

1 **ENVIRONMENTAL ASSESSMENT FOR THE**  
2 **PROPOSED SIMCO TRAINING AREA**

3 **IDAHO ARMY NATIONAL GUARD**

4 **ELMORE COUNTY, IDAHO**



5  
6 Department of the Army  
7 Idaho Army National Guard  
8 3489 W. Harvard Street  
9 Boise, Idaho 83705

10 And

11 U.S. Department of the Interior  
12 Bureau of Land Management  
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16 April 2022

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# ENVIRONMENTAL ASSESSMENT ORGANIZATION

This Environmental Assessment (EA) evaluates the potential environmental, socioeconomic, and cultural effects of the Idaho Army National Guard's (IDARNG) proposal to conduct military training activities, including construction, operation, and maintenance, on 28,430 acres managed by the Bureau of Land Management (BLM), Bureau of Reclamation (BOR), and the Idaho Department of Lands (IDL). As required by the National Environmental Policy Act of 1969 (NEPA; 42 *United States Code* [U.S.C.] 4321 et seq.), the Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA (40 *Code of Federal Regulations* [CFR] 1500-1508), and 32 CFR Part 651 (*Environmental Analysis of Army Actions*, Final Rule), the potential effects of the Proposed Action are analyzed in this EA. This analysis will facilitate the decision-making process by the BLM and National Guard Bureau (NGB) regarding the Proposed Action and its considered alternatives. The document is organized as follows:

- **Executive Summary:** Describes the Proposed Action and its considered alternatives; summarizes environmental, cultural, and socioeconomic consequences; and compares potential effects between the Proposed Action and the No Action Alternative.
- **1.0 Purpose of and Need for the Proposed Action:** Summarizes the purpose of and need for the Proposed Action, provides relevant background information, and describes the scope of the EA.
- **2.0 Description of the Proposed Action and Alternatives:** Describes the Proposed Action Alternative. Presents alternatives for implementing the Proposed Action Alternative, including screening criteria, alternatives retained for further analysis, and alternatives eliminated, as well as a brief explanation of the rationale for eliminating certain alternatives.
- **3.0 Affected Environment and Environmental Consequences:** Describes relevant components of the existing environmental, cultural, and socioeconomic setting (within the region of influence [ROI]) of the considered alternatives. Identifies potential environmental, cultural, and socioeconomic effects of implementing the considered alternatives; and identifies proposed mitigation and management measures, as and where appropriate.
- **4.0 Comparison of Alternatives and Conclusions:** Compares the environmental effects of the No Action Alternative and two considered alternatives and summarizes the significance of potential effects from these alternatives.
- **5.0 References:** Provides bibliographical information for cited sources.
- **6.0 List of Preparers:** Provides a list of individuals who were involved in the preparation of this document.
- **7.0 Agencies and Individuals Consulted:** Provides a list of the agencies and organizations contacted during the preparation of this document.

1 ENVIRONMENTAL ASSESSMENT SIGNATURE PAGE

2 CO-LEAD AGENCY: National Guard Bureau (NGB)  
3 CO-LEAD AGENCY: Bureau of Land Management (BLM)  
4 TITLE OF PROPOSED ACTION: Proposed Simco Training Area  
5 AFFECTED JURISDICTION: Elmore County, Idaho  
6 POINT OF CONTACT: COL Dennis C. Stitt, Idaho Army National Guard,  
7 4715 S. Byrd Street, Boise, Idaho 83705  
8 PROPONENTS: Idaho Army National Guard (IDARNG)

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9 **DOCUMENT DESIGNATION:** Environmental Assessment

10 **ABSTRACT:** The IDARNG proposes to use lands managed by the BLM, Bureau of Reclamation  
11 (BOR), and the Idaho Department of Lands (IDL) for military training activities, including  
12 construction, operation, and maintenance. The proposed project area is approximately 28,430 acres  
13 and is located east of Simco Road in Elmore County, adjacent to the Orchard Combat Training  
14 Center (OCTC). The Proposed Action would require rights-of-way (ROWs) on 12,776 BLM acres,  
15 555 acres of BOR land managed by BLM, and a long-term lease on 15,097 acres of IDL-managed  
16 lands. The majority of the site (20,919 acres or 74 percent) is found within the boundaries of the  
17 Morley Nelson Snake River Birds of Prey National Conservation Area (NCA), with the residual  
18 7,510 acres (26 percent) outside the NCA. The lands outside the NCA comprise 4,175 acres of  
19 IDL-managed land and 3,335 acres of BLM-managed land.

20 Training activities within the area would be managed under, and in accordance with, BLM's 2008  
21 NCA Resource Management Plan (RMP), BLM's 1985 Kuna Management Framework Plan  
22 (BLM 1985), IDL's statewide management plan, IDARNG's Integrated Natural Resource  
23 Management Plan (INRMP), the statewide Integrated Cultural Resource Management Plan  
24 (ICRMP), and other regulatory and military requirements.

25 Site improvements (design features) have been developed to balance proposed IDARNG training  
26 activities with existing resources and uses. These include the use of standard operating procedures  
27 (SOPs), best management practices (BMPs), and site enhancements for mitigation associated with

1 construction, operation, and maintenance activities; the installation of an improved crossing on  
2 Simco Road; the enhancement of 26.1 miles of existing two-track road; and onsite infrastructure  
3 projects (gates, cattle guards, fences, irrigation lines, and Seibert stakes).

4 The IDARNG's purpose for the Proposed Action is to obtain a sufficient amount of accessible,  
5 maneuver training lands to meet Department of Defense (DoD) training requirements, increase  
6 training efficiency, limit user conflicts with the public, comply with the NCA legislation, and to  
7 prepare for and ensure troop combat readiness and safety. The IDARNG needs the proposed  
8 project area to offset the loss of available maneuver training lands within the OCTC associated  
9 with the BLM management outlined in their 2008 RMP. These management guidelines required  
10 that military maneuver activities be restricted to areas with less than 10 percent shrub cover within  
11 the OCTC. As such, the amount of available and usable military maneuver training lands within  
12 the OCTC boundary was reduced from approximately 89,000 acres to approximately 35,000 acres,  
13 a reduction of roughly 54,000 acres or 61 percent of the historically available area. This, coupled  
14 with increasing impacts from public use of the OCTC, means that the amount of available and  
15 affective maneuver training lands within the OCTC is insufficient to meet the existing mission  
16 requirements of the DoD and IDARNG.

17 The purpose of BLM's evaluation of the Proposed Action is to decide whether to grant a ROW  
18 authorization on 12,776 BLM acres and 555 acres of BOR-managed lands to the IDARNG for  
19 maneuver training activities; use and maintenance of a crossing on Simco Road; 13.3 miles of  
20 unpaved roadway (12.6 miles of BLM road; 0.7 miles of BOR road); and associated infrastructure  
21 projects within the proposed project area.

22 The need for BLM's evaluation of the Proposed Action is to respond to IDARNG applications for  
23 use of federally managed public lands pursuant to the Federal Land Policy and Management Act  
24 of 1976 (FLPMA), as amended, 43 *United States Code* (U.S.C.) § 1701 et seq., and the BLM's  
25 ROW regulations, 43 *Code of Federal Regulations* (CFR) Part 2800.

26 This Environmental Assessment (EA) evaluates the effects of the No Action Alternative and the  
27 Proposed Action (Alternatives A and B) with respect to the following resources or resource uses:  
28 land use (livestock grazing, recreation/access, and military training); air quality (greenhouse gases  
29 and climate change, fugitive dust); noise; soils; biological resources and vegetation,  
30 invasive/nonnative species, wildland fire, and special-status species plants; biological resources  
31 and wildlife, special-status species wildlife; cultural resources; socioeconomic and public health  
32 and safety; infrastructure and transportation; and hazardous and toxic materials and wastes  
33 (HTMW). The evaluation performed in this EA supports the conclusion, as documented in the  
34 Finding of No Significant Impact (FONSI), that there would be no significant adverse impact,  
35 either individually or cumulatively, to the local environment or quality of life associated with  
36 implementing the Proposed Action (Alternative A or B) and associated design features specified  
37 in this EA. Therefore, for the IDARNG a Finding of No Significant Impact (FONSI) is the  
38 appropriate decision document for this EA, and an Environmental Impact Statement (EIS) is not  
39 warranted. BLM will issue a separate Decision Record based on the EA, FONSI, and public  
40 comments.

- 1 Project Proponent: Idaho Army National Guard
- 2 Funding Source: MILCON and Operations/Maintenance
- 3 Project Fiscal Year: 2022

1

## EXECUTIVE SUMMARY

2 This Environmental Assessment (EA) evaluates the proposal by the Idaho Army National Guard  
3 (IDARNG) to use lands managed by the Bureau of Land Management (BLM), Bureau of  
4 Reclamation (BOR), and the Idaho Department of Lands (IDL) for military training activities,  
5 including construction, operation, and maintenance. The proposed project area is approximately  
6 28,430 acres, and is located east of Simco Road in Elmore County, Idaho, adjacent to the Orchard  
7 Combat Training Center (OCTC). The proposed project area is located just east of the current  
8 OCTC in southwestern Idaho, approximately 2 miles west of Mountain Home, Idaho, and 25 miles  
9 southeast of Boise, Idaho (Map 1).

10 This EA has been prepared under the provisions of, and in accordance with, the National  
11 Environmental Policy Act of 1969 (NEPA; 42 *United States Code* [U.S.C.] § 4321 et seq.),  
12 Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of  
13 NEPA (40 *Code of Federal Regulations* [CFR] Parts 1500-1508), 43 CFR Part 46 (Implementation  
14 of the National Environmental Policy Act of 1969), and 32 CFR Part 651 (*Environmental Analysis*  
15 *of Army Actions*, Final Rule, 29 March 2002). This EA will facilitate the decision-making process  
16 regarding the Proposed Action and its alternatives considered by the IDARNG and BLM.

17

### PROPOSED ACTION

18 The IDARNG requests from BLM a right-of-way (ROW) on 12,776 acres of BLM-managed,  
19 555 acres of BOR-managed, and seeks from IDL a long-term lease on 15,097 acres of  
20 IDL-managed lands (28,430 total acres) to conduct military training activities (operations),  
21 construction activities, and maintenance/monitoring activities. Military training activities within  
22 the proposed project area would be limited to off-road maneuver activities, isolated engineering  
23 tasks, administrative assembly areas, and force-on-force scenarios using blank fire and multiple  
24 integrated laser engagement system (MILES), or similar non-live fire systems. Training activities  
25 could be conducted as daytime (85 percent) or nighttime operations (15 percent), and would  
26 provide soldiers with on-the-ground, real-life tactical combat scenarios for training purposes.  
27 Military activities within the proposed project area do not include any live-fire training operations  
28 of any kind.

29 Training operations within the proposed project area would only occur from May 1st through  
30 October 31st. Engineering tasks would be limited to 5 acres of temporary disturbance on  
31 BLM-managed lands and 10 acres of temporary disturbance on IDL-managed lands annually  
32 (Maps 6 and 7). Units operating in the area would locate all administrative assembly and support  
33 activities, for single and multiday training events on one of three defined sites (20 acres each)  
34 (Maps 6 and 7). Two of the three sites are located on BLM-managed lands (40 acres), and one is  
35 located on IDL-managed lands (20 acres). Appendix A and **Section 2.3.1** outline an expanded  
36 description of the proposed training activities and vehicles.

37 To balance the proposed training activities with existing resources and uses, site improvements  
38 (design features) and management guidelines were developed through a collaborative process.  
39 These include the installation of an improved road crossing on Simco Road; enhancement of  
40 26.1 miles of existing two-track road; onsite infrastructure projects (gates, cattle guards, fences,

1 irrigation lines, and Seibert stakes) (Map 6 and Map 7), and implementation of best management  
2 practices (BMPs), standard operating procedures (SOPs), and enhancement requirements  
3 (Appendix G) for construction, operation, and maintenance activities. A list of site-specific design  
4 features and management actions is outlined below on page **ES-8** and **ES-9**.

## 5 **PURPOSE AND NEED**

### 6 *Idaho Army National Guard*

7 The purpose of the IDARNG/National Guard Bureau (NGB) Proposed Action is to obtain a  
8 sufficient amount of accessible maneuver training lands to support the IDARNG and DoD's  
9 mission, increase training efficiency, limit user conflicts with the public, comply with the NCA  
10 legislation, and to prepare for and ensure troop combat readiness and safety. In order to accomplish  
11 these goals, the IDARNG needs to offset the loss of available maneuver training lands within the  
12 OCTC associated with the BLM management guidance outlined in the BLM's 2008 RMP. This  
13 would allow the IDARNG and DoD to redistribute existing BLM-authorized maneuver training  
14 activities within the OCTC over a greater area.

15 The BLM's 2008 RMP management guidelines required that military maneuver activities be  
16 restricted to areas with less than 10 percent shrub cover. As a result, the amount of available and  
17 usable military maneuver training lands within the OCTC boundary was reduced from  
18 89,000 acres to approximately 35,000 acres, a reduction of 54,000 acres or 61 percent of the  
19 historically available area. The reduction of usable training lands limits the IDARNG's ability to  
20 disperse training activities and the associated effects to resources over a greater area.

21 In addition, public use of the OCTC has increased in maneuver training areas within the OCTC.  
22 The reduction of available and usable maneuver training lands coupled with the increased public  
23 use has resulted in increased user conflicts, which have further diminished training capacity and  
24 the effectiveness of training operations within the OCTC. These user conflicts have also increased  
25 concerns related to health and safety for training soldiers and the public. As such, the amount of  
26 available and effective maneuver training lands within the current OCTC boundary is insufficient  
27 to meet the following training requirements and timelines of the IDARNG and DoD:

- 28 • Allowing the Brigade Combat Teams (BCTs) to complete an Exportable Combat Training  
29 Capability (xCTC) program within 30 days to better prepare for Large-Scale Combat  
30 Operations (LSCO) and Mission Essential Task List (METL) proficiency.
- 31 • Complying with DoD Instruction Number 1215.06 *Uniform Reserve, Training, and Retirement*  
32 *Categories for the Reserve Components*, which limits National Guard annual training for  
33 soldiers to 30 days each fiscal year, thereby reducing National Guard BCTs' ability to achieving  
34 METL proficiency.
- 35 • Complying with National Guard Regulation (NGR) 350-1 *Army National Guard Training*,  
36 which encourages all elements of a unit to train together whenever possible. Current available  
37 maneuver training lands within the OCTC do not allow for a full BCT to complete an xCTC  
38 and other mandated collective training within 30 days.



- 1 • Providing the capability for LSCO and training over realistic distances, all of which contribute  
2 to the overall strategic readiness of the force.

3 The IDARNG needs the proposed training lands associated with the proposed project area for the  
4 following:

- 5 • Offset the loss of available maneuver training lands within the existing OCTC boundary and  
6 allow for increased dispersal of maneuver training activities.
- 7 • Address increasing training conflicts and concerns related to the health and safety of training  
8 soldiers and the public associated with the growing use of the OCTC by the public.
- 9 • Meet IDARNG mission and DoD training requirements outlined in FM 3-96 *Brigade Combat*  
10 *Team*, TC 25-1 *Training Land*, DoD Instruction Number 1215.06, and NGR 350-1, and prepare  
11 for and ensure troop combat readiness and safety (refer to the aforementioned IDARNG and  
12 DoD mission requirements).
- 13 • Support sustainable range practices by dispersing military training activities over a greater area  
14 and allowing for rest and rotation of areas affected (in other words, allowing vegetative  
15 regeneration and recovery in areas affected) in order to comply with the NCA legislation.

#### 16 ***BLM***

17 The purpose of BLM’s evaluation of the Proposed Action is to decide whether to grant a ROW  
18 authorization on 12,776 BLM acres and 555 acres of BOR-managed lands to the IDARNG for  
19 maneuver training activities and to construct, use, and maintain a crossing on Simco Road,  
20 13.3 miles of unpaved roadway (12.6 miles of BLM road and 0.7 miles of BOR road), and  
21 associated infrastructure projects within the proposed project area.

22 The need for BLM’s evaluation of the Proposed Action is to respond to IDARNG’s application  
23 for use of federally managed public lands pursuant to the Federal Land Policy and Management  
24 Act of 1976 (FLPMA), as amended, 43 U.S.C. § 1701 et seq. and the BLM’s ROW regulations,  
25 43 CFR Part 2800.

#### 26 **ALTERNATIVES**

27 Based on the purpose and need of the IDARNG and DoD, and existing BLM management  
28 guidelines for military training within the OCTC, there are no viable alternatives identified for  
29 expanded training within the OCTC itself. Based on the infrastructure needed to support the  
30 existing mission and associated level of use and training the IDARNG and DoD identified and the  
31 BLM authorized under the 2020 RPMP EA (ARNG and BLM 2020), it would be logistically and  
32 economically infeasible to locate the additional proposed project area anywhere but directly  
33 adjacent to the existing OCTC boundary.

34 As such, it was determined that training lands outside the existing OCTC boundary were needed.  
35 Based on the land ownership and parcel configuration in the region, there were five potential  
36 options for external training lands in the area: private, BLM/BOR, IDL, a combination of private  
37 and BLM/BOR or IDL, and a combination of BLM/BOR and IDL. There are no other land

1 ownerships of sufficient size and in proximity to the OCTC to be economically and logistically  
2 viable alternatives. To address the identified purpose and need in a manner that is logistically and  
3 economically feasible, the IDARNG and NGB evaluated the five potential options using six siting  
4 criteria (**Section 2.6.1**).

5 In addition to the siting criteria, each real estate option was reviewed and assessed based on a set  
6 of defined parameters used to identify whether an alternative was reasonable. These parameters  
7 included proximity to the OCTC, size, configuration, use agreement and cost, management  
8 considerations and training limitations, and user conflicts. **Section 2.6.1** provides an expanded  
9 description of the siting criteria, assessment process, and results. Based on the defined criteria and  
10 assessment process, there was only one land use option (a combination of BLM/BOR and IDL)  
11 that fully met the IDARNG/DoD purpose, need, and assessment criteria. Alternatives that did not  
12 meet the IDARNG/DoD purpose, need, and assessment criteria were eliminated from further  
13 consideration, with the justification outlined in **Section 2.6**. Additional proposed alternatives were  
14 also identified in comments received during the public scoping process in 2018 and 2021 and  
15 incorporated into **Sections 2.3, 2.4, 2.5, and 2.6**.

16 Because the BLM/BOR and IDL-managed lands configuration is the only alternative that fully  
17 meets all six siting criteria and the IDARNG/DoD's and BLM's purpose and need, the proposed  
18 boundary of the proposed project area is consistent across all alternatives, other than the No Action  
19 Alternative. Similarly, the proposed design features and management considerations were  
20 developed to address proposed military training activities are also consistent across all alternatives  
21 based on feedback from BLM, IDL, and the existing stakeholders, defined military training  
22 requirements, and the existing management requirements for the OCTC outlined in the 2008 NCA  
23 RMP and IDARNG's INRMP and statewide ICRMP. However, additional site-specific design  
24 features and management considerations were also identified so that a full range of alternatives  
25 could be assessed, including the No Action Alternative (**Section 2.2**).

26 Site-specific design features and management actions that would be consistent across both  
27 alternatives, not including the No Action Alternative, would include the following:

- 28 • All existing training support activities the IDARNG has currently implemented would be  
29 implemented at the proposed project area
- 30 • Designation of 2,040 acres of residual shrub habitat as off limits (no training activities  
31 permitted)
- 32 • Construction and maintenance of a single improved crossing site on Simco Road
- 33 • Enhancement and maintenance of 137,808 linear feet (26.1 miles) of existing two-track road
- 34 • Removal of approximately 74,500 linear feet (14.1 miles) of 4-strand barbed wire fence
- 35 • Replacement of approximately 93,760 linear feet (17.8 miles) of buried water lines (all on state  
36 lands)

- 1 • Replacement of two tension gates with 30-foot metal access gates
- 2 • Construction and maintenance of three hardened assembly areas (60 acres)
- 3 • Construction and maintenance of up to 28 cattle guards or metal gates (20-foot)
- 4 • Authorization of up to 15 acres (5 acres on BLM-managed land and 10 acres on IDL-managed
- 5 land) for engineering/digging

6 **Table ES-1** summarizes site-specific design features and management actions that would vary  
 7 across alternatives, including the No Action Alternative. IDARNG’s preferred alternative is  
 8 Alternative A. These site-specific design features are used to develop a full range of alternatives  
 9 that meet the purpose and need of the IDARNG/DoD and BLM.

10 **Table ES-1. Summary of Proposed Action and Alternative Design Features**

Alternative	Specific Design Features
No Action	1. There would be no military training activities within the proposed project area. 2. Existing land uses (livestock grazing and public access/recreation) would continue.
Alternative A	1. Proposed training activities, infrastructure, and support (same for Alternatives A and B) 2. Off-limit areas associated with the cultural protection plan would not be fenced. 3. Total of new fence within the proposed project area would be 21,226 linear feet (4.0 miles). 4. Engineering exercises (5-acre dig site) on BLM-managed lands would have undefined boundaries (located at any location on BLM-managed lands, but not to exceed 5 acres) and would occur annually. 5. Maximum 30 days of restricted access annually to BLM-managed lands would be provided within the proposed project area during training activities. 6. Permanently locked gate at Simco Road access point.
Alternative B	1. Proposed training activities, infrastructure, and support (same for Alternatives A and B) 2. Off-limit areas associated with the cultural protection plan on BLM-managed lands would be fenced with an additional 20,270 linear feet (3.8 miles of new fence). 3. Total new fence within the proposed project area would be 30,986 linear feet (5.9 miles). 4. Engineering exercises (5-acre dig site) on BLM-managed land would have defined boundaries (located within a defined area but not to exceed 5 acres) and would occur annually. 5. There would be no 30-day public restriction for accessing BLM-managed lands during military training activities. 6. There would be no gate lock at the Simco Road access point.

1 **AFFECTED ENVIRONMENT**

2 The region of influence (ROI), also referred to as the area of effect, was defined separately for  
3 each resource and resource use based on the best available information and professional opinion  
4 of the resource specialist(s) on the BLM/IDARNG interdisciplinary team (IDT). The affected  
5 environment describes the existing conditions of the ROI for each resource and resource use. At a  
6 minimum, the defined ROI for each resource or resource use includes the 28,430-acre proposed  
7 project area located in Elmore County, Idaho (Map 1 and Map 2) and **Section 3.0**).

8 **ENVIRONMENTAL CONSEQUENCES**

9 The Proposed Action and Alternatives were evaluated to determine their potential impact(s) on the  
10 physical, environmental, cultural, and socioeconomic aspects of the proposed project area and  
11 ROIs. Technical areas evaluated include land use, air quality and climate change (Greenhouse  
12 Gases), noise, soils, biological resources, cultural resources, socioeconomic and public health and  
13 safety, transportation and infrastructure, and hazardous and toxic materials and wastes.  
14 Alternatives A and B, and the No Action Alternative would result in the potential impacts  
15 identified throughout **Section 3.0**. An alternatives comparison matrix is also outlined in  
16 **Section 4.2**, Table 4-1 on page 4-2.

17 **MITIGATION MEASURES/ENHANCEMENT**

18 Based on the impacts from the Proposed Action outlined in Alternatives A and B, coupled with  
19 the proposed design features, management actions, and implemented BMP/SOPs outlined in  
20 Appendix G, the Proposed Action (Alternatives A and B) would not exceed the significance  
21 threshold of the resources and uses considered. As such, there would be no mitigation actions  
22 required to reduce the level of significance for any resource or use assessed (**Section 3.0**), such as  
23 a mitigated Finding of No Significant Impact.

24 However, as part of the BLM’s ROW authorization process, enabling legislation, and the  
25 2020 MOU (Appendix B), the IDARNG is required to mitigate the impacts of all authorized  
26 ROWs within the NCA; that is, the authorized ROW must have a net enhancement on the natural  
27 and cultural resources of the NCA. This requirement is defined under the Public Law (PL) 103-64  
28 and the 2020 BLM/Idaho Military Division (IMD) MOU (Appendix B). To address this BLM  
29 requirement, the IDARNG and BLM have developed a standardized method to quantitatively  
30 assess the amount of mitigation required at a designated site to enhance the NCA for issuance of a  
31 ROW (Appendix G).

32 Based on this standardized process, the IDARNG must enhance the structural and/or functional  
33 components of a designated site (within or directly adjacent to the NCA) to a specified level, as  
34 defined by the BLM and IDARNG. As a model based-approach, it is assumed that enhancement  
35 would be successful over time, resulting in a positive net enhancement score for the NCA (that is,  
36 greater than a 1:1 ratio) (Appendix G). In the event enhancement methods are not successful, or  
37 there is not an established trend toward success over time, the BLM and IDARNG, through an  
38 adaptive process, shall adjust the methods. These alternative methods could include increased

1 restoration/rehabilitation rates, additional funding requirements, or the limitation or restriction of  
2 the IDARNG’s authorized ROW within the authorized ROW.

3 **CONCLUSIONS**

4 Based upon the evaluation in this EA, implementation of the Proposed Action (Alternatives A  
5 and B) would not have a significant adverse effect on any environmental, cultural, physical, or  
6 socioeconomic resources this analysis considers. Because the Proposed Action would not  
7 significantly affect any of the resources considered, no mitigation measures are required to reduce  
8 the level of significance below the threshold for significance. The NEPA analysis assumes that all  
9 identified design features, management actions, BMP/SOPs, and enhancement requirements  
10 would be implemented as part of the Proposed Action.

11 The No Action Alternative would maintain existing conditions (that is, the proposed project area  
12 would not be used for maneuver training activities and the IDARNG would not require a ROW  
13 from the BLM/BOR). Implementing the No Action Alternative would adversely affect military  
14 training activities, not provide the local economic benefits associated with military training  
15 activities and provide no additional resources for suppression of wildland fires or management of  
16 natural and cultural resources the Proposed Action identifies. In addition, the No Action  
17 Alternative would not meet the IDARNG’s purpose and need of the project.

18 The purpose of this EA is to facilitate a decision and to ensure that policies defined by NEPA and  
19 contained in BLM/Army regulations, the Army National Guard NEPA Handbook (2011), BLM  
20 NEPA Handbook (BLM 2008a), and other guiding documents and regulations are adhered to.  
21 Based upon the analysis of potential impacts, it has been determined through a Finding of No  
22 Significant Impact, that the Proposed Action would not significantly affect the human  
23 environment. Therefore, an EIS is not warranted.

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## ACRONYMS AND ABBREVIATIONS

1		
2	°F	degree(s) Fahrenheit
3	ABCT	Armored Brigade Combat Team
4	AFB	Air Force Base
5	AIRFA	American Indian Religious Freedom Act
6	APE	area of potential effect
7	AR	Army Regulation
8	Army	Department of the Army
9	ARNG	Army National Guard
10	ARPA	Archaeological Resources Protection Act
11	AUM	animal unit month
12	BA	biological assessment
13	BCT	Brigade Combat Team
14	BLM	Bureau of Land Management
15	BMP	best management practice
16	BOR	Bureau of Reclamation
17	BSC	biological soil crust
18	CAA	Clean Air Act
19	CEQ	Council on Environmental Quality
20	CFR	<i>Code of Federal Regulations</i>
21	CH <sub>4</sub>	methane
22	CO	carbon monoxide
23	CO <sub>2</sub>	carbon dioxide
24	CO <sub>2</sub> e	carbon dioxide equivalent
25	dB	decibel
26	dBA	A-weighted decibel
27	dBp	peak decibel
28	DEQ	Idaho Department of Environmental Quality
29	DNL	Day-Night Average Sound Level

1	DoD	Department of Defense
2	EA	Environmental Assessment
3	EIS	Environmental Impact Statement
4	EJ	environmental justice
5	EMO	Environmental Management Office
6	EMS	emergency medical services
7	EO	element occurrence
8	EPA	U.S. Environmental Protection Agency
9	EPCRA	Emergency Planning and Community Right-to-Know Act
10	ESA	Endangered Species Act
11	FLPMA	Federal Land Policy and Management Act
12	FM	Field Manual
13	FONSI	Finding of No Significant Impact
14	FR	<i>Federal Register</i>
15	FRFO	Four Rivers Field Office
16	GHG	greenhouse gas
17	GHG-CC	greenhouse gas-climate change
18	HIZ	Habitat Integrity Zone
19	HTMW	hazardous and toxic materials and wastes
20	ICRMP	Integrated Cultural Resource Management Plan
21	IDARNG	Idaho Army National Guard
22	IDL	Idaho Department of Lands
23	IDT	interdisciplinary team
24	IMD	Idaho Military Division
25	INRMP	Integrated Natural Resource Management Plan
26	ITAM	Integrated Training Area Management
27	JBCP	Joint Battle Command Platform
28	km	kilometer(s)
29	kV	kilovolt(s)
30	LSCO	Large-Scale Combat Operations

1	LUPZ	Land Use Planning Zone
2	MATES	Mobilization and Training Equipment Site
3	METL	Mission Essential Task List
4	MILES	multiple integrated laser engagement system
5	mm	millimeter(s)
6	MOU	Memorandum of Understanding
7	N <sub>2</sub> O	nitrous oxide
8	NAAQS	National Ambient Air Quality Standards
9	NAGPRA	Native American Graves Protection and Repatriation Act
10	NCA	Morley Nelson Snake River Birds of Prey National Conservation Area
11	NEPA	National Environmental Policy Act
12	NG	National Guard
13	NGB	National Guard Bureau
14	NGR	National Guard Regulation
15	NHPA	National Historic Preservation Act
16	NO <sub>2</sub>	nitrogen dioxide
17	NRHP	National Register of Historic Places
18	O <sub>3</sub>	ozone
19	OCTC	Orchard Combat Training Center
20	OHV	off-highway vehicle
21	Opfor	opposition force
22	OTA	Orchard Training Area
23	Pb	lead
24	PCH	Proposed Critical Habitat
25	PL	Public Law
26	PM	particulate matter
27	POL	petroleum, oils, and lubricants
28	PVC	polyvinyl chloride
29	RCRA	Resource Conservation and Recovery Act
30	RCTA	range condition trend analysis

1	RCTC	Regional Collective Training Capability
2	RMP	Resource Management Plan
3	ROI	region of influence
4	ROW	right-of-way
5	RPMP	Real Property Master Plan
6	SHPO	State Historic Preservation Office
7	SO <sub>2</sub>	sulfur dioxide
8	SONMP	Statewide Operational Noise Management Plan
9	SOP	standard operating procedure
10	TC	Training Circular
11	TRI	Toxic Release Inventory
12	USACE	U.S. Army Corps of Engineers
13	U.S.C.	<i>United States Code</i>
14	USDOJ	U.S. Department of Interior
15	USFWS	U.S. Fish and Wildlife Service
16	VRM	Visual Resource Management
17	WEG	wind erodibility group
18	WEI	wind erodibility index
19	xCTC	Exportable Combat Training Capability



# 1.0 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

## 1.1 INTRODUCTION

This Environmental Assessment (EA) evaluates the proposal by the Idaho Army National Guard (IDARNG) to use lands managed by the Bureau of Land Management (BLM), Bureau of Reclamation (BOR), and Idaho Department of Lands (IDL) for military training activities, including construction, operation, and maintenance. The proposed project area is approximately 28,430 acres and is located in Elmore County (southwestern Idaho) just east of Simco Road and the Orchard Combat Training Center (OCTC). It is approximately two miles west of Mountain Home, Idaho, and 25 miles southeast of Boise, Idaho (Map 1).

The proposal would require rights-of-way (ROWs) on 12,776 BLM acres, 555 BOR acres of land managed by BLM (herein referred to as “BLM/BOR” or “BOR land managed by BLM”), and a long-term lease on 15,097 acres of IDL-managed lands (Map 2). The BLM manages BOR land through a 1982 Interagency Agreement. The majority of the site (20,919 acres or 74 percent) is found within the boundaries of the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA), with the residual 7,510 acres (26 percent) outside the NCA. All proposed military training activities (**Section 2.3.1** and Appendix A) would be managed under the BLM’s 2008 NCA Resource Management Plan (RMP), the BLM’s 1985 Kuna Management Framework Plan, the IDL lease agreement, IDARNG’s Integrated Natural Resource Management Plan (INRMP) and statewide Integrated Cultural Resource Management Plan (ICRMP), and all pertinent regulatory and military requirements.

### 1.1.1 Morley Nelson Snake River Birds of Prey National Conservation Area and Orchard Combat Training Center Background

The IDARNG and Department of Defense (DoD) have conducted military training operations in the area associated with the OCTC (Map 1), formerly known as the Orchard Training Area (OTA), since 1953, with active military training in the area since the early 1940s. In 1971, Public Land Order 5133 established the Snake River Birds of Prey Natural Area to protect one of the densest known nesting populations of raptors in North America. Because of Public Land Order 5133, the OCTC training boundary was reduced from 181,900 acres to 157,000 acres. In 1976, the training area was further reduced to 145,160 acres through an amended special land use permit (I-05958 and I-2271). During the following years, the BLM and IDARNG conducted a research program to study habitat needs of raptors and determined the importance of foraging habitat on bench lands north of the Snake River Canyon. Based on this research, Public Land Order 5777 established the Snake River Birds of Prey Conservation Area (482,640 acres) in 1980. On August 4, 1993, Congress enacted Public Law (PL) 103-64 (Appendix B) herein referred to as an “Act,” which provided permanent protection to the area, now known as the NCA.

Management responsibility for the NCA resides with the BLM, Boise District Office, and Four Rivers Field Office (FRFO). However, Section 5(B) of the Act specifically provides for “continued military use, consistent with the requirements of Section 4(e) of this Act, of the OTA by reserve components of the Armed Forces.” Use of the NCA/OCTC by the IDARNG and DoD as a military training center is authorized in accordance with the 2020 Memorandum of Understanding (MOU)

1 between the BLM and the Idaho Military Division (IMD) pursuant to the provisions outlined in  
2 Section 1(B) of PL 103-64 (Appendix B). Continued authorization of military training within the  
3 NCA/OCTC is managed under the BLM's 2008 NCA RMP, with the associated effects of  
4 continued and expanded military training activities in the NCA assessed in the Environmental  
5 Impact Statement (EIS) for BLM's 2008 NCA RMP (BLM 2008b).

6 While management authority of the NCA resides with the BLM, the IDARNG has been stewarding  
7 the lands associated with the OCTC since 1953, with an active conservation program in place since  
8 1987. Since 1987, the IDARNG's Conservation, Environmental Compliance, Integrated Training  
9 Area Management (ITAM), and Wildland Fire Programs have managed the natural and cultural  
10 resources within the OCTC. These programs have provided significant resources (funding,  
11 resource specialist/subject matter experts, equipment, and infrastructure) for monitoring,  
12 protecting, and restoring natural resources; monitoring and protecting cultural resources and  
13 coordination with regional Tribes; enhancing existing habitat; controlling invasive and noxious  
14 weeds; actively rehabilitating military training impacts; and performing wildland fire suppression  
15 and rehabilitation.

16 Based on the long-term management and successful implementation of these programs, the OCTC  
17 has been able to conduct military training operations while still maintaining the largest contiguous  
18 stand of sagebrush, and some of the best residual habitat for raptors and other special-status  
19 species, in the NCA. Specifically, the OCTC has one of the largest concentrations of observed  
20 raptors outside the Snake River Canyon, and it contains one of the largest populations of slickspot  
21 peppergrass (*Lepidium papilliferum*), which is a federally listed species under the Endangered  
22 Species Act (ESA). Included in the OCTC are "7,213 acres of occupied slickspot peppergrass  
23 habitat, which represents some of the highest-quality occupied slickspot peppergrass habitat  
24 remaining in the Snake River Plain region" (BLM 2011, pg. 17).

25 In order to monitor the impacts of military training on the resources of the OCTC/NCA, including  
26 the effectiveness of the IDARNG's management of the OCTC relative to the surrounding lands in  
27 the NCA, the IDARNG's conservation program has been collecting vegetation monitoring data on  
28 over 300 plots within and outside the OCTC since 1990 (31 years). Based on this data and regional  
29 fire data (Appendix C), the following trends have been identified:

- 30 • Native vegetation cover has not changed significantly within or outside the OCTC.
- 31 • Exotic (non-native) vegetation cover has not changed significantly within the OCTC, but has  
32 significantly changed (increased) outside the OCTC.
- 33 • Native shrub cover has not changed significantly outside the OCTC, but has significantly  
34 changed (increased) inside the OCTC.
- 35 • Native shrub density has significantly decreased within and outside the OCTC, but the rate of  
36 decrease in shrub density has been significantly higher outside the OCTC.
- 37 • Cheatgrass and shrub communities with cheatgrass understory cover are disproportionately  
38 higher outside of the OCTC than within the OCTC.

- 1 • The total area burned at least once within the OCTC is disproportionately lower than outside  
2 of the OCTC.

### 3 **1.1.2 Orchard Combat Training Center Military Mission and Public Use Conflicts**

4 The primary mission of the OCTC is to make available a sufficient amount of accessible,  
5 maneuver, and live fire training lands, with annual training facilities, to meet current IDARNG  
6 mission and DoD training requirements as outlined in Field Manual (FM) 3-96 *Brigade Combat*  
7 *Team* (Army 2015) and Training Circular (TC) 25-1 *Training Land* (Army 1978), and to prepare  
8 for and ensure troop combat readiness and safety. These training lands are provided first to the  
9 IDARNG personnel, then to DoD Active, Guard, and Reserve Forces (as needed), and then to other  
10 government and civilian organizations when possible.

11 The OCTC provides training for both the federal and state missions of the IDARNG. The state  
12 missions are to provide assistance as requested to the Governor during state emergencies, including  
13 natural disasters, civil disturbance, or terrorist attacks. During times of national emergencies, the  
14 President reserves the right to mobilize the IDARNG, putting them in federal duty status. The  
15 OCTC has the following specific mission requirements:

- 16 • Provide a training area for IDARNG and DoD Active and Reserve Forces
- 17 • Provide assistance, facilities, and training areas for logistical support to units conducting  
18 inactive duty training and annual training
- 19 • Provide small-arms and crew-served weapons qualification ranges and facilities
- 20 • Provide maneuver areas suitable for training heavy armor and mechanized units
- 21 • Provide range facilities for M1A1 and M1A2 tank series, Strykers, and Bradley fighting  
22 vehicles
- 23 • Provide for artillery gunnery and maneuver
- 24 • Provide for AH-64 Apache and UH-60 attack helicopter gunnery
- 25 • Provide or coordinate organizational and direct support maintenance facilities for units  
26 conducting training
- 27 • Provide training areas and facilities to local law enforcement agencies, civil defense  
28 organizations, Reserve Officers Training Corps departments, public education institutions, and  
29 other civilian activities as long as no interference occurs with existing military training  
30 activities

31 The DoD currently designates the OCTC as a brigade-level training center and mobilization site  
32 for the IDARNG, and the OCTC provides for maneuver, aviation, and weapons training. For the  
33 purposes of this document, the term “maneuver training and activities” is associated with the  
34 movement of personnel and vehicles across the landscape, according to the requirements of a

1 training exercise. This may include foot traffic and the use of all vehicle types (tracked and  
2 wheeled) both on and off road in designated areas. Maneuver training activities have historically  
3 been conducted on 21 identified maneuver areas outside the Impact Area (Map 3). Maneuver areas  
4 are used for vehicle driver familiarization, armored vehicle crew maneuver proficiency, scout  
5 squad proficiency, platoon and company-level tactics and maneuver, and other combat support  
6 training (Appendix A). Off-road maneuver exercises have been authorized and conducted on all  
7 89,000 acres of the OCTC prior to 2008, with historic levels of use in the 1970s and 1980s far  
8 exceeding what is currently authorized (NGB/BLM 2020).

9 At roughly 143,000 acres, the OCTC is one of the largest heavy force (armor/mechanized) training  
10 areas in the United States. However, only a portion of the OCTC is currently available for  
11 maneuver training activities due to management requirements implemented in the BLM's 2008  
12 NCA RMP. These requirements limited maneuver training activities to areas with less than  
13 10 percent shrub cover (10 percent rule) within the OCTC. Because of these training limitations,  
14 the amount of available and usable military maneuver training lands within the OCTC boundary  
15 was reduced from 89,000 acres to approximately 35,000 acres, a reduction of roughly 54,000 acres  
16 or 61 percent of the historically available maneuver training area.

17 The residual 53,500 acres of the OCTC are associated with the Impact Area (Map 3). With the  
18 exception of designated artillery and mortar-firing positions on A-8, C-1, C-2, and C-3, all  
19 weapons firing that military units conduct occurs within the Impact Area to protect human safety  
20 and control the effects of training-related fires on the landscape. The Impact Area is located at the  
21 center of the OCTC and has 20 active firing ranges. It serves as the target area for helicopter,  
22 small-arms, artillery, tank, and mortar firing.

23 The Impact Area is the only area within the OCTC that is closed to public access. The area was  
24 withdrawn from public access through a BLM public land closure process in 1986 (FR 1986)  
25 pursuant to 43 Code of Federal Regulations (CFR) 8384.1(a). Though the area is not fenced, there  
26 are signs every 656 feet to warn the public and troops of the danger in that area.

27 The remainder of OCTC (maneuver areas) is open to public use for livestock grazing and public  
28 recreation, including target shooting, hunting,<sup>1</sup> off-road vehicles, wildlife viewing, and other uses.  
29 Because the IDARNG has no management authority for these types of uses outside the Impact  
30 Area, and the public has legal access to all maneuver training areas within the OCTC, there have  
31 been instances where military training activities and public uses have come into conflict, which is  
32 commonly referred to as public use conflicts or user conflicts.

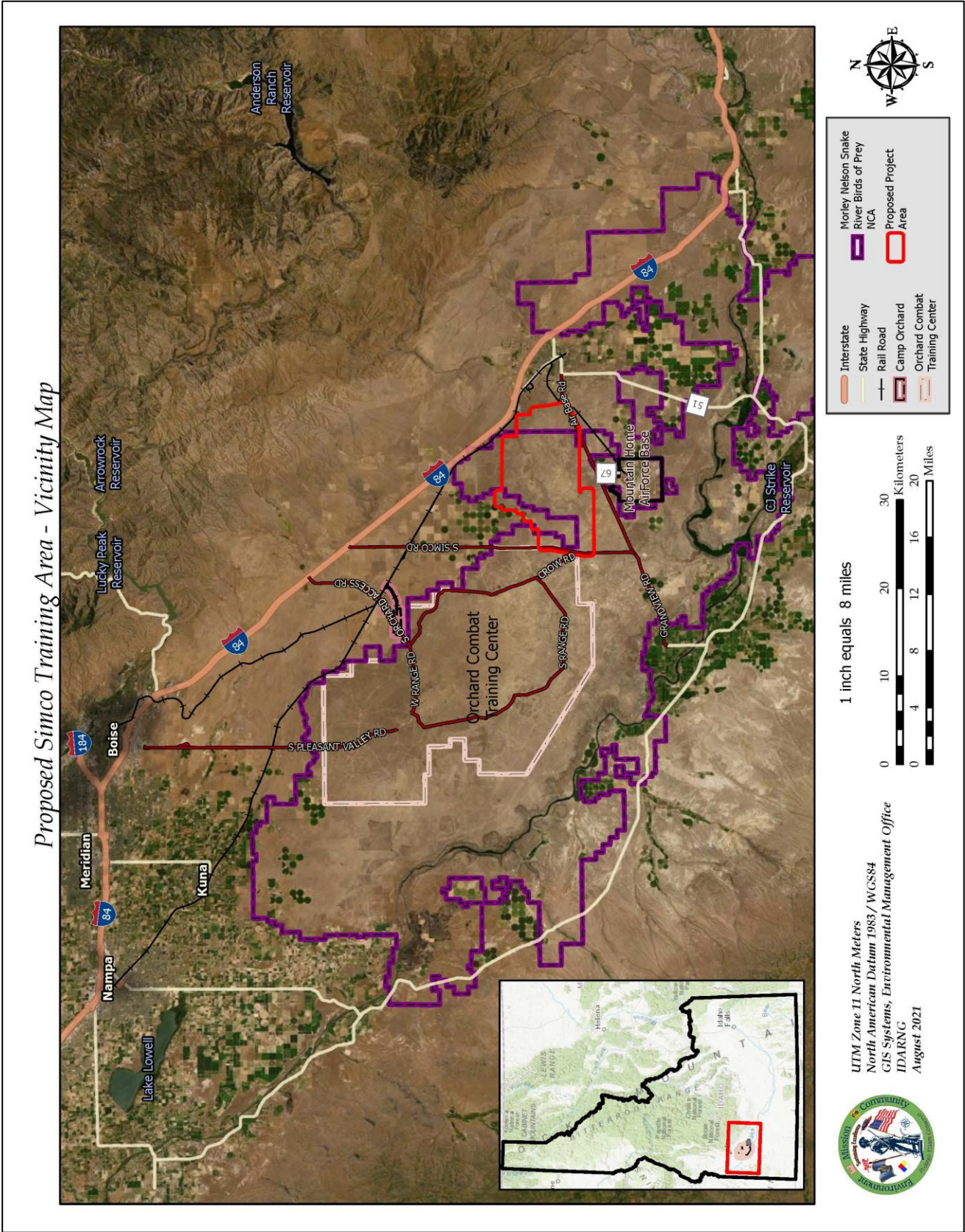
33 Under current OCTC training guidelines (IDARNG Regulation 350-12 *Training Policy and*  
34 *Procedures for the Orchard Combat Training Center*), if there is a conflicting use, the military  
35 units cease training activities and leave the site, suspend activities until the public users have left,  
36 or suspend activities until they are able to communicate with the public users. In some cases the  
37 health and safety of the training soldiers are put at risk, but in all cases, there is a loss of training

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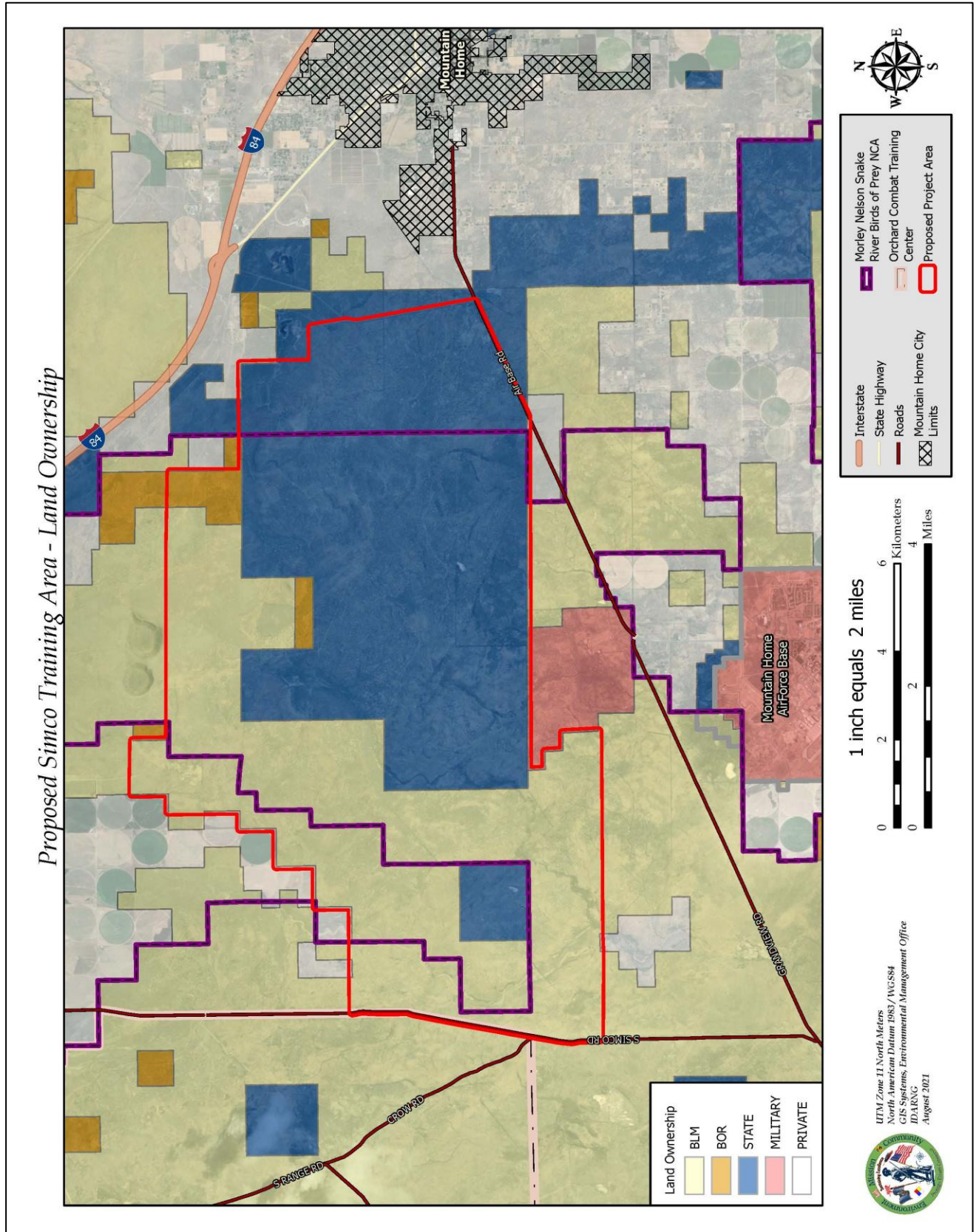
1 Hunting in this area is typically characterized as the shooting of nongame species, such as Piute ground squirrels, which occurs from January to July throughout the OCTC.

1 time and tempo, which diminishes the overall training capacity and effectiveness. As an example,  
2 the IDARNG has suspended multiple land navigation operations (foot traffic) annually within the  
3 Alpha-4, Bravo-5, and Charlie-3 land navigation courses for safety purposes. Specifically, training  
4 activities are suspended because members of the public have started shooting on the ridge above  
5 the unit not knowing they were putting soldiers in danger. Similarly, public shooters have been  
6 asked to shoot in other areas or directions because they were firing at occupied bivouacs and  
7 assembly areas, and there have been instances where military units conducting off-road maneuver  
8 training activities have suspended or moved training operations because public shooters had hit  
9 stationary and moving vehicles. To date, there have been no recorded public shooting events  
10 resulting in an injury to military training personal or IDARNG staff. However, there have been  
11 multiple livestock shot and killed, or maimed, by public shooters in the OCTC/NCA, and many  
12 reported “close calls” where public shooters were shooting at and nearly hitting other public users  
13 and IDARNG staff. Regrettably, on January 2, 2021 there was an accidental shooting on the  
14 northern boundary of the OCTC by public users resulting in the death of a civilian.

15 Based on observed trends over the last 20 years, public use of the OCTC has continued to increase.  
16 As the number of public users has increased, there have been a greater number of user conflicts,  
17 which has increased concerns related to the health and safety of training soldiers and the public  
18 and diminished training capacity and effectiveness in the OCTC. While there is no long-term use  
19 data associated with the OCTC or NCA, the IDARNG conducted a use/user inventory from  
20 July 2019 to June 2020. The report identified approximately 26,500 civilian vehicles had accessed  
21 the OCTC via Pleasant Valley Road in that timeframe (IDARNG 2020a). It is assumed that public  
22 use of the OCTC, as well as the number of user conflicts, will continue to grow at a rate  
23 commensurate with the increasing population of Ada, Canyon, and Elmore Counties.

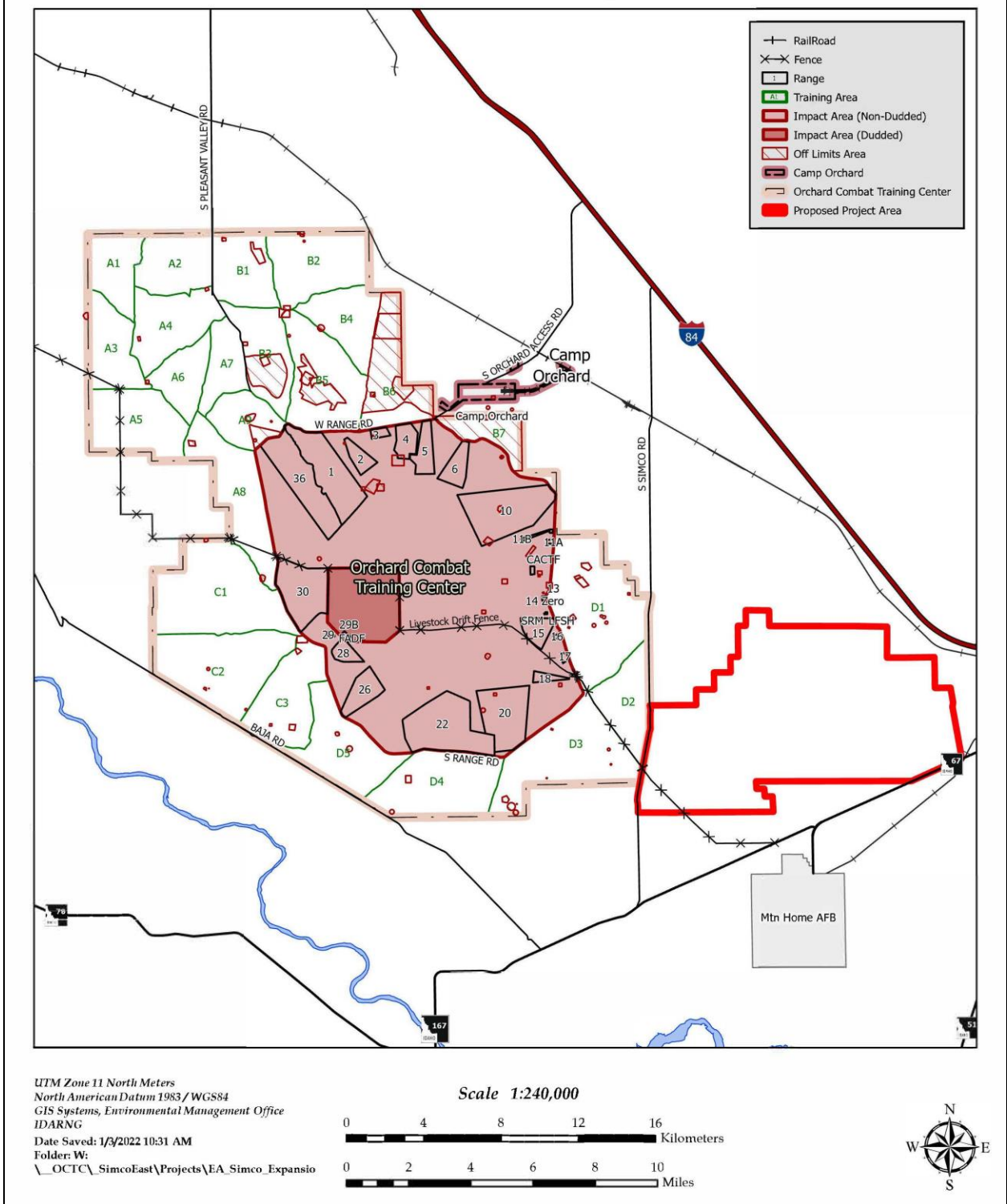


1  
2 **Map 1. Location of the Proposed Project Area**



1  
2 **Map 2. Proposed Project Area Land Ownership**

## Training and Range Areas Orchard Combat Training Center



1

2 **Map 3. OCTC Maneuver Areas**



1 **1.2 PURPOSE AND NEED**

2 **1.2.1 IDARNG Purpose and Need Statement**

3 The purpose of the IDARNG/National Guard Bureau (NGB) Proposed Action is to mitigate the  
4 loss of available maneuver training lands within the OCTC, and to obtain a sufficient amount of  
5 accessible maneuver training lands to support the mission of the IDARNG and DoD, increase  
6 training efficiency, limit user conflicts with the public, comply with the NCA legislation, and to  
7 prepare for and ensure troop combat readiness and safety. The BLM’s 2008 NCA RMP  
8 management guidelines required that military maneuver activities within the OCTC be restricted  
9 to areas with less than 10 percent shrub cover. As a result, the amount of available and useable  
10 military maneuver training lands within the OCTC boundary was reduced from 89,000 acres to  
11 approximately 35,000 acres, a reduction of roughly 54,000 acres or 61 percent of the historically  
12 available area. As such, the amount of available and effective maneuver training lands within the  
13 current OCTC boundary is insufficient to meet the training requirements and associated timelines  
14 the IDARNG and DoD require. Specifically, the amount of land does not:

- 15 • Allow Brigade Combat Teams (BCTs) sufficient area to complete an Exportable Combat  
16 Training Capability (xCTC) program within 30 days to better prepare for Large-Scale Combat  
17 Operations (LSCO) and Mission Essential Task List (METL) proficiency.
- 18 • Comply with DoD Instruction Number 1215.06 *Uniform Reserve, Training, and Retirement*  
19 *Categories for the Reserve Components*, which limits National Guard annual training for  
20 soldiers to 30 days each fiscal year, thereby reducing National Guard BCTs’ ability to  
21 achieving METL proficiency.
- 22 • Comply with National Guard Regulation (NGR) 350-1 *Army National Guard Training*, which  
23 encourages all elements of a unit to train together whenever possible. Current available  
24 maneuver training lands within the OCTC do not allow for a full BCT to complete an xCTC  
25 and other mandated collective training within 30 days.
- 26 • Provide the capability for LSCO and training over realistic distances, all of which contribute  
27 to the overall strategic readiness of the force.

28 The IDARNG needs the Proposed Action and associated training lands to achieve the following:

- 29 • Meet IDARNG mission and DoD training requirements outlined in FM 3-96 *Brigade Combat*  
30 *Team*, TC 25-1 *Training Land*, DoD Instruction Number 1215.06, and NGR 350-1, and to  
31 prepare for and ensure troop combat readiness and safety (refer to the aforementioned  
32 IDARNG and DoD mission requirements).
- 33 • Offset the growing use of the OCTC by the public and associated increases in training conflicts  
34 that have resulted in greater concerns for the health and safety of training soldiers and the  
35 public.
- 36 • Support sustainable training practices by dispersing military training activities over a greater  
37 area and allowing for rest and rotation of areas affected (that is, allowing vegetative  
38 regeneration and recovery in areas affected) in order to comply with the NCA legislation.

1 **1.2.2 BLM Purpose and Need Statement**

2 The purpose of BLM’s evaluation of the Proposed Action is to decide whether to grant a ROW  
3 authorization on 12,776 BLM acres and 555 acres of BOR-managed lands to the IDARNG for  
4 maneuver training activities, and to construct, use, and maintain a crossing on Simco Road, 13.3  
5 miles of unpaved roadway (12.6 BLM roads and 0.7 BOR roads), and associated infrastructure  
6 projects within the proposed project area.

7 The need for BLM’s evaluation of the Proposed Action is to respond to the IDARNG’s application  
8 for use of federally managed public lands pursuant to the Federal Land Policy and Management  
9 Act of 1976 (FLPMA), as amended, 43 United States Code (U.S.C.) § 1701 et seq. and the BLM’s  
10 ROW regulations, 43 CFR Part 2800.

11 **1.3 DECISION MAKING**

12 The BLM and National Guard Bureau (NGB) share decision-making authority this EA because a  
13 large portion of the acreage affected by the Proposed Action is on BLM-managed lands. The BLM  
14 and NGB entered into an MOU to act as Joint Lead Agencies, and the two entities have been  
15 engaged since the initiation of the EA process (NGB and BLM 2021).

16 Per 10 U.S.C. 10501, the NGB is a joint activity of the DoD. Pursuant to DoD Directive 5105.77  
17 dated October 30, 2015, the NGB serves as the principal advisor to U.S. Army on matters involving  
18 IDARNG and is responsible for implementing DoD guidance on the structure and strength  
19 authorizations of IDARNG. National Guard Bureau is responsible for ensuring that IDARNG  
20 activities are performed in accordance with applicable policies and regulations. As such, NGB is  
21 the lead federal agency responsible for preparing National Environmental Policy Act  
22 (NEPA)-compliant documentation on projects for which IDARNG is the proponent. In that  
23 capacity, NGB is ultimately responsible for decision making, environmental analyses, and  
24 documentation; however, the local responsibility for NEPA document preparation falls to the  
25 IDARNG.

26 This EA will analyze the potential for significant environmental effects associated with  
27 implementing the Proposed Actions and the No Action Alternative. If the analyses this EA present  
28 indicate that the Proposed Action would not result in significant environmental or socioeconomic  
29 effects, then the IDARNG will prepare a Finding of No Significant Impact (FONSI). A FONSI  
30 briefly presents the reasons why a proposed action would not have a significant effect on the human  
31 environment and why an EIS would not be necessary.

32 Similarly, and in accordance with its NEPA compliance process, BLM would also sign a Finding  
33 of No Significant Impact (FONSI) that would signify that the selected alternative would not result  
34 in effects of sufficient context and intensity that an EIS is required. The NGB FONSI is a decision  
35 document; however, the BLM FONSI is not. If the Proposed Action is selected, the BLM will sign  
36 a Decision Record authorizing the issuance of a ROW grant and the IDARNG will proceed with  
37 implementation.

1 If the analyses this EA present indicate that significant environmental effects would result from  
2 the Proposed Action that cannot be mitigated to insignificance, a Notice of Intent to prepare an  
3 EIS would be required or no action would be taken.

#### 4 **1.3.1 Army National Guard Decision to Be Made**

5 Based on analyses conducted for this EA, the IDARNG will decide on one of two courses of action:  
6 (1) select one of the presented alternatives that satisfies the purpose and need of the project and  
7 sign a FONSI that will allow implementation of one of the project alternatives; or (2) initiate the  
8 preparation of an EIS if the findings of the EA identify significant impacts (or controversy) that  
9 would result from implementation of one of the project alternatives.

#### 10 **1.3.2 Bureau of Land Management Decision to Be Made**

11 Based on the information in the EA, BLM will decide whether to approve the proposed training  
12 activities and infrastructure actions on BLM-managed lands within the proposed project area, or  
13 not. The FRFO Manager is the responsible officer who will decide one of the following:

- 14 • Approve the proposed training activities and infrastructure actions, as proposed in  
15 Alternative A, B, or a combination of both.
- 16 • Approve the proposed training activities and infrastructure actions, contingent upon IDARNG  
17 incorporation of BLM-specified modifications.
- 18 • Deny the proposed construction, infrastructure, and operations on the BLM-managed lands  
19 within the proposed project area.

20 If the request is approved, BLM will include any terms, conditions, and stipulations it determines  
21 to be in the public interest, and may include modifying the proposed use or changing the location  
22 of proposed infrastructure (43 CFR § 2805.10[a][1]). In the decision process, BLM must consider  
23 how BLM's resource management goals, objectives, opportunities, and/or conflicts relate to this  
24 federal use of public lands.

25 Per 43 CFR § 2804.26, BLM may deny a ROW request if

- 26 1. The proposed use is inconsistent with the purpose for which BLM manages the public lands  
27 described in [an] application
- 28 2. The proposed use would not be in the public interest
- 29 3. [The Applicant is] not qualified to hold a grant
- 30 4. Issuing the grant would be inconsistent with the FLPMA, other laws, or these or other  
31 regulations
- 32 5. [The Applicant does] not have or cannot demonstrate the technical or financial capability to  
33 construct the project or operate facilities within the [ROW]

1 The IDARNG is an applicant in good standing and is qualified to hold a ROW as per 43 CFR 2803.  
2 Bureau of Land Management has issued IDARNG numerous ROWs with which IDARNG has  
3 complied and, when necessary, has resolved any compliance issues in a timely and responsive  
4 manner. The presence of the IDARNG and associated conservation programs in the OCTC has  
5 resulted in the largest contiguous stand of native habitat in the NCA, including the largest and most  
6 stable population of slickspot peppergrass, a species listed as threatened under the ESA within the  
7 Management Area.

## 8 **1.4 PUBLIC AND AGENCY INVOLVEMENT**

9 Public involvement and intergovernmental coordination and consultation are essential to the  
10 NEPA process and development of an EA. In addition to the public involvement associated with  
11 the Proposed Action (**Section 1.4.1**), public scoping was also conducted for a similar proposed  
12 action (Simco East EA) in April 2018. The proposed action was to conduct the same type and level  
13 of use of military training activities outlined in this document, but limited the training operations  
14 to approximately 15,000 acres of IDL lands, with a BLM ROW to access the training site.  
15 However, on June 11, 2019 the IDARNG suspended the EA process and withdrew its ROW  
16 application (#IDI-38265) to BLM based on guidance from the NGB and internal planning. Because  
17 the 2018 proposed action and location are similar in scope to this Proposed Action, all comments  
18 received were incorporated into this public scoping process and summarized in Appendix D.

### 19 **1.4.1 Scoping Process**

20 Public scoping for the Proposed Action was initiated in March of 2021. A project summary letter  
21 and invitation to a virtual open house were sent to the interested party list on March 2, 2021. The  
22 interested party list included 132 individual points of contact with federal and state agencies,  
23 Tribes, government officials, nongovernmental organizations, and private citizens, including all  
24 residents within 1 mile of the proposed project area. In addition, a nationwide public notice, via  
25 social media, was issued by the BLM on March 5, 2021, and the IDARNG on March 8, 2021.  
26 Information about the project, scoping process, and timeline were included in all correspondence,  
27 including links to the IDARNG and BLM websites. Refer to Appendix D for additional  
28 information.

29 The IDARNG, in coordination with the BLM, also conducted two virtual public scoping meetings  
30 on March 17, 2021, from 2:00 PM to 3:00 PM and from 6:00 PM to 7:00 PM (Appendix D). Public  
31 comments received were generally in line with those received during the public scoping period  
32 (March 9 through May 1, 2018) for the Simco East EA (see **Section 1.4** above). Concerns were  
33 raised about the project's effect on the following resource areas: wildlife, noise, toxins, fugitive  
34 dust, nonnative weeds, wildland fire, airspace, military training, economics, public lands, BLM  
35 ROW, infrastructure, transportation, special-status species, water quality, air quality, climate  
36 change, visuals, soil erosion, and public access. Additional proposed alternatives were also  
37 identified in the comments and incorporated into **Sections 2.3, 2.4, 2.5, and 2.6.**

### 38 **1.4.2 Interagency and Intergovernmental Coordination and Consultation**

39 An important element of the NEPA-compliant documentation process is a thorough interagency  
40 outreach and coordination effort. In accordance with the Intergovernmental Cooperation Act of

1 1968 (42 U.S.C. § 4231[a]) and as outlined in Executive Order 12372 of July 14, 1982,  
2 “Intergovernmental Review of Federal Programs,” as amended in Executive Order 12416, requests  
3 have been made for agency input addressing sensitive resources in the proposed project area, as  
4 well as information on any known planned actions in the region. In compliance with NEPA  
5 requirements for public scoping, federal, state, local agencies, and Tribes with jurisdiction that  
6 could be affected will be notified of the action and offered an opportunity to provide comments  
7 and raise points for consideration to inform development of the EA. Appendix D provides all  
8 stakeholder and public involvement materials.

9 The following federal, state, and local agencies have been coordinated with: U.S. Fish and Wildlife  
10 Service (USFWS) (April 2018/May 2021), U.S. Army Corps of Engineers (USACE)  
11 (July 2018/February 2021), State Historic Preservation Office (SHPO) (June 2018/March 2021),  
12 IDL (2016 to present), County Commissioners of Ada (2018), Elmore and Owyhee Counties  
13 (March 2018/February 2021), and Mountain Home Highway District (April 2017) (Appendix E).

14 Consultation with interested Tribes is also a key component of the NEPA process. Section 106 of  
15 the National Historic Preservation Act of 1966 mandates consultation with stakeholders, including  
16 federally recognized Native American Tribes, in identifying historic properties. The IDARNG sent  
17 out a project summary letter for the 2018 proposed action (Simco East EA) to the following Tribes  
18 on April 18, 2017: Shoshone-Bannock Tribes (Idaho), Fort McDermitt Paiute and Shoshone  
19 Tribes (Nevada), Confederated Tribes of Warm Springs Reservation of Oregon, Burns Paiute  
20 Tribe (Oregon), and Shoshone-Paiute Tribes of the Duck Valley Indian Reservation (Nevada)  
21 (Appendix D). A separate letter of interest was sent to the previously mentioned Tribes and the  
22 Northern Band of the Shoshone Nation (Utah) on March 6, 2018 (Appendix D). No comments  
23 were received from either letter. In reinitiating the NEPA process, request letters for Tribal  
24 consultation were sent on March 3, 2021 to all six Tribes previously listed.

25 Bureau of Land Management Tribal consultation was also carried out via the *Wings and Roots*  
26 Program with the Shoshone-Paiute Tribes, which was the recognized government-to-government  
27 procedure in the Twin Falls and Boise BLM Districts through 2019. Consultation is an ongoing  
28 process that was started in August of 2015, with the latest meeting held in March 2022. The BLM  
29 also initiated consultation with the Shoshone-Bannock Tribe on June 14, 2018. No comments were  
30 received from the *Wings and Roots* Program or the Shoshone-Bannock on the Proposed Action.  
31 The BLM conducted a face-to-face meeting with the Shoshone-Paiute Tribes on May 5, 2021, and  
32 sent letters with the same information to the Shoshone-Bannock Tribes and the Burns Paiute Tribe  
33 the same week.

34 In June 2018, the BLM and SHPO concurred that there would be no anticipated effects to historic  
35 properties, providing a No Adverse Effect determination (Appendix E). In July 2020 and  
36 April 2021, the BLM and the SHPO re-evaluated the application that included the additional BOR  
37 land managed by BLM. They concurred with the findings that there would be no anticipated effects  
38 to historic properties within the additional acreage, providing a No Adverse Effect determination  
39 (Appendix E).

1 The IDARNG and BLM completed consultation with USFWS in regard to slickspot peppergrass  
2 and Proposed Critical Habitat (PCH). The Level 1 team developed a biological assessment with a  
3 finding of “May affect, but is not likely to adversely affect.”

#### 4 **1.4.3 Issue Identification Process**

5 Council on Environmental Quality (CEQ) regulations state that the scoping process should be used  
6 “not only to identify significant environmental issues deserving of study, but also to deemphasize  
7 insignificant issues narrowing the scope of the EA process accordingly” (40 CFR § 1500.4[i]). As  
8 such, the BLM and IDARNG’s Environmental Management Office staffed an internal  
9 interdisciplinary team (IDT) to review the resources and uses of the Proposed Action based on  
10 existing specialist reports, site experience, and professional judgment. Each IDT member is a subject  
11 matter expert in his or her field and is familiar with the resources and uses within the NCA as well  
12 as the requirements outlined in the BLM’s 2008 RMP and IDARNG’s INRMP and statewide  
13 ICRMP. As part of the NEPA process, the IDT members reviewed the presence and extent of effects  
14 associated with the resource-specific region of influence (ROI) for each resource or use. Specifically,  
15 the IDT developed initial recommendations regarding whether an environmental component was  
16 present, and if there was potential for a substantial or measurable change to the environmental  
17 components. If these were identified, the IDT then had to determine if there was any material bearing  
18 on the decision process (that is, defined thresholds for analysis), and to what spatial extent the  
19 analysis would be relevant to the Proposed Action, which is the basis for the defined ROI.

20 Consideration of analysis was based on the extent of the geographic distribution, the intensity and  
21 duration of the effects, and/or the level of public interest or resource conflict. Non-assessed resources  
22 or resource uses are those that are outside the scope of the purpose and need; already decided by  
23 law, regulation, or other higher-level decision; unrelated to the decision to be made; conjectural and  
24 not supported by scientific or factual evidence; or so inconsequential as to be immeasurable. Council  
25 on Environmental Quality regulations at 40 CFR 1501.9(f)(1) explain this delineation as follows:  
26 “identify and eliminate from detailed study the issues which are not significant, or which have been  
27 covered by prior environmental review.” Identification of issues and resources analyzed are  
28 presented below and evaluated in **Section 3.0**.

#### 29 **1.4.4 Resources and Uses to Be Analyzed**

30 Using information gathered during the internal scoping process described in **Section 1.4.1**, the IDT  
31 identified the environmental components and issues that could have any measurable material bearing  
32 on the decision process. Each issue is in the form of a question to be answered by the resource-  
33 specific analysis and is identified for each resource or use in **Section 3.0**. After considering  
34 comments received from the IDT, public, and various agencies, resource specialists identified the  
35 following resources or uses that the Proposed Action would measurably affect:

- 36 • Land use (livestock grazing, access/recreation, and military training)
- 37 • Air quality and climate change (greenhouse gas-climate change [GHG-CC], fugitive dust)
- 38 • Noise

- 1 • Soils
- 2 • Biological resources: vegetation-invasive/nonnative species, wildland fire, and special-status
- 3 species plants; terrestrial wildlife and special-status species wildlife
- 4 • Cultural resources
- 5 • Socioeconomic and public health and human safety
- 6 • Transportation and infrastructure
- 7 • Hazardous and toxic materials and wastes (HTMW)

#### 8 **1.4.5 Resources Considered but Eliminated from Further Analysis**

9 After considering comments received from the public, various agencies, and internal scoping  
10 meetings, resources specialists identified the following resource areas that would not be  
11 measurably affected by the Proposed Action Alternative or alternatives. These resource areas will  
12 not be further analyzed in this EA:

13 **Paleontological Resources:** The proposed project area is not within an area identified for sensitive  
14 paleontological resources (Plew et al. 2013); therefore, this resource is not discussed.

15 **Environmental Justice:** Environmental justice (EJ) identifies and addresses any  
16 disproportionately high and adverse human health or environmental effects of a public agency's  
17 proposed activities on minority and low-income populations. According to a regional EJ analysis  
18 the BLM conducted, low-income and minority populations are present in the census block groups  
19 surrounding the proposed project area (EPA 2020; Headwaters Economics 2020).

20 According to the EJSCREEN: Environmental Justice Screening and Mapping Tool (EPA 2020),  
21 the primary areas of low-income and minority populations exist east and northeast of the proposed  
22 project area. Both areas are buffered from potential effects to human health and the environment.  
23 In addition, potential effects of the proposed training are not anticipated to extend past boundaries  
24 of the proposed project area. These communities are intermixed with census tracts that do not  
25 have low-income or minority populations (EPA 2020) and would not incur any potential impacts  
26 disproportionately to other communities.

27 No individuals or populations that principally rely on the proposed project area for fish and/or  
28 wildlife for subsistence have been identified. In addition, under all alternatives, access to the site  
29 for those individuals would not be restricted at any time.

30 Based on the location and nature of the Proposed Action relative to the distribution of communities  
31 previously discussed (EPA 2020; Headwaters Economics 2020), the Proposed Action would not  
32 affect low-income or minority communities disproportionately to other communities.

1 **Water Resources:** Surface water features in the proposed project area include three main features:  
2 two intermittent stream channels (Squaw Creek and Canyon Creek) and historic Fraser Reservoir.  
3 The Fraser Reservoir dam no longer captures seasonal runoff or supports historical wetland areas.  
4 The reservoir has since converted back to an upland habitat with only the ephemeral channel of  
5 Canyon Creek remaining.

6 United States Army Corps of Engineers determined that the proposed project area contains waters  
7 of the United States and are jurisdictional under Section 404 of the Clean Water Act (Appendix  
8 E). However, the proposed project does not include any permanent or modified stream channel  
9 crossings or any in-channel construction or training activities, and the Proposed Action would not  
10 involve any activity the USACE would regulate (Appendix E). In addition, environmental  
11 conditions and diversion of surface waters upstream of the proposed project area have changed the  
12 hydrology over the past decades, changing the channels to a more ephemeral flow regime. Several  
13 small playas hold seasonal water in the proposed project area and would be off limits to training  
14 activities.

15 The proposed project area falls within the Mountain Home Groundwater Management Area and  
16 partially within the Cinder Cone Butte Critical Groundwater Area. Both areas limit new  
17 groundwater appropriations due to declining groundwater levels. The proposed project does not  
18 include new surface or groundwater rights to support training. All water required for training  
19 operations and fire suppression would be covered with current water allocations for training in the  
20 OCTC. The Proposed Action and alternatives do not anticipate any impact on groundwater  
21 availability or quality.

22 After discussion with the IDT, it was determined that there would not be any appreciable impacts  
23 to water resources due to the nature of the Proposed Action and alternatives.

24 **National Conservation Area:** The majority of the proposed project area (74 percent) is located  
25 within the boundaries of the NCA (Map 1). Management responsibility for the NCA resides with  
26 the BLM, Boise District Office, and FRFO. However, under PL 103-64, use of the OCTC by the  
27 IDARNG as a military training center is authorized under an MOU between the BLM and the IMD  
28 (Appendix B). Continued authorization of military training within the OCTC is managed under  
29 the BLM's 2008 RMP, with the associated effects assessed in the EIS (BLM 2008b). It was  
30 identified by the IDT that the resources and uses within and associated with the NCA were being  
31 addressed individually in the document. As such, a separate assessment of the NCA would be  
32 redundant and not needed.

33 **Aesthetics and Visual Resources:** The BLM has a basic stewardship responsibility to identify  
34 and protect visual values on public lands. To fulfill this responsibility, the BLM developed the  
35 Visual Resource Management (VRM) system because public lands have a variety of visual values.  
36 These different values warrant different levels of management. Because it is neither desirable nor  
37 practical to provide the same level of management for all visual resources, it is necessary to  
38 systematically identify and evaluate these values to determine the appropriate level of  
39 management. Visual values are identified through the VRM inventory and are considered with



1 other resource values in the planning process. Visual management objectives are established in  
2 RMPs in conformance with the land use allocations made in the plan.

3 The proposed project area includes VRM Class III and Class IV areas (BLM 1996). The objective  
4 of Class III is to partially retain the existing character of the landscape. The level of change to the  
5 characteristic landscape should be moderate. The objective of Class IV is to provide for  
6 management activities that may involve major modification of the existing character of the  
7 landscape. The level of change to the characteristic landscape can be high. The BLM VRM classes  
8 allow for moderate to high change to visual characteristics. The intermittent use of the proposed  
9 project area would result in moderate, short-term visual characteristic changes because training  
10 activities would be temporary, occurring for a limited number of days, and short term in duration,  
11 lasting only for the length of the training exercise. Additionally, the infrastructure improvements  
12 would be located below ground or there would be a reduction in the amount of fences within the  
13 proposed project area.

14 **Airspace:** The Proposed Action Alternative would have no impact on the local airspace. Air traffic  
15 associated with use of the Mountain Home Municipal Airport and Mountain Home Air Force Base  
16 (AFB) would continue as it has in the past.

17 **BLM ROW Decision-making Process:** The IDARNG is requesting a ROW from the BLM. The  
18 IDARNG has no influence on the BLM ROW process. This EA documents the potential effects  
19 resulting from issuance of a BLM ROW grant to use public lands in the proposed project area.  
20 This document does not document the BLM ROW decision-making process. Contact the BLM for  
21 documentation of that process.

22 **Utilities:** Idaho Power Company provides electrical services via an aboveground power line.  
23 Based on the proposed actions identified (design features) and discussion with Idaho Power  
24 Company staff, there would be no effect to this utility. This is the only available public utility near  
25 the proposed project area.

26 **Communications:** A radio-equipped building at the top of Cinder Cone Butte provides direct  
27 communication with IDARNG Headquarters at Gowen Field and Mountain Home AFB (Global  
28 Security.org 2005). This is the only communications service to the proposed project area.

29 **Solid Waste:** Any solid waste materials transported to the area or generated during training  
30 exercises, or any materials that might become solid waste, are collected by the units at the end of  
31 the training event and hauled to a landfill facility (Stout and Associates 2004). All solid waste  
32 disposal is done at the Mobilization and Training Equipment Site (MATES) facility in metal  
33 containers with 6- to 30-cubic-yard capacity for handling solid wastes.

1 **1.5 RELATED NATIONAL ENVIRONMENTAL POLICY ACT,**  
2 **ENVIRONMENTAL, AND OTHER DOCUMENTS AND PROCESSES**

3 The following land use plans, policies, and analyses were considered in the analysis for this EA:

- 4 • 2020 MOU Between the BLM and the IMD (Appendix B of this EA)
- 5 • Idaho Army National Guard’s 2013 INRMP
- 6 • Bureau of Land Management’s Morley Nelson Snake River Birds of NCA RMP (2008b)
- 7 • Bureau of Land Management’s Kuna Management Framework Plan EIS (1985)
- 8 • 2003, 2006, and 2014 Candidate Conservation Agreement for Slickspot Peppergrass
- 9 • Idaho Army National Guard’s 2020 ICRMP (Plew et al. 2020)
- 10 • Idaho Army National Guard’s 2006 Statewide Operational Noise Management Plan (SONMP)
- 11 (ACHPPM 2006) and 2018 Noise Assessment (APHC 2018)
- 12 • Idaho Army National Guard’s 2020 Real Property Master Plan and EA (ARNG and BLM
- 13 2020)
- 14 • Idaho Army National Guard’s 2016 Range Complex Master Plan (BLM 2018)
- 15 • Idaho Constitution Article IX Section 4
- 16 • Idaho Administrative Code Section 20, TITLE 03, Section 8 – Easements on State-Owned
- 17 Lands
- 18 • State of Idaho Statute Title 58 - Public Lands

19 **1.6 LAND USE PLAN CONFORMANCE**

20 The Proposed Action Alternative is in conformance with the following land use plans, policies,  
21 and regional assessments (Table 1-1).

**Table 1-1. Relevant Land Use Plans and Sections**

Land Use Plan/Document	Sections/Pages	Date Approved
Snake River Birds of Prey National Conservation Area - Resource Management Plan and Record of Decision	Cultural Resources (pg. 2-2) Fish and Wildlife (pg. 2-4) Special-Status Species (pg. 2-7) Upland Vegetation (pg. 2-10) IDARNG (pg. 2-14) Lands and Realty (pg. 2-16)	2008
Kuna Management Framework Plan - EIS	Lands and Realty	1983

2 Per the 2008 Record of Decision and associated NCA RMP/EIS, the BLM authorized “military  
3 training in a manner that reduces impacts to existing shrub habitat, supports BLM habitat  
4 restoration projects, and provides modified and/or new areas to enhance military training  
5 opportunities” (BLM 2008b, pg. 3-44). The BLM also identified and assessed the authorization of  
6 an expanded maneuver training area outside the current boundaries of the OCTC. The 22,300-acre  
7 expansion area identified under Alternative B (pg. 3-42) includes much of the area identified under  
8 this Proposed Action (BLM 2008b). The proposed expansion area was selected in 2008 because  
9 “[t]his area has been impacted by repeated wildland fires, and has limited capability for future  
10 restoration projects. This additional maneuver space would enable the IDARNG to rotate its  
11 training activities to minimize soils disturbance and better facilitate restoration efforts in other  
12 areas” (BLM 2008b, pg. 3-42). All of the resources and uses identified within this Proposed  
13 Action, including soil types, vegetation communities, wildlife species, and public access, were  
14 also addressed and analyzed in the 2008 NCA RMP/EIS (BLM 2008b). While Alternative B was  
15 not selected as the preferred alternative in the NCA RMP/EIS, the potential effects of the proposed  
16 expansion area on the human environment and resources and uses of the NCA was fully analyzed,  
17 and met the BLM’s long-term goals for the NCA, that is, desired future conditions.

18 All BLM-approved military uses, including the proposed training activities, associated with the  
19 Proposed Action and proposed project area, would be the same as those currently conducted within  
20 the OCTC and analyzed in the 2008 NCA RMP/EIS and the IDARNG’s 2020 Real Property  
21 Master Plan (BLM 2008b, NGB/BLM 2020). These training activities and associated level of use  
22 the BLM has authorized have been identified to be in compliance with PL 103-64. The proposed  
23 project area also falls under the jurisdiction of the following land use plans:

- 24 • Elmore County 2014 Comprehensive Plan (2015)
- 25 • Elmore County, Idaho: Multi-Hazard Mitigation Plan (Revised) (2012)
- 26 • Elmore County, Idaho Wildland-Urban Interface Wildfire Mitigation Plan 2005-06 Update  
27 (2006)

- 1 • 2003, 2006, and 2014 Candidate Conservation Agreement for Slickspot Peppergrass (BLM  
2 and USFWS 2014)
- 3 • “National Fire Plan” (Glickman and Babbitt 2000)
- 4 • Idaho Implementation Strategy for the National Fire Plan (State of Idaho 2006).

## 5 **1.7 REGULATORY FRAMEWORK**

6 The following is a list of the major laws and executive orders that apply to the Proposed Action  
7 Alternative. For a full summary of each law or executive order, refer to Appendix F.

- 8 • National Environmental Policy Act 32 CFR Part 651 (*Environmental Analysis of Army*  
9 *Actions*)
- 10 • Army Regulation (AR) 200-1 (Environmental Quality, Environmental Protection and  
11 Mitigation)
- 12 • 2020 Training Authorization MOU
- 13 • Endangered Species Act
- 14 • Clean Water Act, Section 313
- 15 • National Historic Preservation Act
- 16 • Executive Order 13007, Indian Sacred Sites
- 17 • Executive Order 12898, Environmental Justice
- 18 • Executive Order 13186, Migratory Birds
- 19 • Native American Tribal Consultation in accordance with EO 13175 (*Consultation and*  
20 *Coordination with Indian Tribal Governments*) and DoD Instruction 4710.02 (*DoD*  
21 *Instructions with Federally Recognized Tribes*)
- 22 • FLPMA, as amended
- 23 • 43 CFR Part 2800 (Rights-of-Way under the FLPMA)
- 24 • Cultural resource laws and executive orders
- 25 • 1993 Public Law 103-64
- 26 • 2009 Omnibus Public Land Management Act (16 U.S.C. 7202)
- 27 • *BLM Manual 6100 – National Landscape Conservation System Management* (BLM 2012)

- 1 • *BLM Manual 6220 – National Monuments, National Conservation Areas, and Similar*
- 2 *Designations* (Section 1.6 - Compatibility of Uses) (BLM 2017)
  
- 3 • U.S. Department of the Interior (USDO I) *Department Manual 600 DM-6: Landscape-Scale*
- 4 *Mitigation Policy* (2015)
  
- 5

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1     **2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

2     **2.1 INTRODUCTION**

3     This section of the EA describes the Proposed Action (Alternatives A and B) and the No Action  
4     Alternative. IDARNG’s preferred alternative is Alternative A. The two Proposed Alternatives both  
5     propose construction activities, military operations, and maintenance activities on lands the  
6     BLM/BOR and IDL manage in Elmore County, Idaho. If approved, construction activities  
7     (infrastructure improvements) associated with the Proposed Action could begin during the 2022  
8     or 2023 fiscal year. Differences in the Proposed Alternatives are based on project design features,  
9     including the location of engineered sites on BLM-managed lands, public access restrictions  
10    during maneuver training activities, site access changes, and the overall amount of fencing. The  
11    proposed location and configuration of the training area were determined based on the IDARNG’s  
12    and BLM’s purpose and need and IDARNG’s screening criteria and site assessment process  
13    (Sections 1.2 and 2.6.1).

14    **Section 2.6** describes the process used to determine which alternative(s) to retain for analysis in  
15    this EA and which alternatives to eliminate from further consideration. Alternatives that were  
16    considered but not evaluated further in this EA include purchase of private lands adjacent to the  
17    OCTC, limiting training activities to a single ownership (private, BLM/BOR, or IDL), and  
18    increased efficiency and use of the OCTC with augmented training using simulators in place of  
19    on-the-ground activities. The No Action Alternative, where lands outside and adjacent to the  
20    OCTC would not be used to support military training activities, was evaluated in the EA as a  
21    baseline for comparison with the Proposed Alternatives.

22    **2.2 NO ACTION ALTERNATIVE**

23    Under the No Action Alternative, the IDARNG would not enter into a long-term lease with the  
24    IDL for the Simco Road parcels and would not request a ROW from the BLM or BOR. The amount  
25    of maneuver training lands within the OCTC would not change. Land use and management of the  
26    proposed project area would not change, and current uses would continue on IDL-, BLM-, and  
27    BOR-managed lands (Map 5).

28    Under the No Action Alternative, the existing Simco Road tank crossing would be left as is. The  
29    road crossing was constructed in 2017 based on authorizations from the Elmore County Highway  
30    District. The road crossing meets or exceeds all Elmore County Highway District standards and  
31    has been a fully function transportation corridor since 2017. A BLM ROW was required to build  
32    this crossing. However, the IDARNG was not aware of this requirement and did not request a  
33    ROW or receive one. The BLM issued a trespass to the IDARNG in 2017. To date, the IDARNG  
34    has completed all compensatory mitigation requirements outlined in the 2017 trespass, including  
35    fines and restoration of all disturbed sites. Because the site is currently stable and functional as a  
36    transportation corridor, there is no reason to decommission the crossing. If the No Action  
37    Alternative is selected, the BLM would need to grant a site-specific ROW.

38    Existing resources within the NCA would continue to be managed in a manner commensurate with  
39    PL 103-64, and maneuver training activities within OCTC would be managed under the terms

1 outlined in the 2020 MOU (Appendix B). The IDARNG and other out-of-state units would still be  
2 required to meet DoD mission and training requirements.

### 3 **2.3 PROPOSED ACTIONS COMMON TO ALTERNATIVES A AND B**

4 The IDARNG requests from BLM an ROW on 12,776 acres of BLM-managed, 555 acres of BOR-  
5 land managed by BLM, and seeks from IDL a long-term lease on 15,097 acres of IDL-managed  
6 lands (28,430 total acres) to conduct military training activities (operations), construction  
7 activities, and maintenance and monitoring activities. The majority of the site (20,919 acres or  
8 74 percent) is found within the boundaries of the NCA, with the residual 7,510 acres (26 percent)  
9 outside the NCA within the BLM’s FRFO and on IDL-managed lands (Map 2). The lands outside  
10 the NCA consist of 4,175 acres of IDL-managed land and 3,335 acres of BLM-managed land.  
11 There are no BOR-managed lands outside the NCA. Training activities would be managed under  
12 the BLM’s 2008 NCA RMP, the BLM’s 1985 Kuna Management Framework Plan, the IDL’s  
13 lease agreement, IDARNG’s INRMP and statewide ICRMP, and other regulatory and military  
14 requirements.

#### 15 **2.3.1 Training Operations (Maneuver, Engineering Tasks, and Assembly Areas)**

16 Training operations within the proposed project area would not begin prior to May 1 and would  
17 end no later than October 31, unless the BLM or IDL authorizes, and could be conducted as  
18 daytime (85 percent) or nighttime operations (15 percent). For the purposes of this document,  
19 military training operations and activities within the proposed project area are limited to maneuver  
20 activities, engineering tasks, administrative assembly areas, and force-on-force scenarios using  
21 blank fire and multiple integrated laser engagement system (MILES) or similar nonlive fire  
22 systems. Military activities within the proposed project area would not include live fire or  
23 high-explosive training operations of any kind. Appendix A outlines an expanded description of  
24 the proposed required training activities and associated vehicles. **Section 2.3.2** describes the  
25 proposed level of use and resource support, **Section 2.3.3** lists site-specific design features,  
26 **Section 2.3.4** provides designated off-limits areas, **Section 2.3.5** discusses access and egress, and  
27 **Section 2.3.6** covers infrastructure.

28 **Maneuver Exercises:** Maneuver exercises could be conducted on and off road depending on the  
29 training scenario. For the purposes of this document, the term “maneuver activities” is associated  
30 with the movement of personnel and vehicles across the landscape according to the requirements  
31 of a training exercise. This may include foot traffic and the use of all vehicle types (tracked and  
32 wheeled) both on and off road in designated areas. Appendix A outlines an expanded description  
33 of the maximum level of maneuver training allowed within the proposed project area annually.

34 **Engineering Tasks:** Dig sites proposed for the proposed project area would be limited to battle  
35 positions and antitank ditches. These features are used by opposition forces (Opfor) during  
36 force-on-force scenarios to obscure vehicles and create obstacles for training units. Units also use  
37 these features to learn how to bypass obstacles, breach enemy positions, and evade or hide from  
38 enemy forces. The total area affected by engineering tasks in a single training year would not  
39 exceed 15 acres (Maps 6 and 7), which is roughly 0.0005 percent of the site, with a maximum of  
40 5 acres (0.00017 percent of the site) on BLM-managed lands, and a maximum of 10 acres



1 (0.00033 percent) on IDL-managed lands. Once training activities are completed, the sites would  
2 be regraded to existing topography and seeded according to the approved seed mix and identified  
3 standard operating procedures (SOPs) outlined in Appendix G. All rehabilitated sites would be  
4 monitored and remain off limits to training until such time that the site is stabilized (that is, returned  
5 to pre-disturbance conditions). For the purposes of this document, the total area associated with  
6 engineering activities would include the dig site and spoils area, plus a rehabilitation buffer. The  
7 rehabilitation buffer is estimated at 50 percent of the area affected. In other words, the total area  
8 affected for a single battle position would be 0.024 acres ( $0.016 + .008 = 0.024$ ). The following  
9 three types of tasks are associated with engineering training operations.

10 • **Antitank Ditch:** A ditch would be dug a minimum of 4.5 feet deep and 10 feet wide using a  
11 tracked dozer. The berm (spoils) is placed between the oppositional force and the ditch  
12 (10 feet). The length of ditch would be determined by the mission's requirement but would be  
13 limited to less than 300 feet. The maximum soil disturbance area would be 6,000 square feet  
14 or 0.15 acres. Based on historical training operations in the OCTC (Appendix A), anti-tank  
15 ditches have not exceeded 1.0 acre of total disturbance in a single training year.

16 • **Battle Position:** Protective positions are necessary for military vehicles and their support  
17 equipment. Vehicles use the natural cover and concealment to hide positions and increase  
18 survivability. As time, assets, and situations permit, positions are prepared using engineer  
19 support with a tracked dozer. The bottom of the fighting position would be 30 feet long with a  
20 width of 17 feet. The depth would be 5 feet. The battle position would be ramped down to the  
21 bottom with spoils placed to the front of the position (10 feet). The maximum soil disturbance  
22 area would be 680 square feet or 0.016 acres. Based on the type of training operations in the  
23 OCTC (Appendix A), battle positions have not exceeded 1.0 acre of total disturbance in a  
24 single training year.

25 • **Site Rehabilitation:** All dig sites would be backfilled directly after the training exercise and  
26 rehabilitated using a site-specific and owner-approved seed mix (Appendix G). Hydro-seeding  
27 or soil tackifier may also be used to reduce erosion and increase seeding success. These sites  
28 would be marked, made off limits for military training activities, and monitored until they are  
29 rehabilitated, that is, made equal to or better than pre-disturbance conditions using above  
30 ground vegetation as the indicator. Once the site has been rehabilitated, it would be open to  
31 military training activities again. The IDARNG's ITAM program would be responsible for all  
32 post-training rehabilitation, monitoring, and coordination with BLM.

33 **Administrative Assembly Activities:** Units operating in the area would locate all administrative  
34 assembly activities on one of three defined sites (20 acres each) in order to conduct administrative  
35 and support activities, as well as multi-day training events (Maps 6 and 7). Two of the three sites  
36 are located on BLM-managed lands (40 acres), and one is located on IDL-managed lands  
37 (20 acres). These training activities would provide soldiers with on-the-ground, real-life tactical  
38 combat scenarios for training purposes.

### 2.3.2 Proposed Level of Use and Idaho Army National Guard Resources Management Requirements

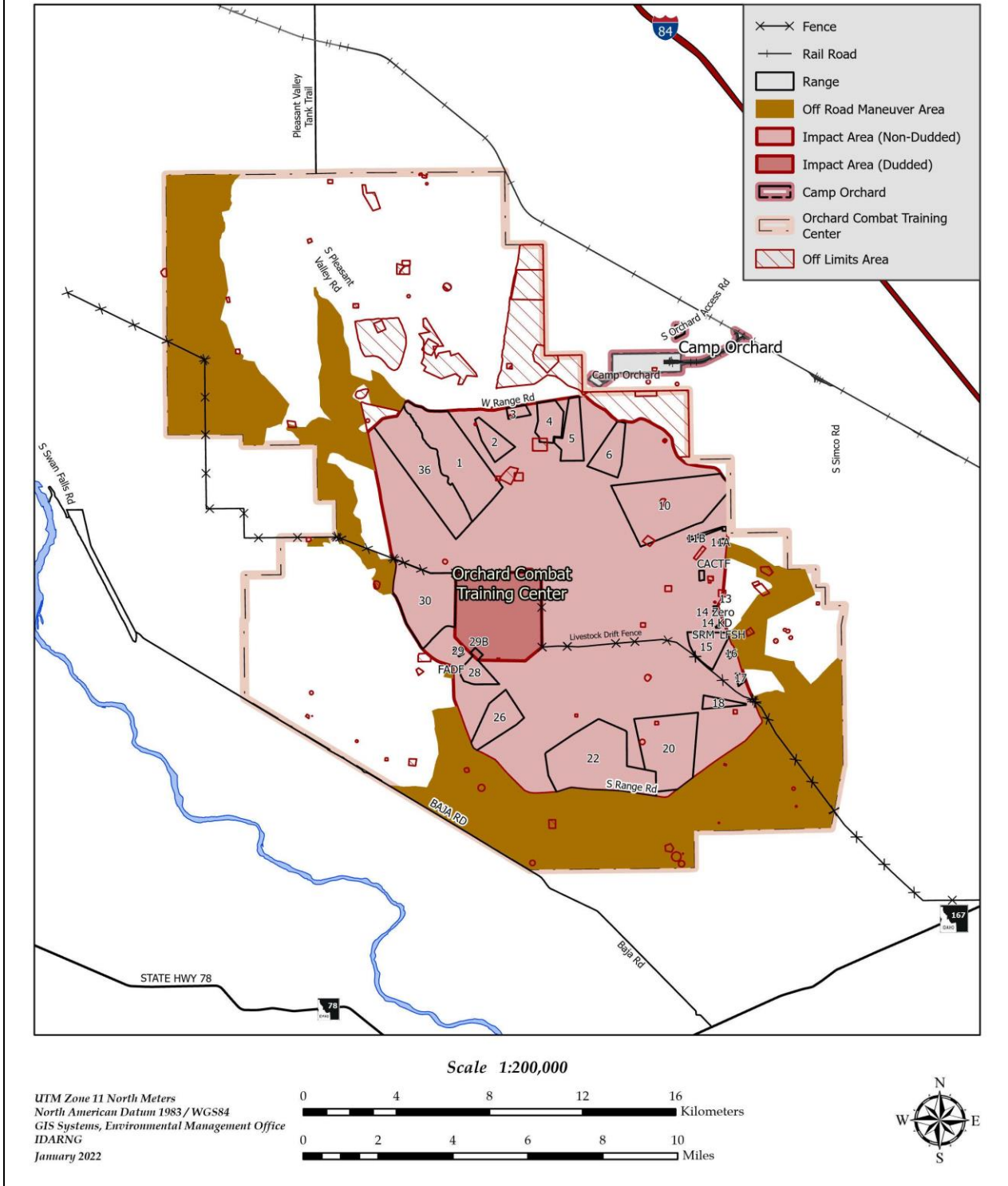
The overall annual level of use (number of soldiers, number and type of units, and seasonal use) the BLM has authorized for the OCTC is outlined in Appendix B (pgs. A-1 through A-19) and assessed in the NGB/BLM's 2020 Real Property Master Plan (RPMP) EA (ARNG and BLM 2020). This includes 10,500 soldiers (the equivalent of three BCTs at 85 percent troop participation) with associated equipment. Each brigade is made up of roughly 6 to 8 battalions depending on the unit configuration, with 4 companies in each battalion, or between 24 and 32 companies in each brigade. Based on three BCTs at 85 percent, the BLM has authorized annual training operations, including maneuver, aviation, and weapons training, within the OCTC for up to 80 companies.

However, BLM management guidelines implemented in the 2008 RMP reduced the amount of available and usable off-road maneuver training lands from 89,000 acres to 35,000 acres, which is a loss of 61 percent (May 4). In order to offset the loss of these maneuver training lands, the IDARNG proposes to use the proposed project area to expand the overall training footprint that existing and authorized training operations may utilize. This would allow for increased training efficiency (the same level of training in a reduced amount of time). This would also allow the IDARNG to conduct more sustainable training practices by dispersing military training activities over a greater area and resting and rotating sites affected, in other words, allowing vegetative regeneration and recovery in areas affected.

The proposed level of use within the proposed project area would be limited to a maximum of six mechanized or armor companies annually, with Opfor and support vehicles. Each company could have up to 15 tracked vehicles including tanks and personnel carriers, with up to 350 soldiers. Each oppositional force would include 4 wheeled vehicles (modified High Mobility Multipurpose Wheeled Vehicles) with 16 soldiers. Support vehicles would vary based on the unit and training type, but the maximum support unit would include three wheeled and two-tracked vehicles (for example, medical, vehicle retrieval, engineered dozer, and communications) with 10 soldiers. Based on a maximum of 6 units annually, there could be up to 90 tracked and 24 wheeled vehicles conducting off-road training exercises, with support vehicles primarily limited to the road or assembly areas. Support vehicles may go off-road if required for medical support, engineering activity, or vehicle breakdown, but these would be independent events on an as-needed basis.

The maximum number of company-level units that could use the proposed project area in any one year is roughly 7.5 to 10 percent of the total units currently authorized to train on the OCTC. The residual 90 to 92.5 percent of the authorized training forces would only use the OCTC for maneuver exercises. There would be no increase in the overall level of use as currently authorized by the BLM, rather the proposed project area would be used to redistribute the existing training activities within the OCTC over a larger area. This would allow for increased training efficiency and more sustainable training practices.

## Off Road Maneuver Corridor Orchard Combat Training Center



1

2 **Map 4. OCTC Off-Road Maneuver Corridors**

1 The type, timing, and management of military training activities conducted within the proposed  
2 project area would be the same as those currently authorized and conducted within the OCTC. In  
3 addition to the 2020 RPMP EA, the training activities the IDARNG and other DoD units conduct  
4 were assessed in the BLM's 2008 RMP/EIS, which included a proposed action for, and assessment  
5 of, the use of lands outside the existing OCTC boundary for military training activities. While this  
6 alternative was not selected, it met the purpose and need as well as the desired future conditions  
7 for the BLM, and the effects of the proposed action were fully assessed. The 2008 RMP/EIS also  
8 identified that continued military training activities within the NCA, including those within and  
9 outside the OCTC, were a compatible use under the NCA enabling legislation (Appendix B).

10 Like the OCTC, all military training activities conducted within the proposed project area would  
11 comply with all established resource management requirements outlined in IDARNG 350-12  
12 (2015), Department of the Army (Army) Pamphlet 385-63 (2014), and IDARNG Pamphlet 100-1  
13 (2010). The IDARNG would also actively support the proposed project area in coordination with  
14 BLM and IDL staff, and in accordance with AR 350-19, AR 200-1, and the IDARNG's INRMP,  
15 statewide ICRMP, and associated resource management documents. Site-specific SOPs and  
16 BMPs, as well as ROW enhancement requirements identified in Appendix B and Appendix G,  
17 would also be implemented.

18 Based on these management documents, the IDARNG would be required to rehabilitate any  
19 military-related training impacts resulting in exposed soil annually using site-specific and  
20 owner-approved seed mixes (Appendix G). Disturbed areas in proximity (0.25 mile) to any  
21 special-status plant habitat would be reseeded with a BLM- and IDL-approved native plant seed  
22 mix. Areas of disturbance outside these buffer zones may be vegetated with a mix of native and  
23 desirable nonnative plant species approved by the land manager. The IDARNG would also provide  
24 supplemental resources (specialists, funding, seasonal staff, equipment, and infrastructure) for  
25 monitoring, protecting, and enhancing natural and cultural resources, active restoration of habitat,  
26 control of invasive/noxious weeds, and wildland fire suppression and rehabilitation as outlined in  
27 the IDARNG's INRMP and statewide ICRMP. The same programs (Conservation, Compliance,  
28 ITAM, and Wildland Fire) that have successfully managed the natural and cultural resources of  
29 the OCTC for 35 years would be implemented within the proposed project area.

30 **2.3.3 Site-Specific Design Features**

31 The IDARNG coordinated with the BLM, IDL, the existing permittee (Simplot LLC), Elmore  
32 County Highway District, and Idaho Power Company to develop site-specific design features to  
33 balance the proposed training activities with the existing resources, resource uses, infrastructure,  
34 and management guidelines. These design features are separated into two categories: (1) those  
35 consistent across all Proposed Alternatives, not including the No Action Alternative, and (2) those  
36 specific to an individual alternative (**Sections 2.4 and 2.5**). Maps 6 and 7 and Table 2-1 provide a  
37 summary of all design features.

1 Site-specific design features that would be consistent across both alternatives, not including the  
2 No Action Alternative, would include the following:

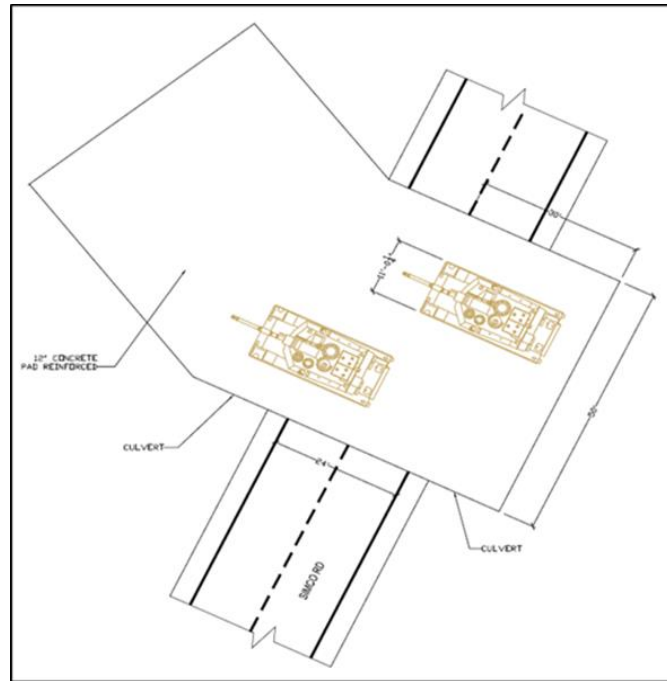
- 3 • Designation of 2,040 acres of residual shrub habitat as off limits (no training activities  
4 permitted) to protect the isolated, residual shrub populations and provide designated areas for  
5 active habitat enhancement (**Section 2.3.4**)
- 6 • Construction and maintenance of a single improved crossing site on Simco Road for military  
7 access and egress to the site, increased safety, and limited impacts to existing infrastructure  
8 (**Section 2.3.5**)
- 9 • Replacement of two tension gates with 30-foot metal access gates for sustainability and  
10 operations (livestock and training) (**Section 2.3.6**)
- 11 • Enhancement and maintenance of 137,808 linear feet (26.1 miles) of existing two-track road  
12 for accessibility and safety (livestock, emergency medical services [EMS], and fire assets),  
13 sustainability, operations (livestock and training), and to act as a fuel break for wildland fires  
14 and prescribed burns (**Section 2.3.6**)
- 15 • Removal of 74,500 linear feet (14.1 miles) of 4-strand barbed wire fence to increase training  
16 flexibility, reduce fuel accumulation points, and limit habitat fragmentation and injuries to  
17 wildlife (**Section 2.3.6**)
- 18 • Construction of up to 28 cattle guards (20 feet each) to increase training flexibility, reduce fuel  
19 accumulation points, and maintain pastures function for livestock operations (**Section 2.3.6**)
- 20 • Replacement of 93,760 linear feet (17.8 miles) of buried water lines (all on state lands) to  
21 reduce the potential for damage to existing infrastructure used for livestock operations  
22 (**Section 2.3.6**)

### 23 **2.3.4 Off-limits Areas**

24 The IDARNG has identified 10 off-limits areas covering 2,040 acres, or 7 percent of the proposed  
25 project area. Of the 10 sites, 5 are fully on BLM/BOR land managed by BLM, 3 are fully on  
26 IDL-managed lands, and 2 are on BLM-managed and IDL-managed lands (Map 6 and Map 7).  
27 Based on the nature and sensitivity of some of the off-limits areas identified, they have not been  
28 included in any of the maps, but have been included in the affected environment analysis  
29 (**Section 3.0**). Off-limits areas would be restricted from all military training activities to protect  
30 the natural and cultural resources within the site. These areas would be monitored annually, and  
31 the mapped areas (Maps 6 and 7) would be actively restored or enhanced in accordance with the  
32 IDARNG's INRMP and 2020 MOU. All off-limits sites would be visibly delineated with Seibert  
33 stakes, fenced in some cases (**Section 2.3.6**), and integrated in the IDARNG's Joint Battle  
34 Command Platform (JBCP). This is a location-based system that notifies a vehicle user when they  
35 are in proximity of a restricted area.

1 **2.3.5 Access and Egress**

2 Access to the proposed training  
3 site would occur at Simco Road  
4 and the Mountain Home access  
5 points (Map 6 and Map 7). The  
6 Simco Road access point would be  
7 the primary access and egress  
8 point for training vehicles (tracked  
9 and wheeled). Training units  
10 would access the site from the  
11 OCTC using a constructed cement  
12 road crossing on Simco Road  
13 (Figure 2-1). Refer to Appendix E  
14 for project design guidelines and  
15 information related to  
16 coordination with Mountain Home  
17 Highway District and temporary  
18 permit approval for construction of  
19 the road crossing.



20 **Figure 2-1. Proposed Simco Road Heavy Vehicle Crossing**

21 Soldiers as flaggers would pause  
22 traffic while heavy vehicles  
23 crossed Simco Road. Signs would  
24 be placed on the road reading, “Flaggers ahead, use caution.” When there is public use of Simco  
25 Road all military crossing will be stopped. As soon as the nonmilitary vehicle has passed, military  
26 traffic would be allowed to continue crossing. The intent is to keep all parties safe and impede  
27 Simco Road traffic as little as possible.

28 Secondary access and egress points would be located near the intersection of Old Oregon Trail  
29 Road and NW Bypass Road (Map 6 and Map 7). These access points would be limited to wheeled  
30 vehicles only. All defined access and egress points would be gated, but the use of locks would be  
31 at the discretion of, and in accordance with, the landowner or manager’s policies. Gate restrictions  
32 vary by alternative and are discussed in **Sections 3.2.1** and **3.2.2**.

32 **2.3.6 Infrastructure**

33 Changes to existing infrastructure, including roads, fences, irrigation system, and others, would be  
34 required for training purposes. The IDARNG understands that changes to existing infrastructure  
35 may require funding to reimburse the permittee for infrastructure that they developed. Similarly,  
36 any damages to property, including livestock, attributed to military training activities would be  
37 reimbursed per the final agreements. Table 2-1 outlines the proposed infrastructure changes  
38 common to all alternatives, and those specific to Alternatives A and B (Map 6 and Map 7).

39 Under both alternatives, the IDARNG would enhance (engineering and graveling) 26.1 miles of  
40 existing two-track road. The road would be used for training support vehicles, EMS, and wildland  
41 fire vehicles and equipment. All military support vehicles would be restricted to the road and

1 assembly areas (that is, there would be no off-road travel). Emergency medical services and  
2 wildland fire vehicles would be allowed to go off road as needed. The road would also act as a fuel  
3 and fire break and a physical and visual barrier for the existing 138-kilovolt (kV) overhead  
4 electrical transmission line running through the area. Reflective markers (visual, infrared, and  
5 thermal) would be placed on each electrical pole, with additional visible lights attached to every  
6 other pole during nighttime training activities. The majority of the enhanced road (22.7 miles)  
7 would fall within the proposed project area, and the remaining 3.4 miles of roads would fall on the  
8 OCTC (namely, Crow Road). The section within the OCTC is needed to connect a travel corridor  
9 from the OCTC facilities to the proposed project area (Crow Road). This road is currently mostly  
10 hardened and only slight widening and maintenance actions would be needed.

11 The IDARNG would also remove 74,500 linear feet (14.0 miles) of existing 4-strand barbed wire  
12 fence to allow for greater flexibility in maneuver training activities. However, to maintain livestock  
13 pastures, an additional 21,226 linear feet (4.0 miles) of fence would be constructed (net reduction  
14 of 53,274 linear feet [10.0 miles]). Two existing tension gates would be upgraded to 15-foot  
15 swinging gates (30 feet each) to allow vehicle access and egress from Simco and NW Bypass  
16 Roads.

17 The current permittee (Simplot LLC) using the livestock grazing allotments within the proposed  
18 project area has developed an extensive livestock watering system (15.3 miles of polyvinyl  
19 chloride [PVC] pipe) located fully on IDL-managed lands. To reduce impacts to the water line,  
20 the IDARNG would work with Simplot LLC to replace the water line with polyline buried under  
21 a minimum of 18 inches of crushed gravel. Natural material would be graded adjacent to the lines  
22 and pushed up as additional coverage. The slopes of the berm over the water line would not exceed  
23 a 2:1 slope. The area affected would be approximately 74 acres of previously disturbed lands.

24 All temporary ground-disturbing activities associated with construction activities would be  
25 revegetated using site-specific and owner-approved seed mixes. Disturbed areas in proximity  
26 (0.25 miles) to any special-status plant habitat would be reseeded with a BLM- and IDL- approved  
27 native plant seed mix. Areas of disturbance outside that buffer zone may be vegetated with a mix  
28 of native and desirable nonnative plant species approved by BLM and IDL. These sites would be  
29 recorded, marked, designated as off limits for military training activities, and monitored until the  
30 site conditions are equal to or better than pre-disturbance conditions, using above ground  
31 vegetation as the indicator. Once the site has been rehabilitated, it would be open to military  
32 training activities again.

1

**Table 2-1. Proposed Infrastructure Changes**

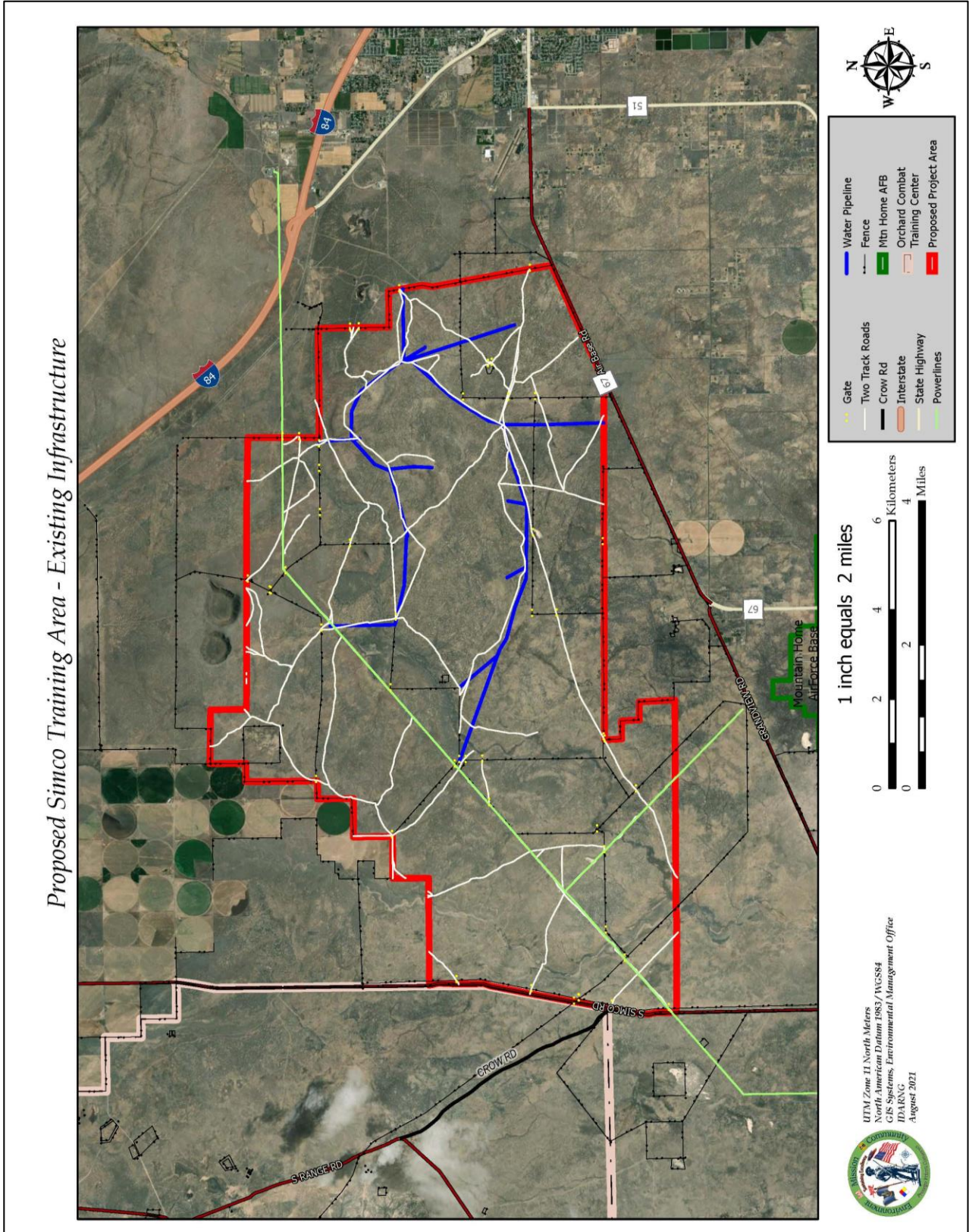
<b>Infrastructure</b>	<b>BLM</b>	<b>BOR</b>	<b>State</b>	<b>Total</b>
Graveled Simco Road and Crow Road (miles)	12.6	0.7	12.8	26.1
New Fence – Alternative A (linear feet)	5,690	0	15,536	21,226
New Fence – Alternative B (linear feet)	15,450	0	15,536	30,986
Fence Removed (linear feet)	34,068	0	40,423	74,491
Replacement of Water Lines (linear feet)	0	0	93,763	93,763
Cattle Guards (two/site)	21	0	9	28 <sup>a</sup>
Access Gates (30 foot)	1	0	1	2
Assembly Areas (acres)	40	0	20	60
Off-limits Areas (acres)	964	316	760	2,040
Off-limits Areas Fenced – Alternative A (acres)	0	0	0	0
Off-limits Areas Fenced – Alternative B (Acres)	43	0	0	43
Engineering/Digging (acres) <sup>b</sup>	5	0	10	15

<sup>a</sup> Of the 28 crossings, 2 fall on a fence between BLM-managed lands and IDL-managed lands, so the total number is 28 crossings.

<sup>b</sup> Engineering/digging exercises will occur annually.

2





1  
 2 **Map 5. Existing Conditions (Roads, Gates, Fences, and Irrigation System)**

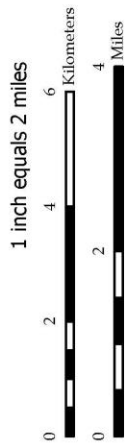
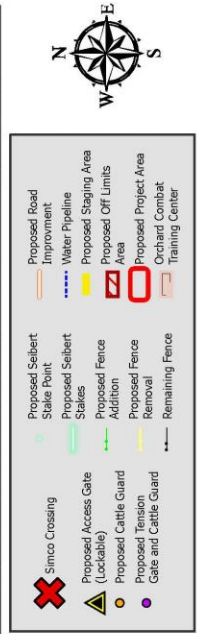
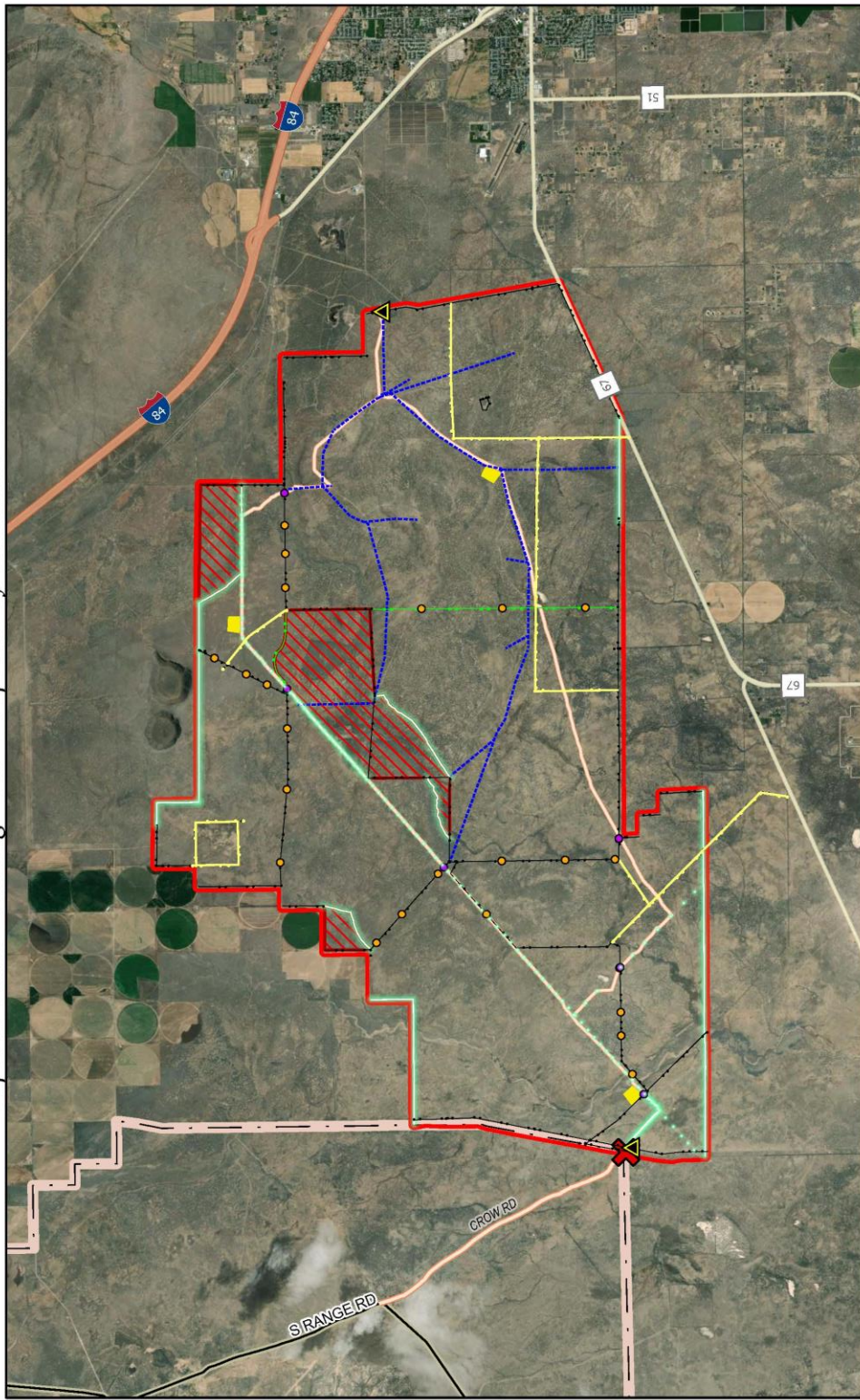
1 **2.4 ALTERNATIVE A – UNDEFINED ENGINEERING SITES, PUBLIC**  
2 **ACCESS RESTRICTIONS, FEWER FENCES**

3 All training and support activities, as well as infrastructure and design features outlined in  
4 **Section 2.3**, would be the same under Alternatives A and B. Under Alternative A, the location of  
5 the engineering tasks, also known as dig sites (**Section 2.3**), conducted within the proposed project  
6 area would have fewer spatial restrictions than under Alternative B (**Section 2.5**). Under  
7 Alternative A, the only areas within the proposed project area that would be restricted from  
8 engineering tasks would be all off-limits areas including temporary rehabilitation sites, the three  
9 assembly areas, and lands within 50 meters of the buried water lines, road, and powerline (Map 6).  
10 As such, engineering tasks would be restricted on roughly 3,600 total acres (13 percent) of the  
11 proposed project area, with the residual 24,830 acres (87 percent) available. Of the restricted  
12 3,600 acres, 1,790 acres are on BLM/BOR lands, and 1,810 are on IDL-managed lands. Outside  
13 the restricted area, engineering tasks and locations would be determined by the individual unit  
14 based on training strategy, objectives, availability, and logistics (Map 6).

15 Under Alternative A, the IDARNG would have the option to restrict public access to BLM/BOR  
16 land managed by BLM within the proposed project area for up to 30 days annually. There would  
17 be no time limit on access restriction on the IDL-managed lands. The IDARNG would comply  
18 with BLM and IDL notification policies, and restrictions would be limited to the timeframes  
19 associated with active maneuver training only. The training unit would be responsible for  
20 identifying and coordinating with all public users in the area prior to training events, and blocking  
21 and controlling all access points through the duration of training exercise. There would be no  
22 public access restrictions on the proposed project area during non-maneuver activities. The  
23 IDARNG and DoD units are not required to restrict public access during training activities. For  
24 BLM-managed lands only, the 30 days do not have to be used consecutively; rather, these would  
25 be options available for military units using the proposed project area for maneuver training  
26 activities to schedule access-restricted days around training activities. Currently, there are no  
27 existing public access restrictions on the OCTC for maneuver activities outside the Impact Area.

28 Under Alternative A, the BLM and IDL would authorize the IDARNG to lock the constructed  
29 metal gates at the Simco Road and NW Bypass Road access points (Map 6). A daisy chain  
30 (interlocking individual locks) would be in place on the gates, allowing IDARNG, BLM, IDL, and  
31 the current permittee(s) access at these specific locations. Public access to the BLM-managed lands  
32 from Simco Road would only be limited at this single location. The intent of locking these single  
33 gates is to reduce maintenance requirements and limit user conflicts between the military and the  
34 public. The public would still have access to the site using three other access points on Simco  
35 Road, all within 1 mile, two other access roads off Cinder Butte Road, and two other access points  
36 on NW Bypass Road (**Section 3.2**).

Proposed Simco Training Area - Proposed Infrastructure Alternative A



UTM Zone 11 North Meters  
 North American Datum 1983/WGS84  
 GIS Systems, Environmental Management Office  
 IDARNG  
 August 2021

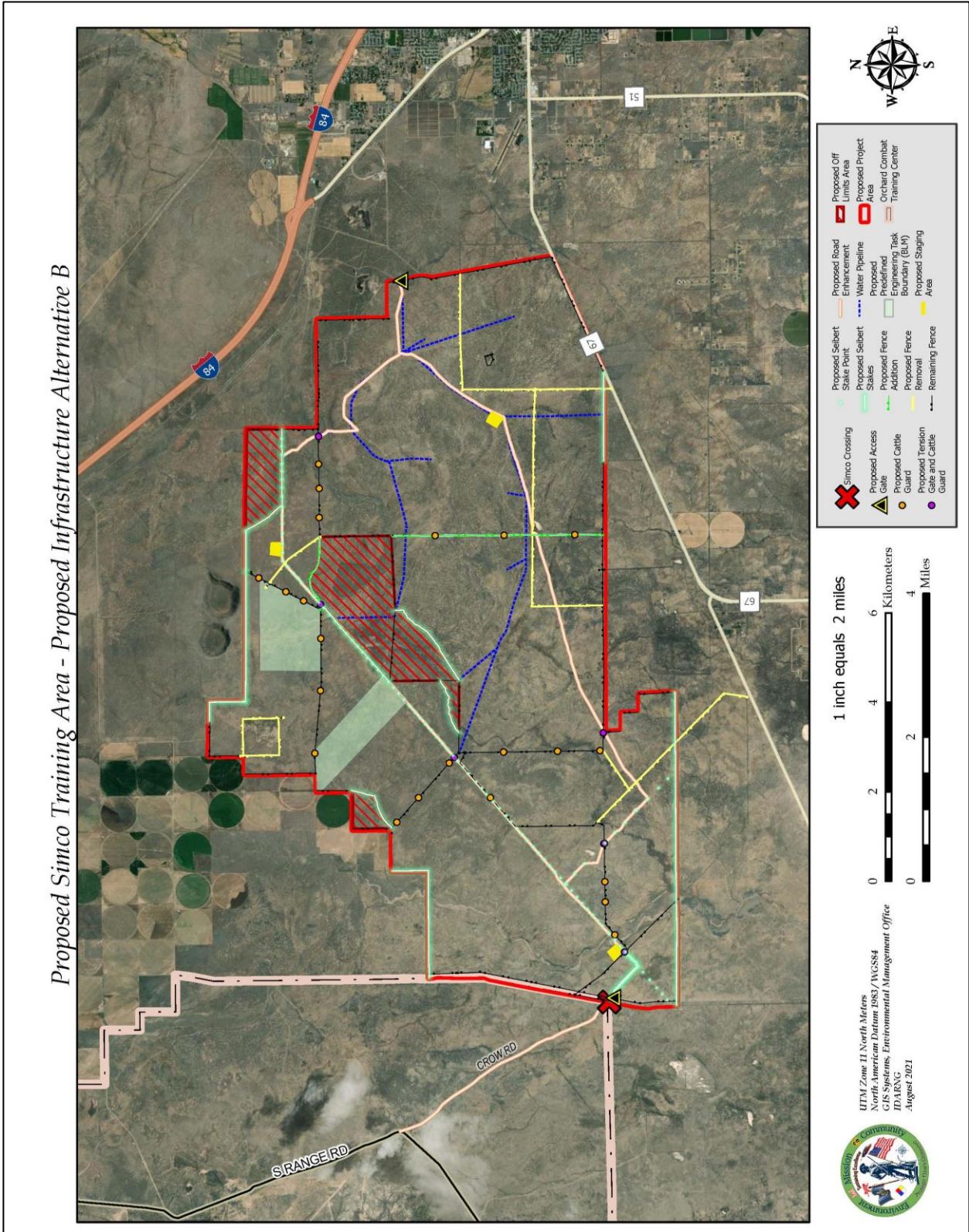
- 1
- 2 **Map 6. Alternative A Proposed Infrastructure**
- 3 Note: Additional fencing outlined in Alternative A has been omitted from this map to preserve cultural site location protection.

1 **2.5 ALTERNATIVE B – DEFINED ENGINEERING SITES, NO ACCESS**  
2 **RESTRICTIONS, ADDITIONAL FENCES**

3 All training and support activities, as well as infrastructure and design features outlined in  
4 **Section 2.3**, would be the same under Alternatives A and B. Under Alternative B, the location of  
5 the engineering training activities and dig sites conducted on BLM-managed lands (12,776 total  
6 acres) would be limited to the boundaries identified on Map 7, which is approximately 1,100 acres.  
7 This is 3.9 percent of the proposed project area and 8.6 percent of the BLM-managed lands.  
8 Engineering tasks and activities on BLM-managed lands would be restricted outside these defined  
9 areas. There would be no engineering training activities and dig sites on BOR lands under this  
10 alternative. Engineering training activities and dig sites on IDL-managed lands would be the same  
11 as under Alternative A.

12 As under Alternative A, under Alternative B, engineering tasks would still be determined by  
13 training strategy, objectives, availability, and logistics, and the maximum area affected annually  
14 would not exceed 15 acres, with a maximum of 5 acres on BLM-managed lands and 10 acres on  
15 IDL-managed lands. Also, once training is completed, the sites would be regraded to existing  
16 topography and seeded according to the approved seed mix and identified SOPs outlined in  
17 Appendix G.

18 Under Alternative B, the IDARNG would not have the option to restrict public access to  
19 BLM/BOR land managed by BLM for any time within the proposed project area. The IDARNG  
20 would be authorized to restrict public access to IDL-managed lands, but restrictions would be  
21 limited to timeframes associated with active maneuver training activities. The training unit would  
22 be responsible for clearing the IDL area prior to training events and blocking and controlling all  
23 access points through the duration of the training exercise. Access restrictions on IDL-managed  
24 lands do not include access to the site by the permittee. There would be no public access restrictions  
25 on the site during non-maneuver activities. The IDARNG is not required to restrict public access  
26 to the IDL during training activities (in other words, the OCTC military training activities may  
27 occur with no public access restrictions). The BLM would not authorize the IDARNG to lock the  
28 constructed metal gate at the Simco Road access point, but the access gate on NW Bypass Road  
29 could still be locked (Map 7).



1  
2 **Map 7. Alternative B Proposed Infrastructure**  
3 Note: Additional fencing outlined in Alternative B has been omitted from this map to preserve cultural site location protection.

1 **2.6 ALTERNATIVES CONSIDERATION PROCESS**

2 National Environmental Policy Act, CEQ regulations, and 32 CFR Part 651 require all reasonable  
3 alternatives to be explored and evaluated objectively. Alternatives eliminated from detailed study  
4 must be identified, and a brief summary of the reasons for their dismissal should be provided. For  
5 purposes of this process, the initial alternative development process was completed in two phases:  
6 (1) site evaluation and selection, and (2) design features and management strategies.

7 The IDARNG determined the proposed training site based on defined screening criteria and a site  
8 assessment process. A site was considered reasonable only if it fully met the site selection criteria  
9 in **Section 2.6.1**. Sites and locations were considered unreasonable if they did not meet the  
10 screening criteria, were determined to be logistically or economically infeasible in the assessment  
11 process, or would not enable the IDARNG to fully meet the purpose of and need for the Proposed  
12 Action. The proposed project area was initially submitted to the IDT for review in 2020. Based on  
13 input from the IDT, additional modifications were made to the proposed boundary to address  
14 potential resource or user conflicts.

15 The second phase of the alternative consideration process was associated with the development of  
16 design features and management guidelines. The design features and management guidelines  
17 outlined in **Section 2.3** were developed through an interactive process between IDARNG, BLM,  
18 IDL, and local stakeholders (Simplot LLC, Elmore County Highway District, and Idaho Power  
19 Company). Based on the proposed location and potential impacts to existing resources and uses  
20 that the IDT and local stakeholders established, a set of defined design features and management  
21 guidelines were developed. These design features and management guidelines were either  
22 consistent for both alternatives, or specific to one alternative.

23 The proposed project area boundary, design features, and management guidelines were used for  
24 the public scoping process (**Section 1.4**). Public comments were reviewed and incorporated using  
25 the same process to further refine the location, design features, and management guidelines as  
26 warranted. Alternatives the public proposed were addressed in the selection criteria and alternative  
27 assessment process (**Sections 2.6.1**). If the proposed alternative(s) fully met the siting criteria and  
28 IDARNG’s purpose and need, they were included in the alternatives assessed in **Section 3.0**. If  
29 not, they were eliminated from further consideration with justification (**Section 2.6.3**).

30 **2.6.1 Alternatives Development (Site Screening Criteria)**

31 Based on the IDARNG’s mission and the management guidelines for military training operations  
32 implemented by the BLM on the OCTC (2008 NCA RMP [BLM]), IDARNG staff initiated  
33 concept planning in 2016 to identify potential alternatives to address identified training  
34 issues/deficiencies. Because there were no viable alternatives identified for the OCTC itself  
35 (**Section 2.6.1**), it was determined that training lands outside the existing boundary of the OCTC  
36 were needed. In addition, based on the infrastructure needed to support the existing mission and  
37 associated level of use and training, authorized by the BLM under the 2020 RPMP EA (ARNG  
38 and BLM 2020), it would be logistically and economically infeasible to locate additional proposed  
39 training lands anywhere but directly adjacent to the existing OCTC boundary.

1 Based on the land ownership and parcel configuration in the area around the OCTC, there were  
2 five potential options for external training lands (Map 8): private, BLM/BOR, IDL, a combination  
3 of private and BLM/BOR or IDL, and a combination of BLM/BOR and IDL. There are no other  
4 land ownerships of sufficient size and in proximity to the OCTC to be economically and  
5 logistically viable alternatives. To address the identified purpose and need in a manner that is  
6 logistically and economically feasible, the IDARNG and NGB developed the following six siting  
7 criteria:

- 8 1. The proposed project area had to be located directly adjacent to, or in proximity to, the existing  
9 training lands of the OCTC.
- 10 2. The proposed project area had to be of sufficient size and configuration to sustainably meet  
11 DoD maneuver training requirements as defined under FM 3-96 and TC 25-1.
- 12 3. The proposed project area had to be of sufficient size and configuration to sustainably support  
13 the completion of an xCTC for a full BCT within 30 days and comply with DoD Instruction  
14 Number 1215.06 and NGR 350-1.
- 15 4. The proposed project area had to be of sufficient size and configuration to sustainably conduct  
16 LSCO to meet METL proficiency.
- 17 5. The proposed training lands would allow for required military training operations with limited  
18 restrictions and limited conflicts with public users.
- 19 6. The acquisition of proposed training lands had to be economically feasible and allow for a  
20 long-term use agreement in excess of 20 years.

21 To better support the site selection process, a set of assessment parameters and associated  
22 assumptions were also developed to further define, guide, and justify the site selection process.  
23 These selection parameters and assumptions include the following:

- 24 • Proximity to the OCTC: This parameter includes distance, required infrastructure, and logistics  
25 (administrative support). A training site would have to be in proximity to the OCTC to be  
26 reasonably accessible without the need for additional facilities or administrative support. It is  
27 assumed that as the distance from the OCTC increases, the amount of infrastructure and  
28 associated costs and logistic support would also increase. As such, the feasibility of the site as  
29 a reasonable alternative decreases as the distance away from the OCTC is increased.
- 30 • Size: Based on input from IDARNG and NGB training staff, a minimum of 25,000 to  
31 30,000 acres of consolidated, available, and usable training lands is needed. This number was  
32 based on professional opinions and the existing level of use and associated impacts to  
33 maneuver corridors within the OCTC. The size of the area needs to be sufficient to meet  
34 military training requirements in a sustainable manner (with site-specific rest and rotation of  
35 affected sites within training lanes and engineering sites). As the size of the area decreases, or

1 there is less usable training space available within the site (refer to the following  
2 “Configuration” section), the feasibility of the site as a reasonable alternative decreases.

- 3 • Configuration: This parameter includes the length, width, and topography of training site.  
4 Under DoD training doctrine (FM 3-96, TC 25-8, and others), individual training lanes  
5 required a minimum width of 3.5 kilometers (km) (2.18 miles) and a minimum length of  
6 7.5 km (4.7 miles) for company-on-company level exercises (Appendix A). Sites with greater  
7 topographic relief (more contoured terrain) are considerably better training sites than those  
8 with limited topographic relief (flat). This assumes the topography is usable and does not  
9 exceed safety parameters (by being too steep). Sites with large, contiguous open areas that are  
10 fully accessible are superior to sites that are narrow, which cause bottlenecks, or that are  
11 fragmented, which means they do not meet the minimum size requirements at one location and  
12 require training operations to stop and restart on a different training area. Fragmented sites can  
13 include physical barriers, like roads, or administrative restrictions (refer to the following  
14 “Restrictions and limitations” section). If the site configuration does not meet the lane  
15 requirements or the amount of bottlenecks or fragmentation makes training unrealistic, the  
16 feasibility of the site as a reasonable alternative decreases.
- 17 • Restrictions and limitations: Training restrictions or limitations derived from either external or  
18 internal management requirements reduce the effectiveness of a site for training and increase  
19 the amount of resources needed to manage it. For example, areas with higher-value natural or  
20 cultural resources are likely to have more sites made off limits to training based on  
21 administrative guidelines, such as the 10 percent rule, protection of cultural sites, and  
22 protection of special-status species. In addition, sites in closer proximity to residential  
23 communities or where there is greater public use (refer to the following “Public use conflicts”  
24 section) would have more management considerations (restrictions and limitations) than sites  
25 that are more isolated. As the amount of restrictions and limitations increases on a site, the  
26 feasibility of the site as a reasonable alternative decreases.
- 27 • Public use conflicts: Areas in proximity to high population centers with easy access and  
28 existing or known public uses, like the OCTC, or with identified destination points, like the  
29 BLM craters, are likely to have greater user conflicts with military training activities in  
30 comparison to more isolated sites with very little existing public use. Similarly, training  
31 activities conducted on sites in closer proximity to existing residents or municipalities are more  
32 likely to receive training-related complaints from the public in comparison to more remote  
33 sites. In contrast, military training activities in proximity to residential areas are likely to have  
34 fewer complaints if they are in proximity to similar existing uses, such as Mountain Home  
35 AFB or the existing small-arms firing range. Therefore, as the distance from existing and  
36 known public use areas or residents increases, or if there are other similar military uses in close  
37 proximity, the feasibility of the site as a reasonable alternative increased.
- 38 • Use agreement and economic feasibility: The use agreement with the land owner and manager  
39 had to be long term, in excess of 20 years, in order to meet NGB funding requirements. In  
40 addition, the total capital expenditures to acquire and maintain the training area were taken into  
41 consideration. As the initial and long-term capital and maintenance expenditures increase, the  
42 feasibility of the site as a reasonable alternative decreased.



1 **2.6.2 Site Selection Results and Justification**

2 IDARNG used the siting criteria and assessment process (**Section 2.6.1**) to determine if the  
3 proposed project areas were reasonable or unreasonable alternatives. The following sections and  
4 Table 2-2 summarize the determinations and justifications for each land ownership option.

5 ***Private Lands***

6 The acquisition and use of private lands would fully meet siting criteria 1 because the lands are  
7 directly adjacent to the OCTC. The overall amount of private lands in the area that would be  
8 reasonably accessible without the need for additional facilities to support the training activities is  
9 less than 25,000 acres. As such, this alternative would not fully meet the siting criteria 2, 3, or  
10 4 based on the size and configuration parameters. The existing parcels in proximity to the OCTC  
11 are mostly fragmented with multiple small or narrow parcels and roads bisecting them. In addition,  
12 the lands are generally flat with very limited topographic relief and are not conducive to realistic  
13 training operations.

14 Access to the adjacent private lands would require a new crossing on Simco Road, but the lands  
15 would be easily accessible and have the fewest training limitations relative to the other options.  
16 As such, this option would partially meet siting criterion 5. However, the proximity (directly  
17 adjacent) to existing residential and industrial development in the area is likely to result in  
18 complaints and localized conflicts with the public. As such, the private lands would not fully meet  
19 criterion 5.

20 The IDARNG/NGB would have to purchase (fee and title) all private lands used for training (there  
21 are no lease options), and multiple landowners would be required to obtain a sufficient amount of  
22 land to support training operations. While this would meet siting criterion 6 relative to the  
23 long-term agreement, it was not economically feasible and would not meet siting criterion 6 based  
24 on the estimated costs and required capital improvements. The economic feasibility was based on  
25 a simple internet search for bare ground land prices in Elmore County (Landwatch 2021). The  
26 price identified for bare ground in the area ranged from \$1,500/acre to \$5,800/acre. Based on  
27 25,000 acres, the initial cost to acquire private lands would be approximately \$37.5 million to  
28 \$145.0 million, plus capital improvements.

29 This alternative would fully meet siting criterion 1, but only partially meet criteria 2, 3, 4, 5, and  
30 6, so the use of private lands was not identified as a reasonable alternative (Table 2-2).

31 ***BLM/BOR Land Managed by BLM***

32 The use of BLM/BOR land managed only by BLM would fully meet siting criterion 1 because the  
33 lands are directly adjacent to the OCTC. There are also sufficient BLM-managed lands in the area  
34 (in excess of 25,000 acres) to meet the size criteria for 2, 3, and 4. This assumes that additional  
35 BLM/BOR parcels managed by BLM to the north of the proposed project would be included.  
36 These lands are mostly fragmented (by roads, craters, fences, and other obstacles) with multiple  
37 isolated or narrow parcels, and the majority of the lands are flat with limited topographic relief.  
38 Unlike these northern sites, the larger, more consolidated BLM/BOR lands managed by BLM to  
39 the south (proposed project area) do have sufficient topographic relief to support maneuver training

1 activities. Based primarily on the northern parcels, the use of BLM/BOR lands managed by BLM  
2 would not meet siting criteria 2, 3, or 4 relative to the configuration, and would not be conducive  
3 for realistic training operations.

4 Access to the BLM/BOR land managed by BLM would be with the existing crossing on Simco  
5 Road, and the land would be accessible. However, based on resource clearances in the area, the  
6 BLM-managed lands to the north of the proposed project area would have a greater number of  
7 resource-based restrictions (training limitations) due to existing natural and cultural resources, and  
8 increased public use associated with the craters relative to the more isolated BLM-managed lands  
9 in the south. In addition, the northern BLM-managed lands are closer (directly adjacent) to existing  
10 residential and industrial development in the area, likely resulting in increased complaints and  
11 localized conflicts with the public. As such, BLM/BOR lands managed by BLM would not fully  
12 meet siting criterion 5.

13 Use of BLM-managed lands can be authorized under long-term ROW agreements (20 years or  
14 more) under the FLPMA. Because the IDARNG and NGB would not have to fully purchase the  
15 property (fee and title), this is also an economically feasible option that would fully meet siting  
16 criterion 6. The authorization of a ROW grant would also give the BLM complete oversight and  
17 management authority because the applicant (IDARNG) must comply with all stipulations outlined  
18 in the ROW authorization or the ROW may be suspended or revoked.

19 This option would fully meet siting criteria 1 and 6, but only partially meet citing criteria 2, 3, 4,  
20 and 5. This alternative would not meet the configuration requirements and would not be conducive  
21 for realistic training operations. There would also be greater management restrictions and  
22 limitations and public use conflicts in the northern parcels. As such, the use of BLM/BOR lands  
23 managed by the BLM was not identified as a reasonable alternative (Table 2-2).

24 ***IDL-Managed Lands***

25 The use of IDL-managed lands would only partially meet siting criterion 1 because the lands are  
26 not directly adjacent to the OCTC and would require a BLM authorized ROW to access the parcel  
27 for training purposes. As such, this would be the least accessible option. There are also insufficient  
28 IDL-managed lands in the area closest to the OCTC (less than 25,000 acres) to fully meet the size  
29 component for siting criteria 2, 3, or 4. However, these lands are consolidated and wide open, with  
30 limited fragmentation and good topographical relief; therefore, they are conducive for military  
31 training operations and would meet the configuration component of siting criteria 2, 3, and 4.

32 To fully meet the size criteria for 2, 3, and 4, additional IDL-managed lands to the east and south  
33 would need to be included. If these lands were added, the parcel configuration would not be  
34 conducive for military training operations because those lands are fragmented by public roads,  
35 multiple small or narrow parcels, and private land holdings throughout. Idaho Department of  
36 Lands-managed lands in this area are also generally flat with limited topographic relief, which  
37 means they would not be conducive for military training operations and would not meet siting  
38 criteria 2, 3, or 4 relative to configuration.

1 Based on the difference in state and federal management guidelines, the use of IDL-managed lands  
2 would have the second fewest training limitations, with private having the least. However, in order  
3 to meet the size criteria, IDL-managed lands to the south and east would be required. These lands  
4 are directly adjacent to existing residential areas (with the highest density of any option), industrial  
5 development, and the town of Mountain Home. As such, the likelihood of complaints and localized  
6 conflicts with the public would be the greatest under this alternative and would not meet siting  
7 criterion 5.

8 Use of IDL-managed lands can be authorized under a long-term (up to 20 years) lease agreement.  
9 Because the IDARNG and NGB would not have to fully purchase the property (fee and title), this  
10 is also an economically feasible option that would meet siting criterion 6.

11 This alternative would fully meet siting criterion 6, but would only meet siting criteria 1, 2, 3, and  
12 4 relative to access and size if lands to the south and east were added. By adding these lands, this  
13 option would no longer be conducive for military training operations and would not meet siting  
14 criteria 2, 3, or 4 relative to configuration. While this option would have the second fewest  
15 management restrictions and limitations, the proximity to residents and Mountain Home would  
16 likely result in the greatest public conflicts and would not fully meet criterion 5. As such, the use  
17 of only IDL-managed lands was not identified as a reasonable alternative (Table 2-2).

18 ***Combination of Private Lands with BLM/BOR or IDL-Managed Lands***

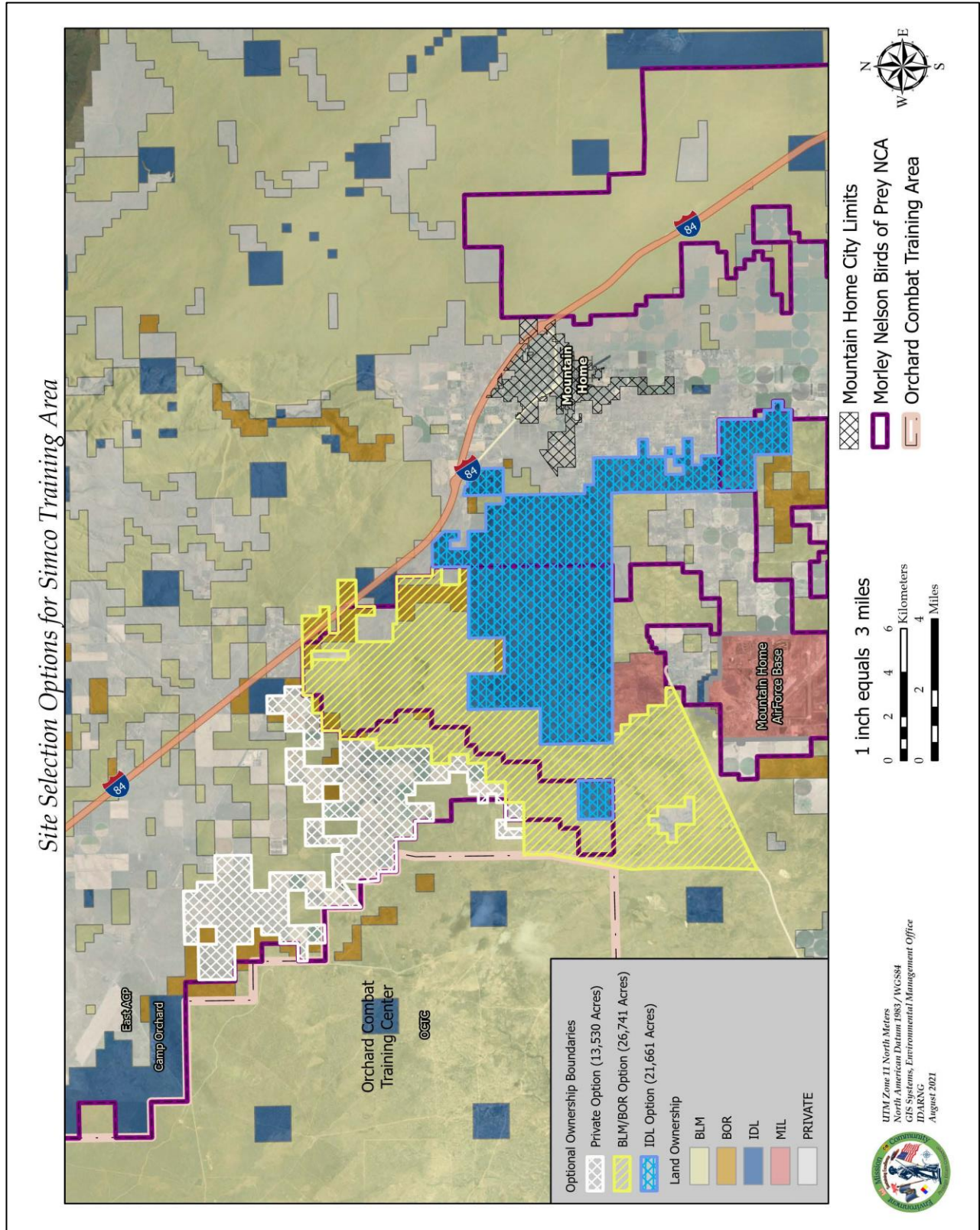
19 Under this option, the lands would meet siting criterion 1 and size criteria 2, 3, and 4, but would  
20 not meet the configuration criteria (2, 3, or 4), the public conflict criterion (5), or the economic  
21 feasibility criteria (6) associated with the acquisition of private lands. As such, there is no  
22 configuration of private lands with BLM/BOR- or IDL-managed lands that would adequately meet  
23 all five siting criteria (Table 2-2), and it was not identified as a reasonable alternative.

24 ***Combination of BLM/BOR and IDL-Managed Lands***

25 The use of both BLM/BOR land managed by BLM and IDL-managed lands can be configured as  
26 such to fully meet all six siting criteria. The proposed project area would be directly adjacent to  
27 the OCTC (criterion 1), and the size (more than 25,000 acres) and configuration (large, open  
28 consolidated land ownership with usable topographic relief) of the proposed project area would be  
29 conducive for military training operations and would meet siting criteria 2, 3, and 4.

30 Based on the existing condition of the site, coupled with its remoteness, there would be fewer  
31 resource-based management restrictions (training limitations) to preclude required training  
32 operations. The proposed project area would also be the most remote option and would likely result  
33 in fewer conflicts with public access and use relative to the other options. In addition, there are  
34 considerably fewer residential conflicts because there are fewer than 10 residents within a 1-mile  
35 buffer of the proposed project area. As such, this option would fully meet siting criterion 5.

36 The use of BLM/BOR lands managed by BLM and IDL-managed lands allows for long-term  
37 agreements, and the IDARNG and NGB would not have to fully purchase the property (fee and  
38 title). As such, this is an economically feasible option that would fully meet siting criterion 6.



1

2 **Map 8. Site Selection Options for the Proposed Project Area**

1 Because the lands in this configuration would fully meet siting criteria 1 through 6 (Table 2-2), as  
2 well as the IDARNG's and BLM's purpose and need, this is the only reasonable option related to  
3 the location and configuration of the proposed project area. As such, the proposed project area is  
4 consistent across all alternatives, with site-specific design features and management guidelines  
5 used to develop a full range of alternatives (**Section 2.3**).

### 6 **2.6.3 Alternatives Eliminated from Further Consideration**

7 Based on the site selection and design features development process, coupled with input from  
8 public comments received during the scoping process, IDARNG eliminated four proposed  
9 alternatives from further consideration. These include the use of private lands adjacent to the  
10 OCTC, the use of BOR lands managed by BLM adjacent to the OCTC, the use of IDL-managed  
11 lands adjacent to the OCTC, and the increased efficiency and use of lands within the existing  
12 OCTC boundary with augmented training using simulators in place of on-the-ground training  
13 activities.

14 The alternatives identified for use of private land, BLM/BOR land managed by BLM,  
15 IDL-managed land, or combinations with private lands adjacent to the OCTC were eliminated  
16 from consideration based on the site selection criteria and assessment process outlined in **Sections**  
17 **2.6.1** and **2.6.2**. These alternative locations would not meet the IDARNG's purpose and need or  
18 siting criteria.

19 The increased efficiency and use of lands within the existing OCTC boundary with augmented  
20 training using simulators in place of on-the-ground training activities was also eliminated from  
21 consideration. The IDARNG currently maximizes the use of available lands within the OCTC.  
22 Increasing the level of use on residual OCTC lands is not sustainable over the long term. Similarly,  
23 simulators are currently used to the extent possible. While an effective training tool, simulators  
24 cannot replicate the environmental conditions (heat, cold, rain, snow, dust, and mud) that soldiers  
25 face during combat situations. Nor can they replicate in-field situational awareness resulting from  
26 equipment failures, supply and personnel issues, health and safety impacts, and other  
27 circumstances. In addition, all soldiers must meet minimum training requirements outlined in  
28 FM 3-96 (Army 2015) and TC 25-1 (Army 1978), which must be completed in the field.  
29 Inadequately trained soldiers would not ensure troop combat readiness and would put soldiers in  
30 harm's way.

1

Table 2-2. Summary of Site Screening Criteria

Screening Criteria	No Action	Private Lands	BLM/BOR	IDL-managed Lands	Combination – Private and BLM/BOR or IDL-managed Lands	Combination – BLM/BOR and IDL-managed Parcels (Proposed Action)
Located directly adjacent to, or in proximity to, the existing training lands of the OCTC	0	✓	✓	½	✓	✓
Sufficient size and configuration to meet DoD maneuver training requirements as defined under FM 3-96 and TC 25-1	0	½	½	½	½	✓
Sufficient size and configuration to support the completion of an xCTC for a BCT within 30 days	0	½	½	½	½	✓
Sufficient size and configuration to conduct LSCO to meet METL proficiency	0	½	½	½	½	✓
Allow for required military training operations with limited restrictions and limited conflicts with public users	0	½	½	½	½	✓
Economically feasible and allow for a long-term use agreement	0	½	✓	✓	½	✓

Notes:

✓ = fully meets design criterion

½ = partially meets criterion

0 = does not meet criterion

2

1                   **3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL**  
2   **CONSEQUENCES**

3   **3.1 INTRODUCTION**

4   **Sections 3.2** through **3.11** describe the existing condition of environmental, cultural, physical, and  
5   socioeconomic resources that would be affected if the Proposed Alternatives were implemented.  
6   This discussion provides a baseline from which potential impacts are identified. Agency and Tribal  
7   correspondences and IDT specialist reports were prepared for the resource areas assessed  
8   throughout this section. These reports are presented in Appendices E, H, I, J, K, and L to provide  
9   background information to define the affected environment for each resource area.

10   **Sections 3.2** through **3.11** also assess the potential effects of the Proposed Alternatives for each  
11   resource area. The environmental consequence section analyzes the adverse or beneficial impact  
12   to each relevant resource associated with implementing the alternatives, including scope,  
13   timeframe, and intensity. These categories are defined for each individual resource or use in the  
14   sections that follow.

15   The proposed project area is the spatial reference associated with the IDARNG’s application and  
16   encompasses 28,430 acres of BLM- (12,776 acres), BOR- (555 acres; managed by BLM), and  
17   IDL-managed (15,097 acres) lands (Map 3). The region of influence (ROI) is the spatially defined  
18   boundary of consideration for the effects analysis for each individual resource or use. The IDT  
19   defined the ROI for each resource and use, and it may differ from the proposed project area, but at  
20   a minimum it will include the entirety of the proposed project area. Table 4-1 (**Section 4.2**)  
21   includes a summary of the resource and the defined ROI.

22   **3.1.1 Resources Identified for Analysis**

23   The resources identified for analysis were selected through a standardized process outlined in  
24   **Section 1.4**. The decision thresholds used for analysis were based on the following three factors:

- 25   1. Is the environmental component present?  
26   2. Is there potential of a substantial or measurable change to the environmental component?  
27   3. Is there material bearing on the decision process?

28   If the resources or use met all three criteria, it was included for analysis.

29   After considering comments received from the public and various agencies, the resource specialists  
30   of the IDT identified that the following resources or uses would be assessed: land use, air quality  
31   and climate change, noise, soils, biological resources, cultural resources, socioeconomic and  
32   public health and safety, transportation and infrastructure, and HTMW.

1 Those resources or uses that were not selected to be assessed further include paleontological  
2 resources, EJ, water resources, NCA, aesthetics and visual resources, airspace, utilities,  
3 communications, and solid waste. Refer to **Section 1.4.5** for the justification statement for each.

#### 4 **3.1.2 Analysis Assumptions**

5 Assessment of each alternative includes the proposed actions (location and design features) and  
6 the associated resource management actions used to avoid, reduce, or mitigate the level of  
7 identified impacts for each resource area. The IDARNG considers all resources management  
8 requirements (**Section 2.3.2**) and associated BMPs and SOPs (Appendix G) integral to the  
9 implementation of the Proposed Action; as such, the resource management and associated BMPs  
10 are not considered separate from the Proposed Alternatives. Mitigation measures are defined as  
11 project-specific requirements (not routinely implemented by the IDARNG) necessary to reduce  
12 identified potentially significant adverse environmental impacts to less than significant levels.  
13 There are no project-specific mitigation measures needed to reduce impacts of the Proposed  
14 Alternative to less than significant levels in any resource area.

15 However, under the 2020 MOU (Appendix B), the IDARNG is required to mitigate impacts related  
16 to all authorized ROWs associated with military training activities per the standardized  
17 enhancement process outlined in Attachment C of the MOU. While these are required mitigation  
18 actions, they are not required to reduce impacts of the Proposed Alternative to less than significant  
19 levels in any resource area.

20 The analysis of the Proposed Alternatives assumes the IDARNG would successfully implement  
21 all proposed actions. Impact analyses also consider the following general assumptions:

- 22 • The IDARNG and any contractors would adhere to all laws and regulations, including water  
23 rights (access, amount, and authorized use), air quality regulations, and ROW authorizations  
24 and enhancement requirements, during construction and postconstruction operations at all  
25 times.
- 26 • A cultural resource specialist would do a construction review during any excavation portion of  
27 the project. If any culturally significant resources are encountered, such activities shall cease  
28 until the attending resource specialist can make a full assessment.
- 29 • The type and intensity of military maneuver and engineering activities associated with the  
30 proposed project area would be no different than existing authorized training operations  
31 currently conducted in the OCTC (BLM 2008b and NGB/BLM 2020). There would be no  
32 live-fire training activities of any kind.
- 33 • There would be no net increase in overall training operations the BLM currently authorizes  
34 (NGB/BLM 2020). In other words, the same number and type of vehicles and soldiers (level  
35 of use) that currently use the OCTC on an annual basis (No Action Alternative) would be the  
36 same under Alternatives A and B. Only the amount of area available for training operations  
37 would change.



- 1 • All BLM-managed lands within the proposed project area would be accessible to the public  
2 unless the BLM authorizes a site- and time-specific closure.
- 3 • Public access could be restricted on IDL-managed lands. State lands are not considered public  
4 lands; rather they are state endowment lands. Management activities on these lands are not  
5 intended to benefit the general public, but are directed solely to the good of the beneficiaries  
6 of the original land grants. Unlike federal lands, which are required to grant access to the public  
7 unless access has been withdrawn through a land use process and authorization, state lands  
8 may restrict public access at any time to better manage the endowment lands for the purpose  
9 they were designated.
- 10 • Similar to livestock grazing operations, there is no way to accurately quantify the temporary  
11 or annual effects of off-road maneuver activities because they are dynamic in nature, meaning  
12 they will change annually based on the training type and objectives, location, type of unit, and  
13 needs. For example, there may be years with little or no training at all, or training activities are  
14 limited to roads and assembly areas. As such, the analysis of impacts for these types of training  
15 activities will be qualitative in nature. For analysis purposes, it is assumed that all recorded  
16 training impacts resulting in bare soil would be marked, made off limits for military training  
17 activities, and monitored until they are rehabilitated, that is, made equal to or better than pre-  
18 disturbance conditions using above ground vegetation as the indicator. Once the site has been  
19 rehabilitated, it would be open to military training activities again. The IDARNG's ITAM  
20 program would be responsible for all post-training rehabilitation, monitoring, and reporting.
- 21 • The spatial extent for temporary impacts in association with construction activities is defined  
22 as a variable width impact buffer around each project footprint to account for potential effects  
23 to the resource in the immediate surrounding area from construction activities.
- 24 • The IDARNG will successfully comply with all enhancement requirements outlined in the  
25 2020 MOU (Appendix B, Attachment C). Included in this standardized enhancement process  
26 is a set of success criteria and adaptive management tools. In the event that the IDARNG is  
27 not making progress toward these requirements, as outlined in the monitoring section,  
28 alternative enhancement methods may be identified and implemented. Included in these  
29 alternative enhancement methods could be alternative restoration methods, direct funding for  
30 BLM restoration plans, and spatial or temporal training restrictions.

### 31 **3.1.3 Location Description**

32 The proposed project area is located in Elmore County, Idaho, approximately 2 miles west of  
33 Mountain Home, Idaho and 25 miles southeast of Boise, Idaho (Map 1). The proposed project area  
34 is approximately 28,430 acres, and is located east of Simco Road, adjacent to the OCTC. The  
35 majority of the site (20,919 acres or 74 percent) is found within the boundaries of the NCA, with  
36 the residual 7,510 acres (26 percent) outside the NCA (Map 2). The lands outside the NCA consist  
37 of 4,175 acres of IDL-managed and 3,335 acres of BLM-managed lands.

38 The lands east of the proposed project area are primarily BLM public land, some state land, and  
39 small portions of privately owned agricultural land and rangelands (Map 2). Scattered private  
40 residences are located within 0.5 mile to the southeast corner of the proposed project area,

1 becoming denser closer to Mountain Home. The Mountain Home Municipal Airport is roughly  
2 1.0 mile to the east, and the Mountain Home AFB is roughly 3.5 miles to the south of the proposed  
3 project area. The Mountain Home AFB small-arms firing range is adjacent to the southern border  
4 of the proposed project area. Irrigated agriculture is located to the north of the proposed project  
5 area. Two gravel pits are located adjacent to the northeast corner of the proposed project area  
6 roughly 0.3 and 1.0 mile from the proposed project area boundary.

7 The proposed project area would occur in southeastern Elmore County, within the Snake River  
8 Basin ecoregion typified by xeric intermontane basin and rangelands that are considerably lower  
9 and more gently sloping than the surrounding ecoregions (Purdue University 2018). The climate  
10 is semiarid and characterized by hot, dry summers with an average total annual precipitation of  
11 9.97 inches. The average annual maximum temperature is 64.5 degrees Fahrenheit (°F) and the  
12 average annual minimum temperature is 35.7°F (WRCC 2018).

13 **3.1.4 Land Cover**

14 Land cover within the proposed project area is within the regional landform and vegetation  
15 classification known as the Southern Xeric Shrubland and Steppe (IDFG 2005 as cited in  
16 Warner 2014b). This region contains a diverse combination of landforms, ranging from basins to  
17 mountains. However, the proposed project area is a relatively flat basin with elevations ranging  
18 from 3,050 to 3,300 feet above mean sea level, with lower elevations occurring along the southern  
19 and eastern boundaries. Potential native plant communities, as determined by Natural Resources  
20 Conservation Service Ecological Site Descriptions, range from salt-desert shrublands on drier  
21 sites, to shrub-steppe communities with sagebrush or winterfat shrub cover and native grasses  
22 (USDA NRCS 2018). **Section 3.6** fully describes the existing and potential vegetation  
23 communities identified within the proposed project area.

24 **3.2 LAND USE (LIVESTOCK GRAZING, MILITARY TRAINING, AND**  
25 **RECREATION AND ACCESS)**

26 The BLM/BOR and IDL manage the lands associated with the proposed project area (Map 2). The  
27 primary land uses in the area are livestock grazing (refer to the authorized uses throughout this  
28 section) and recreation/public access on BLM/BOR lands managed by BLM. The area is currently  
29 designated as rangeland, and there are no zoning designations, easements, ROWs, or other  
30 development conditions associated with the area relative to land use.

31 **3.2.1 Livestock Grazing**

32 *Affected Environment – Livestock Grazing*

33 The ROI for livestock grazing includes any allotments and associated pastures intersecting with  
34 the proposed project area. The total area amounts to 45,433 acres, which is comprised of  
35 27,092 acres of BLM-managed and BOR land managed by BLM (60 percent), 16,320 acres of  
36 state-managed land (36 percent), and 2,021 acres private land (4 percent). Tables 3-1 and 3-2  
37 contain a breakdown of the acres and animal unit months<sup>2</sup> (AUMs) by allotment and ownership,

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<sup>2</sup> An animal unit month is the amount of forage an animal unit needs to graze for 1 month.

1 along with seasons of operation per allotment within the ROI. There are currently three permitted  
 2 operators using these allotments. However, there is only one permitted operator (Simplot LLC)  
 3 within the proposed project area.

4 The current available forage is limited to low stature grasses (*Poa secunda* and *Elymus elymoides*),  
 5 minimal shrubs (*Artemisia tridentate* and *Chrysothamnus viscidiflorus*), and exotic annuals  
 6 (*Salsoa tragus*, *Bromus tectorum*, and several mustard species).

7 Within each allotment, there is a number of existing range projects and infrastructure to support a  
 8 livestock grazing operation. These include allotment and pasture fences, gates, cattle guards,  
 9 irrigation lines, water troughs, and roads and trails. **Section 3.10** outlines the range projects and  
 10 infrastructure within the ROI.

11 **Table 3-1. Acres and AUMs by Allotment and BLM/BOR Ownership**

Allotment	Season of Operation	Pastures	Acres of BLM/BOR	Total AUMs	Acres/AUM BLM/BOR
Rattlesnake Seeding (A)	Spring/fall	Rock Damn Small Arms #2 New Field	4,797	785	6.11
Rattlesnake Seeding (B)	Spring/fall	Simco Road Field	3,921	515	7.61
Crater Rings	Spring	Crater Rings	3,167	750	4.22
Squaw Creek	Spring/fall	Small Arms #1 Rock House East Crater II Seeding Rail Road Rock House West Sheep Butte Seeding Farm to Market	15,206	2,972	5.12
<b>TOTAL</b>			<b>27,091</b>	<b>5,022</b>	<b>23.06</b>

Notes:

Rattlesnake seeding is separated into “A” and “B” to show different stock rates for each area.

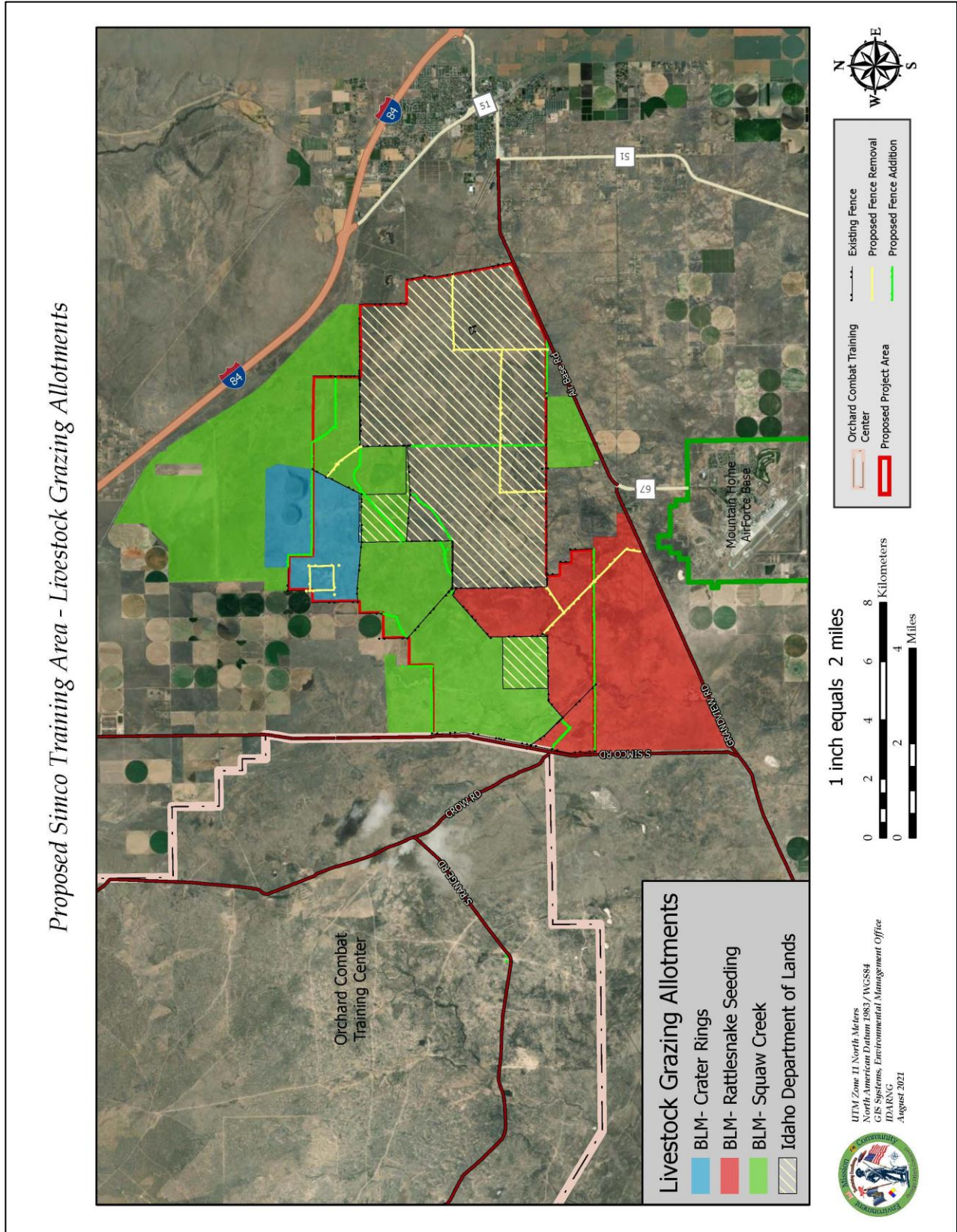
Numbers may not total due to rounding.

1

**Table 3-2. Acres and AUMs by Allotment and IDL Ownership**

<b>Allotment</b>	<b>Season of Operation</b>	<b>Pastures</b>	<b>Acres of IDL</b>	<b>Total AUMs</b>	<b>Acres/AUM IDL</b>
Squaw Creek	Spring/fall	Rock House East Rail Road Rock House West Sheep Butte Seeding Farm to Market	1,305	118.0	11.1
IDL		Simplot LLC	15,015	1,609.0	9.37
<b>TOTAL</b>			16,320	1,727	20.47

2



1

2 **Map 9. Livestock Allotments within the Proposed Project Area**

1 **Environmental Consequences – Livestock Grazing**

2 **Issue Statement:** How would surface disturbance activities associated with the Proposed Action  
3 affect available forage and livestock operations such as access, use, and infrastructure?

4 **Indicators:** Acres of forage (vegetation) loss (both permanent and temporary), change in percent  
5 forage availability, and changes to infrastructure.

6 **Significance Criteria:** Impacts to onsite livestock grazing operations (forage availability, access,  
7 or infrastructure) that directly result in BLM or IDL administrative adjustments to the existing  
8 permit(s) or AUM rates, and result in an economic loss or gain to the permittee of greater than  
9 20 percent, would be considered significant.

10 **Short Term:** Two years or four livestock grazing seasons.

11 **Long Term:** Greater than 2 years.

12 **Region of Influence:** The ROI for livestock grazing includes any allotments and associated  
13 pastures intersecting with the proposed project area.

14 **Effects of the No Action Alternative – Livestock Grazing**

15 Implementation of the No Action Alternative would have no effect to the current livestock grazing  
16 conditions within the ROI. Authorized uses and their impacts to vegetation, including off-highway  
17 vehicle (OHV) use, military training within the OCTC, and livestock grazing as described in the  
18 Affected Environment, would continue at their current levels within the ROI.

19 **Effects of Alternative A – Livestock Grazing**

20 Under Alternative A, short- and long-term impacts would be adverse and potentially beneficial,  
21 but less than significant. Construction activities associated with road enhancements (49.2 acres)  
22 and three assembly areas (60 acres) would result in the permanent (long-term) loss of up to  
23 109.2 acres of available forage. The area affected by the proposed road enhancement would total  
24 82 acres; however, the road would be placed on an existing two-track road. A large portion (nearly  
25 40 percent) of the 82 acres affected has been previously disturbed and is currently bare ground, so  
26 the actual loss of available forage due to road enhancements would be 49.2 acres, as previously  
27 noted. The permanent loss of acres of available forage would equate to approximately 0.25 percent  
28 of the ROI, with a total AUM equivalent loss of 16.83 AUMs across all lands (IDL and BLM).  
29 The permanent loss of IDL-managed acres of available forage would equate to approximately  
30 0.12 percent of the ROI, with a total AUM equivalent loss of 5.08 AUMs. The permanent loss of  
31 BLM-managed acres of available forage would equate to approximately 0.13 percent of the ROI,  
32 with a total AUM equivalent loss of 11.75 AUMs. Table 3-4 presents a breakdown of permanent  
33 loss of available forage (acres and percentage) and equivalent AUMs affected per BLM livestock  
34 grazing allotment. The permanent loss of forage would be adverse, localized, and long term.

1 Short-term local adverse impacts would be possible resulting from construction activities  
2 associated with the proposed road improvement, pipeline trenching, and assembly area  
3 construction for a total of 61 acres. Short-term impacts would include the temporary crushing or  
4 removal of vegetative cover and underlying litter, disturbance to the physical and biological soil  
5 surface, and minor compaction of the soil locally. These short-term impacts would be considered  
6 one-time effects because they would be associated with the initial construction activities of the  
7 proposed project area. The short-term loss of acres of available forage resulting from construction  
8 activities would equate to approximately 0.14 percent of the ROI, with a total AUM equivalent  
9 loss of 8.6 AUMs across all lands (IDL and BLM). The short-term loss of IDL-managed acres of  
10 available forage would equate to approximately 0.09 percent of the ROI, with a total AUM  
11 equivalent loss of 3.8 AUMs. The short-term loss of BLM-managed acres of available forage  
12 would equate to approximately 0.05 percent of the ROI, with a total AUM equivalent loss of  
13 4.8 AUMs. Table 3-3 presents a breakdown of one-time short-term loss of available forage (acres  
14 and percentage) and equivalent AUMs affected per BLM livestock grazing allotment.

15 Short-term local adverse impacts would occur as a result of engineering (dig) sites. These dig sites  
16 would rotate with each year of training, and as such would not permanently affect forage  
17 availability within the ROI. Up to 15 acres of forage (5 acres of BLM-managed land and 10 acres  
18 IDL-managed land) would be reduced annually. However, the actual impact to forage availability  
19 is likely to be much lower than the entire 15 acres based on historical training events. On average,  
20 the IDARNG affects 1 acre or less annually due to similar engineering activities (battle position  
21 and tank ditch; definition and rehabilitation requirements [**Section 2.3.2**]) within the OCTC. These  
22 short-term impacts differ from the construction activity impacts (described in the previous  
23 paragraph) because they would occur annually rather than once. The temporary loss in acres of  
24 available forage due to dig sites would equate to approximately 0.03 percent of the ROI, with a  
25 maximum AUM equivalent loss of 4.05 AUMs across all lands (IDL and BLM). The temporary  
26 loss in acres of available forage due to dig sites on IDL-managed lands would equate to  
27 approximately 0.02 percent of the ROI, with a total AUM equivalent loss of 1.07 AUMs. The  
28 temporary loss in acres of available forage due to dig sites on BLM-managed lands would equate  
29 to approximately 0.01 percent of the ROI, with a maximum AUM equivalent loss of 2.98 AUMs.  
30 Because the exact location of the dig sites is unknown due to their nature under Alternative A, the  
31 equivalent loss of AUMs was calculated for each allotment as though each one contained the dig  
32 sites. Thus, the very worst outcome was analyzed and outlined in this paragraph and in Table 3-4;  
33 at no point would any more than one 5-acre dig site in one allotment be affected on BLM-managed  
34 land.

35 Military training operations would possibly affect forage availability in the short term through  
36 vegetation crushing, removal of vegetative cover, or both. However, the impacts are impossible to  
37 quantitatively analyze due to their location (precise driving routes) being unknown. Thus, the exact  
38 livestock grazing allotments affected and the equivalent AUM loss cannot be determined. For all  
39 short-term impacts due to construction activities and military training, BMPs identified in  
40 Appendix G require reseeding with a native or desirable species seed mix and periodic rest of  
41 disturbed areas. These BMPs would be implemented to manage the potential for adverse soil and  
42 vegetation impacts and to ensure that exposed soils last less than one growing season, reducing the  
43 chance for nonnative species establishment. **Section 3.6** discusses vegetation further.

1 Proposed access limitations associated with this alternative, including the locked access gate off  
2 of Simco Road, would only be in place for the general public and would not affect permittee  
3 operations. Access to the site for livestock operations would be addressed annually through a  
4 management agreement and deconfliction meeting between the BLM, IDL, IDARNG, and  
5 permittee. Under Alternative A, none of the proposed actions would restrict the permittee or their  
6 livestock from accessing any portion of the ROI; thus, there would be no adverse effect on  
7 livestock operations or accessibility to forage. However, accessibility throughout the allotments  
8 would be improved due to road enhancements. The proposed infrastructure projects would also  
9 benefit livestock operations by reducing maintenance costs (time and resources) and protecting the  
10 water system. Therefore, short- and long-term impacts associated with enhanced infrastructure  
11 would be beneficial, but localized. **Section 2.3** contains a detailed list of infrastructure projects.

## 12 **Effects of Alternative B – Livestock Grazing**

13 The effects under Alternative B associated with accessibility to the site would be the same as  
14 Alternative A. Under Alternative B, there would be a locked gate to restrict public access.  
15 However, livestock grazing permittees would be issued a key for access. The effects under  
16 Alternative B associated with permanent loss of forage would differ from those of Alternative A  
17 due to the addition of fenced off-limits areas. A total of 42 acres of BLM-managed land would be  
18 deemed off limits and would be fenced and unavailable for livestock grazing. Using current  
19 vegetation data, it was inferred that of those 42 acres, 28 acres are currently bare ground, making  
20 the total acres of unavailable forage due to off-limits fenced areas 14 acres. All other long-term  
21 impacts listed under Alternative A (road enhancements and assembly areas) would remain the  
22 same under Alternative B. The permanent loss of acres of available forage would equate to  
23 approximately 0.28 percent of the ROI, with a total AUM equivalent loss of 19.25 AUMs across  
24 all lands (IDL and BLM). The permanent loss of IDL acres of available forage would equate to  
25 approximately 0.12 percent of the ROI, with a total AUM equivalent loss of 5.08 AUMs. The  
26 permanent loss of BLM acres of available forage would equate to approximately 0.16 percent of  
27 the ROI, with a total AUM equivalent loss of 14.75 AUMs. Table 3-5 presents a breakdown of  
28 permanent loss of available forage (acres and percentage) and equivalent AUMs affected per BLM  
29 livestock grazing allotment. The permanent loss of forage and availability of forage would be  
30 adverse, localized, and long-term.

31 The short-term one-time impacts resulting from construction activities associated with the  
32 proposed road improvement, pipeline trenching, and assembly area construction would be the  
33 same as under Alternative A. The short-term loss of acres of available forage resulting from  
34 construction activities would equate to approximately 0.14 percent of the ROI, with a total AUM  
35 equivalent loss of 8.6 AUMs across all lands (IDL and BLM). The short-term loss of IDL acres of  
36 available forage would equate to approximately 0.09 percent of the ROI, with a total AUM  
37 equivalent loss of 3.8 AUMs. The short-term loss of BLM acres of available forage would equate  
38 to approximately 0.05 percent of the ROI, with a total AUM equivalent loss of 4.8 AUMs.  
39 Table 3-3 presents a breakdown of one-time short-term loss of available forage (acres and  
40 percentage) and equivalent AUMs affected per BLM livestock grazing allotment.

41 The type and intensity of short-term annual impacts under Alternative B associated with dig sites  
42 would be similar to Alternative A, but the location and distribution of the impacts would be



1 different. Unlike Alternative A, under Alternative B the 5 acres affected by engineering (dig)  
 2 activities would be confined to specified areas within the Squaw Creek or Crater Rings allotments.  
 3 Temporary reductions in forage within the Rattlesnake Seeding would only be associated with  
 4 maneuver activities and would be less than significant. As such, the temporary reduction of  
 5 available forage would equate to approximately 0.03 percent of the ROI, with an AUM equivalent  
 6 loss of 3.23 AUMs across all lands (IDL and BLM). The temporary reduction of available forage  
 7 on IDL-managed lands would equate to approximately 0.02 percent of the ROI, with an AUM  
 8 equivalent loss of 1.07 AUMs. The temporary reduction of available forage on BLM-managed  
 9 lands would equate to approximately 0.01 percent of the ROI, with an AUM equivalent loss of  
 10 2.16 AUMs. Table 3-5 presents a breakdown of loss of available forage (acres and percentage) and  
 11 equivalent AUMs affected per BLM allotment, both temporary and permanent.

12 As listed under Alternative A, military training operations would possibly affect forage availability  
 13 in the short term through vegetation crushing, removal of vegetative cover, or both. However, the  
 14 impacts are impossible to quantitatively analyze due to their location (precise driving routes) being  
 15 unknown. Thus, the exact livestock grazing allotments affected and the equivalent AUM loss  
 16 cannot be determined. For all short-term impacts due to construction activities and military  
 17 training, BMPs identified in Appendix G require reseeding with a native or desirable species seed  
 18 mix and periodic rest of disturbed areas. These BMPs would be implemented to manage the  
 19 potential for adverse soil and vegetation impacts and to ensure exposed soils last less than one  
 20 growing season, reducing the chance for nonnative species establishment. **Section 3-6** discusses  
 21 vegetation further.

22 **Table 3-3. Short-Term Vegetation Loss and Equivalent AUMs Due to Construction**  
 23 **Activities under Alternative A and Alternative B**

Allotment	Ownership	Temporary Loss (Acres)	Temporary Loss (AUM Equivalent)	Temporary Loss (Percent Available Forage)
Rattlesnake Seeding (A)	BLM	5	0.82	0.10
Rattlesnake Seeding (B)	BLM	0	0	0
Crater Rings	BLM	2	0.47	0.06
Squaw Creek	Both	18	3.51	0.09
Simplot	IDL	36	3.84	0.23

24

1

**Table 3-4. Percent of Vegetation Loss and Equivalent AUMs Affected by Allotment under Alternative A**

<b>Allotment</b>	<b>Ownership</b>	<b>Permanent Loss (Acres)</b>	<b>Permanent Loss (AUM Equivalent)</b>	<b>Permeant Loss (Percent Available Forage)</b>	<b>Temporary Loss (Acres Annually)</b>	<b>Temporary Loss (AUM Equivalent)</b>	<b>Temporary Loss (Percent Available Forage)</b>
Rattlesnake Seeding (A)	BLM	6	0.98	0.13	5 <sup>a</sup>	0.82 <sup>a</sup>	0.10 <sup>a</sup>
Rattlesnake Seeding (B)	BLM	1.44	0.19	0.03	0	0	0
Crater Rings	BLM	0	0	0	5 <sup>a</sup>	1.18 <sup>a</sup>	0.16 <sup>a</sup>
Squaw Creek	Both	54.16	10.58	0.29	5 <sup>a</sup>	0.98 <sup>a</sup>	0.03 <sup>a</sup>
Simplot	IDL	47.6	5.08	0.32	10 <sup>a</sup>	1.07 <sup>a</sup>	0.07 <sup>a</sup>

<sup>a</sup> These are maximum acres potentially disturbed within a single allotment if all engineering activities were only located within that allotment. For example, if all activities were conducted in Squaw Creek, up to 5 acres would be affected, with 0 acre in any other BLM allotments. State lands would have up to 10 acres affected.

Note:

Rattlesnake seeding is separated into “A” and “B” to show different stock rates for each area.

2

1

**Table 3-5. Percent of Vegetation Loss and Equivalent AUMs Affected by Allotment under Alternative B**

<b>Allotment</b>	<b>Ownership</b>	<b>Permanent Loss (Acres)</b>	<b>Permanent Loss (AUM Equivalent)</b>	<b>Permanent Loss (Percent Available Forage)</b>	<b>Temporary Loss (Acres)</b>	<b>Temporary Loss (AUM Equivalent)</b>	<b>Temporary Loss (Percent Available Forage)</b>
Rattlesnake Seeding (A)	BLM	13.6	2.22	0.28	0	0	0
Rattlesnake Seeding (B)	BLM	2.14	0.28	0.05	0	0	0
Crater Rings	BLM	0	0	0	5 <sup>a</sup>	1.18 <sup>a</sup>	0.16 <sup>a</sup>
Squaw Creek	Both	59.76	11.67	0.32	5 <sup>a</sup>	0.98 <sup>a</sup>	0.03 <sup>a</sup>
Simplot	IDL	47.6	5.08	0.32	10 <sup>a</sup>	2.13 <sup>a</sup>	0.07 <sup>a</sup>

<sup>a</sup> These are maximum acres potentially disturbed within a single allotment if all engineering activities were only located within that allotment. For example, if all activities were conducted in Squaw Creek, up to 5 acres would be affected, with 0 acre in any other BLM allotments. State lands would have up to 10 acres affected).

Note:

Rattlesnake seeding is separated into “A” and “B” to show different stock rates for each area.

2

1 **3.2.2 Military Training**

2 *Affected Environment – Military Training*

3 The ROI for military use is the OCTC and the proposed project area (approximately  
4 171,000 acres). Current military training occurs exclusively within the boundary of the OCTC. Per  
5 NGR 5-3, Army National Guard (ARNG) Garrison Training Centers that are designated as  
6 Regional Collective Training Capability (RCTC) Level I must have facilities and infrastructure  
7 capacities to provide billeting and lodging to support multiple brigade-sized units, sufficient  
8 acreage to support defined maneuver areas, and live fire ranges (TC 25-8) to support individual  
9 and collective training for multiple brigades (ARNG 2015; HQDA 2016).

10 The OCTC is currently designated as an RCTC Level I Garrison Training Center. It is capable of  
11 supporting multiple brigade-sized units and associated training and is a mobilization site for the  
12 National Guard (NG) (ARNG G1/G3 2018). The IDARNG’s largest deployable unit, the  
13 116<sup>th</sup> Cavalry Brigade, was an Enhanced Separate Armor Brigade until it was redesignated as an  
14 Armored Brigade Combat Team (ABCT) in 2007 to address updated Army doctrine.

15 The OCTC provides for maneuver, aviation, and weapons training. Maneuver training is conducted  
16 on 21 identified maneuver areas outside the Impact Area (A 1-8, B 1-7, C 1-4, and D 1-2) and one  
17 inside the Impact Area (E-1). Maneuver areas are primarily outside the Impact Area, cover  
18 approximately 89,000 acres, and are used for vehicle driver familiarization, armored vehicle crew  
19 maneuver proficiency, scout squad proficiency, platoon and company-level tactics and maneuver,  
20 and other combat support training (Appendix A). Available and usable maneuver lands within the  
21 OCTC are currently limited to 35,000 acres. This training reduction is a result of BLM restrictions  
22 on maneuver training in areas of greater than 10 percent shrub cover within the OCTC, as outlined  
23 in BLM’s 2008 NCA RMP.

24 With the exception of designated artillery- and mortar-firing positions on A-8, C-1, C-2, and C-3,  
25 all weapons firing is conducted within the Impact Area to protect human safety and control the  
26 effects of training-related fires on the landscape. The Impact Area is closed to public access  
27 through an Ada County Ordinance and a 1986 Public Land Order by the USDOJ. Though the area  
28 is not fenced, there are signs every 656 feet to warn the public and troops of the danger in that  
29 area. An expanded description of the facilities and operations within the OCTC is identified in the  
30 Approval of the OCTC RPMP, modernization and infrastructure improvements, and optimization  
31 of the annual throughput of brigade-level training EA in Section 1.1 (pg. 1-1), Section 3.2.4  
32 (pg. 3-4), and Appendix B (NGB and BLM 2020).

33 *Environmental Consequences – Military Training*

34 **Issue Statement:** How would the Proposed Action affect the IDARNG’s ability to meet military  
35 training requirements?

36 **Indicators:** Meeting or not meeting training requirements and IDARNG mission (soldier  
37 proficiency goals and objectives).

1 **Significance Criteria:** Impacts to military training activities that would limit or restrict military  
2 training activities to a level that would result in soldiers or units not meeting minimum DoD  
3 training requirements or directly conflict with IDARNG mission requirements.

4 **Short Term:** One training year (federal fiscal year: October 1 to September 30)

5 **Long Term:** Greater than 1 year

6 **Region of Influence:** The ROI for military use is the OCTC and the proposed project area  
7 (approximately 171,000 acres).

#### 8 **Effects of the No Action Alternative – Military Training**

9 Under the No Action Alternative, there are no short-term adverse impacts anticipated. In contrast,  
10 long-term effects of the No Action Alternative could result in adverse impacts to military training  
11 operations, but they would be less than significant.

12 There are no short-term adverse impacts to military training operations because the planned level  
13 of use (type or intensity) for training operations within the OCTC over the next year does not require  
14 that a BCT conduct an xCTC in fewer than 30 days, which is well under the BLM authorized levels.  
15 As such, soldier proficiency goals would continue to be met without additional lands.

16 However, long-term training operations will require that BCTs conduct an xCTC in fewer than  
17 30 days. Based on the amount of available and usable maneuver training lands within the OCTC  
18 boundary, which has been reduced from 89,000 acres to 35,000 acres (61 percent reduction), the  
19 amount of available and effective maneuver training lands within the OCTC is currently  
20 insufficient and would not be in conformance with DoD Instruction Number 1215.06. Similarly,  
21 there is insufficient land within the OCTC to adequately simulate LSCO and training over realistic  
22 distances, thereby reducing National Guard BCTs' ability to fully achieve METL proficiency in a  
23 sustainable format. The only reason that long-term impacts are not significant is that units can and  
24 have separated the BCTs by conducting training operations over 30 days. However, this is not  
25 considered an optimal training practice and is in conflict with NGR 350-1, which encourages all  
26 elements of a unit to train together whenever possible. As such, long-term effects of the No Action  
27 Alternative to military training would be adverse, but less than significant.

#### 28 **Effects of Alternative A – Military Training**

29 Under Alternative A, there would be no short-term adverse impacts because near-term training  
30 would continue to meet the stated goals of the OCTC and mission of the IDARNG and DoD. In  
31 contrast, long-term impacts would be beneficial for military training because operational lands  
32 would be added, which would allow for sustainable maneuver training and conformance with  
33 military training requirements and the NCA legislation.

34 Soldier training would continue to occur at BLM authorized levels within the OCTC until the  
35 proposed project area could be authorized for access and use under a BLM ROW and long-term

1 lease agreement with IDL, resulting in no changes to short-term training activities, type, duration,  
2 or location.

3 Under Alternative A, the amount of available and effective maneuver training lands would nearly  
4 double, from 35,000 acres to roughly 63,000 acres. While the total amount of land does not fully  
5 meet military doctrine, it is sufficient for an entire BCT (no split required) to conduct an xCTC  
6 within the designated 30 days as required under DoD Instruction Number 1215.06 and in  
7 conformance with NGR 350-1. The combined area is also sufficient to adequately simulate LSCO  
8 and training over realistic distances, thereby supporting National Guard BCTs in fully achieving  
9 METL proficiency in a sustainable format.

10 Alternative A would also give training units the option to limit public access for up to 30 days  
11 annually, thereby reducing potential user conflicts with the public and increasing the safety of  
12 soldiers and the public. As such, long-term effects would be beneficial.

13 The ability to lock the Simco Road access gate would have no effect on military training activities,  
14 but controlled access to the enhanced road could result in reduced public use (**Section 3.2.3**) of the  
15 road and reduce maintenance requirements for the IDARNG. These impacts would be beneficial  
16 in the long term.

### 17 **Effects of Alternative B – Military Training**

18 Under Alternative B, the short-term effects would be the same as Alternative A. The long-term  
19 effects to military training activities associated with soldier readiness and proficiency would also  
20 be the same as Alternative A.

21 Limiting the ability of the IDARNG to restrict public access for up to 30 days during training  
22 activities would likely result in increased user conflicts and reduce safety based on current trends  
23 in the OCTC. However, because this is the same management guideline currently used for the  
24 OCTC, the impacts would be adverse, but less than significant.

25 Not allowing a lock on the Simco Road access gate would likely result in greater maintenance  
26 activities by the IDARNG for the road relative to Alternative A. While impacts would be adverse,  
27 they are less than significant.

### 28 **3.2.3 Public Access and Recreation**

#### 29 ***Affected Environment – Public Access and Recreation***

30 The ROI for public access and recreation is the proposed project area. Bureau of Land  
31 Management-managed and state-owned lands are managed under two different mandates as related  
32 to public access and use. The BLM manages public lands and subsurface estate under its  
33 jurisdiction under the 1976 FLPMA. Under FLPMA, the BLM is required to manage public lands  
34 for multiple use and sustained yield, and in a manner that “will provide for outdoor recreation and  
35 human occupancy and use” (43 U.S.C. 1701 [Sec. 102a(8)]), among other aspects defined in  
36 Section 102a. The BLM is also required to grant access to all public lands unless access has been  
37 withdrawn through a land use process (43 U.S.C. 1701 [Sec. 102a(4)]).

1 In contrast, state endowment trust lands are first and foremost to be managed by the State of Idaho  
2 under a constitutional mandate to generate maximum long-term income for public schools and  
3 other state institutions in Idaho (IDL 2021). Management activities on state endowment trust land  
4 are not intended to benefit the general public, but are directed solely to the good of the beneficiaries  
5 of the original land grants. While these lands are or have been physically accessible for public use  
6 and recreation (IDL 2021), public access is not an obligation of the state. Unlike federal lands,  
7 which are required to grant access to the public unless access has been withdrawn through a land  
8 use process, state lands may restrict public access at any time to better manage the endowment  
9 lands for the purpose they were designated.

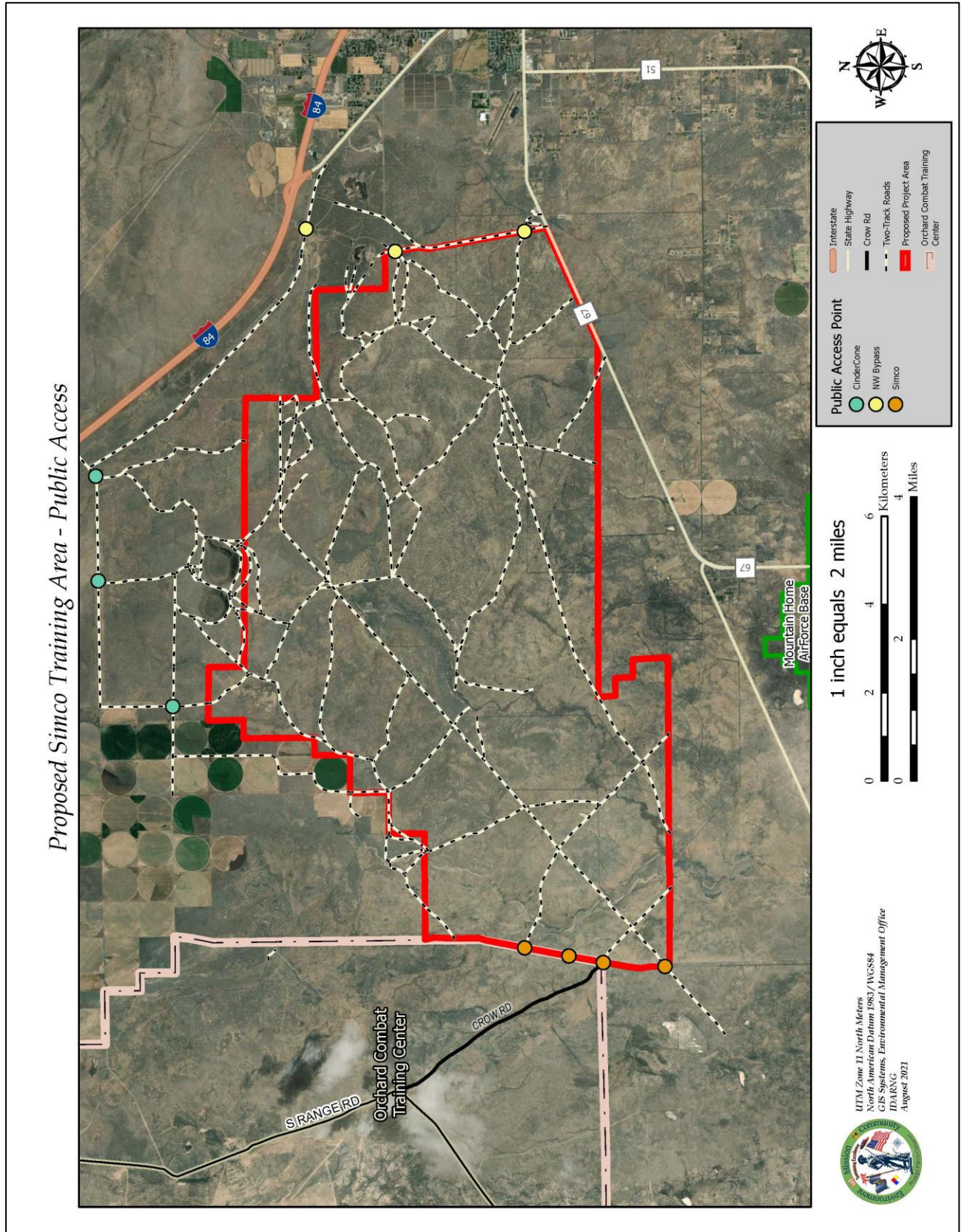
10 In general, the majority of the public use in the area originates from Ada and Elmore Counties  
11 because these are the closest major population centers to the site. The public accesses the proposed  
12 project area through three primary access corridors: Simco Road (west), Cinder Cone Road (north),  
13 and the NW Bypass Road (east) (Map 10). There are no authorized public access points from the  
14 south.

15 The Simco Road corridor has four primary access points (Map 10). These access points range from  
16 30.0 miles to 33.5 miles from the city of Boise, and 14.2 miles to 17.7 miles from Mountain Home.  
17 The Cinder Cone Road corridor has three primary access points. These access points range from  
18 28.3 miles to 30.5 miles from the city of Boise, and 7.5 miles to 9.7 miles from Mountain Home.  
19 The NW Bypass Road corridor has three primary access points. These access points range from  
20 36.4 miles to 40.1 miles from the city of Boise, and 1.94 miles to 2.7 miles from Mountain Home.  
21 A total of 10 different locations allow public access to 84.4 miles of unmaintained two-track road  
22 paths throughout the ROI (Map 10).

23 The BLM and IDL have never conducted any formal public access or use surveys in the area, so  
24 there is no quantitative baseline for use. However, a general description of historical and current  
25 public access trends is identified based on 3 years of directed surveys by Ecosystem Science  
26 between 2015 and 2017 (Ecosystem Sciences 2017a); 4 years of general wildlife surveys  
27 conducted by the IDARNG staff from 2015 to 2018 (IDARNG 2018a); 29 years of vegetation  
28 surveys (range condition trend analysis data control points) conducted in the area from 1991 to  
29 2020 (IDARNG 2021); and personal observations by IDARNG staff who have been conducting  
30 surveys in the area for more than 20 years.

31 The proposed project area has historically had very little public access and recreation, with the  
32 exception of the northeastern and eastern portions of the site adjacent to the rock quarry and  
33 accessed via the NW Bypass Road corridor. It is assumed, based on the proximity to Mountain  
34 Home, that the primary users are from that area. The primary public uses observed in the area are  
35 target shooting, hunting, off-road driving, permitted seed collection, and illegal dumping. The  
36 roads in this portion of the proposed project area are well used: they are well compacted, contain  
37 no vegetation, and have a clearly defined path. This area had the highest concentration of shooting  
38 and illegal dumping observed in the proposed project area.

39 In contrast, the southern, western, and central portions of the proposed project area have  
40 considerably less public access and use. The access points to the site on the west are more remote  
41 than those in the east and north, and the two-track roads are rocky and have minimal signs of use.  
42 There were limited shooting or dumping sites observed in the area, and those that were observed  
43 were either on or adjacent to Simco Road.



1  
 2 **Map 10. Public Access Map of the Proposed Project Area**



1 **Environmental Consequences – Public Access and Recreation**

2 **Issue Statement:** How would the Proposed Action (training activities and changes to  
3 infrastructure) affect public access and use?

4 **Indicators:** Number of training days resulting in restrictions or limitations to public access, and  
5 the number of miles of available roads.

6 **Significance Criteria:** Restricting public access to BLM- or IDL-managed lands in excess of the  
7 authorization.

8 **Short Term:** One calendar year

9 **Long Term:** Greater than 1 year

10 **Region of Influence:** The ROI for public access and recreation is the proposed project area.

11 **Effects of the No Action Alternative – Public Access and Recreation**

12 Under the No Action Alternative, there would be no short-term effects on public access because  
13 current uses would continue at present levels on BLM- and IDL-managed lands. It is assumed that  
14 public access to the site would continue in the future. Based on local and regional population  
15 increases, access and use (both legal and illegal activities) of the site are likely to increase over  
16 time. Based on current trends in Ada and Elmore Counties, increased public use of an area is likely  
17 to result in more user conflicts. Although increased conflicts would be adverse, they are not likely  
18 to result in any future access restriction and would be less than significant.

19 **Effects of Alternative A – Public Access and Recreation**

20 Under Alternative A, short-term impacts would be less than significant. Military training activities  
21 would continue to be limited to the OCTC until initial infrastructure to support training operations  
22 are in place (which would take more than 1 year). Because the proposed 30-day restriction to the  
23 area is associated with military training activities, there would no effect on public use or access on  
24 BLM- or IDL-managed lands within the ROI for the first year. Furthermore, construction-related  
25 BMPs/SOPs would be implemented to ensure construction sites provide adequate visual and public  
26 safety in the event public use occurs within proximity of the construction activities.

27 Long-term impacts associated with restricted public access to the 13,331 acres of BLM/BOR lands  
28 managed by BLM for up to 30 days would be adverse, but spatially and temporally limited, and  
29 less than significant. The proposed project area makes up less than approximately 2 percent of the  
30 NCA’s 483,700 acres of publicly accessible lands (BLM 2008b), and approximately 1 percent of  
31 Elmore County’s 1.3 million acres of federal lands (Elmore County 2015). The ROI currently has  
32 permanent public access restrictions on the IDARNG’s 55,000-acre Impact Area in the OCTC,  
33 which is approximately 11 percent of the NCA (BLM 1986), and temporary restrictions (fewer  
34 than 30 days) on 13,331 acres in the proposed project area. This would be a total of 68,331 acres  
35 (approximately 14 percent of the proposed project area and NCA and approximately 13 percent of

1 only the NCA) closed to public access for up to 30 days annually. However, access to the proposed  
2 project area could only be restricted if the BLM authorizes it, and only for up to 30 days annually,  
3 or approximately 8 percent of the year. In most years, public access would not be limited at all, or  
4 only limited from portions of the area. As such, restricting public access would be adverse and  
5 localized.

6 Similarly, permanently closing 1 of 10 access points to the proposed project area would be spatially  
7 limited and less than significant. There are three other publicly accessible access points along  
8 Simco Road and within 3.5 miles, with the closest one less than 0.25 mile to the north. Access to  
9 the site for BLM, IDL, Tribes, Idaho Power Company, and all permitted users would be maintained  
10 year round.

11 Public access and recreation on IDL parcels in the ROI is limited and is an ancillary function (the  
12 land's primary function and use is to create revenue for the endowment for which it was set aside).  
13 Military training activities on the proposed project area would provide increased revenue for the  
14 state endowment; however, this would require the area to be closed (public access would not be  
15 allowed for the safety of both the public and soldiers training in the area). While closure of the  
16 IDL parcels could represent an adverse impact to current public access, this is only a perceived  
17 impact because the area is not designated for this use. As such, precluding an ancillary use (public  
18 access) for the intended use of the lands would not constitute an adverse impact to public access  
19 or use of the IDL-managed lands within the ROI, and public access impacts would be less than  
20 significant.

21 With local and regional population increases, long-term impacts associated with increased access  
22 and use (both legal and illegal activities) of the site could result in increased user conflicts. Based  
23 on the additional use by the IDARNG, impacts could be greater in intensity due to the potential  
24 conflict with public access and use when compared to the No Action Alternative, and public access  
25 and use impacts would be less than significant.

26 **Effects of Alternative B – Public Access and Recreation**

27 Under Alternative B, the short-term effects would be similar to Alternative A. However, there  
28 would be no access restrictions for the public and no closure of any access points. As such, the  
29 impacts under Alternative B to public access would be less than Alternative A, and less than  
30 significant. Under Alternative B, the long-term effects related to increased population growth and  
31 increased user conflicts between military operations and public use within the ROI would be  
32 greater than Alternative A because there would be no localized restrictions on public access during  
33 training operations, but these would still be less than significant.

34 **3.3 AIR QUALITY AND CLIMATE CHANGE**

35 **3.3.1 Affected Environment – Ambient Air Quality**

36 The ROI for ambient air quality includes Ada and Elmore Counties because the proposed project  
37 area access road crosses from Ada into Elmore County. Based on review of two weather stations  
38 in the area, prevailing winds at the proposed project area change depending on the time of year.

1 Generally, average wind speeds range from 7 to 10 miles per hour (excluding gusts) and typically  
2 originate out of the south/southwest in the spring and summer and south/southeast in the fall and  
3 winter (Tinkle 2018).

4 U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality  
5 Standards (NAAQS) pursuant to Sections 109 and 301(a) of the Clean Air Act (CAA). These  
6 standards, expressed in micrograms per cubic meter, establish safe concentration levels for each  
7 criteria pollutant. National Ambient Air Quality Standards have been set for six pollutants:  
8 particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>),  
9 ozone (O<sub>3</sub>), and lead (Pb) (EPA 2015a).

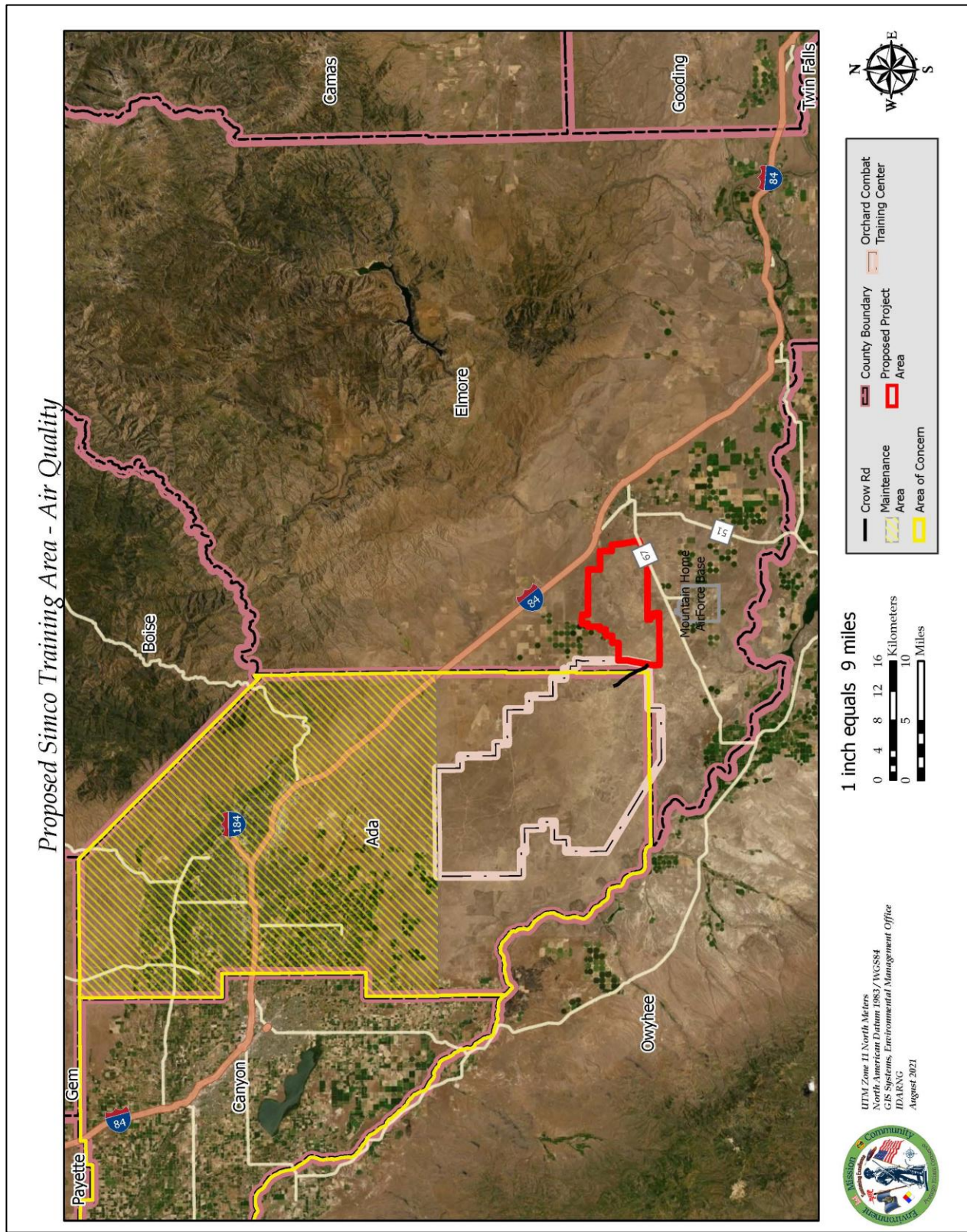
10 Based upon levels of air pollutants, EPA classifies geographic areas as attainment or nonattainment  
11 areas. A geographic area that meets or has pollutant levels below the NAAQS is called  
12 an attainment area. An area with persistent air quality problems is designated a nonattainment area.  
13 This means that the area has violated federal health-based standards for outdoor air pollution. Each  
14 nonattainment area is declared for a specific pollutant. Nonattainment areas for different pollutants  
15 may overlap each other or share common boundaries.

16 Each state is required to demonstrate compliance with NAAQS and other components of the CAA  
17 through a State Implementation Plan for each area and pollutant that is designated as  
18 nonattainment. The Implementation Plan for the Control of Air Pollution in the State of Idaho  
19 (EPA 2015b) describes the nonattainment and air quality maintenance plans within Idaho.

20 In addition to areas classified as attainment and nonattainment, some areas are described as  
21 maintenance areas. Maintenance areas are those geographic areas that were classified as  
22 nonattainment, but are now consistently meeting the NAAQS.

23 Currently, there are four geographical areas that are classified as nonattainment or maintenance  
24 areas in Idaho (DEQ 2018). The North Ada County (Maintenance Area) – Carbon Monoxide and  
25 PM10 is the closest Maintenance Area to the ROI. North Ada County is a limited maintenance  
26 area for CO. North Ada County is Idaho’s only designated CO maintenance area (Map 11). Mobile  
27 and area source emissions are the two major sources of CO. North Ada County is also a  
28 maintenance area for PM10. The main sources of PM10 are fugitive road dust and agriculture  
29 (DEQ 2018).

30 As indicated on Map 11, the proposed project area and OCTC are located in southern Ada County  
31 and Elmore County, outside of the North Ada County Maintenance Area. The primary contributors  
32 to air quality degradation in Ada and Elmore Counties outside of the Maintenance Area (ROI) are  
33 agriculture (for example, crop burning), wildland fire, and fugitive dust from agricultural activities.



1  
 2 **Map 11. Idaho Nonattainment Areas**  
 3 *Source: DEQ 2018*

1 **3.3.2 Affected Environment – Climate Change**

2 The ROI for climate change includes the State of Idaho. The Army issued a policy *Consideration*  
 3 *of Greenhouse Gas Emissions and the Effects of Climate Change in Army National Environmental*  
 4 *Policy Act Reviews (2021)* providing guidance on the inclusion of GHG emissions and climate  
 5 change, as well as social costs, as part of the environmental baseline for NEPA analysis prepared  
 6 in accordance with 32 CFR 651, *Environmental Analysis of Army Actions*.

7 Greenhouse gases are compounds that may contribute to accelerated climate change by altering  
 8 the thermodynamic properties of the earth’s atmosphere. Greenhouse gas emissions consist of  
 9 carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, and fluorinated gases (EPA 2021a). Under the EPA  
 10 Mandatory Reporting Rule, facilities that emit 25,000 metric tons or more per year of carbon  
 11 dioxide equivalent (CO<sub>2</sub>e) emissions must submit annual reports to the EPA (EPA 2009).

12 This EA looks at GHG emissions as a category of air emissions. It also looks at issues of  
 13 temperature and precipitation trends (climate change). This EA identifies the GHG emissions of  
 14 the Proposed Action and compares this to regional emissions.

15 According to the IDARNG’s 2017 (most recently available) air emissions inventory, approximately  
 16 21,355 metric tons of CO<sub>2</sub>e per year are emitted from mobile sources within Gowen Field and the  
 17 OCTC (ERG 2017). Table 3-6 lists the combined actual emissions generated by mobile sources at  
 18 Gowen Field and the OCTC and stationary sources at the OCTC. Current GHG emissions  
 19 associated with the proposed project area have not been studied; however, they are assumed to be  
 20 minor because the primary contributors are the trucks used to ship livestock to and from the area,  
 21 vehicles used to manage livestock grazing, indirect energy use associated with the water  
 22 infrastructure for livestock grazing, and occasional public vehicles in the area. No major source of  
 23 GHG emitters are located in the proposed project area.

24 **Table 3-6. Emissions at Gowen Field and OCTC Emissions in Tons Per Year**

<b>Pollutant</b>	<b>Actual Emissions</b>	<b>Actual Stationary Emissions from OCTC</b>
CO	144	0.43
NO <sub>x</sub>	275	0.9
PM10	27.2	0.07
PM2.5	26.4	0.07
SO <sub>2</sub>	5.96	0.03
VOC	24.4	4.42
HAP (Total)	9.07	0.1
CO <sub>2</sub>	19,974	862
CH <sub>4</sub>	0.27	0.01
N <sub>2</sub> O	7.49	0.002
<b>Total CO<sub>2</sub> equivalent</b>	<b>20,493.79</b>	<b>862</b>

Source: ERG 2017. Notes:

CH<sub>4</sub> = methane

NO<sub>x</sub> = nitrogen oxide

HAP = hazardous air pollutant

VOC = volatile organic compound

1 The proposed project area is located approximately 2 miles west of Mountain Home, where the  
2 average high temperature is 93°F in the hottest month (July), and the average low temperature is  
3 22°F in the coldest month (January). Mountain Home has average annual precipitation of  
4 10.55 inches per year. The wettest month of the year is December with an average rainfall of  
5 1.56 inches (usclimatedata.com 2021).

6 The climate of Idaho is changing. The state has warmed by 1°F to 2°F in the last century.  
7 Throughout Idaho, snowpack is melting earlier in the spring and water flow in streams from  
8 meltwater is decreasing in the summer. Warmer winters and declining snowpack have increased  
9 drought conditions in the summer, which can increase the frequency and severity of wildland fires.  
10 In the coming decades, the changing climate is likely to increase drought, harm ecosystems, disrupt  
11 fishing and farming, and increase some risks to human health. Drier conditions and more frequent  
12 wildland fires increase the potential for expanded desert landscapes in southern Idaho (EPA 2016).

### 13 **3.3.3 Environmental Consequences – Air Quality and Climate Change**

14 **Issue Statement:** How would military training activities in the proposed project area affect air  
15 quality relative to Idaho Department of Environmental Quality (DEQ) standards?

16 **Indicators:** Generation of fugitive dust and GHGs from training and support vehicles.

17 **Significance Criteria:** Levels of air pollutants generated from training and support vehicles that  
18 exceed the NAAQS or result in nonattainment classification and exceed the recommended level  
19 for GHG quantification the EPA has identified for the ROI would be considered significant.

20 **Short- and Long-term Effects:** Short- and long-term effects from fugitive dust and vehicle  
21 emissions from industrial activities, existing military training, and public transportation and  
22 recreation in the area would continue to increase at current rates.

23 **Local and Landscape:** Adverse air quality impacts would be at the local scale with particulate  
24 and emissions diluting at the landscape scale. At current levels these impacts would not exceed the  
25 NAAQS.

26 **Region of Influence:** The ROI for ambient air quality includes Ada and Elmore Counties.

27 Alternatives A and B both address short- and long-term impacts.

### 28 ***Effects of the No Action Alternative – Air Quality and Climate Change***

29 Selecting the No Action Alternative would result in no changes in air quality. This alternative  
30 involves maintaining existing environmental conditions through current operational controls.  
31 Because the number and type of activities would remain consistent with current levels under the  
32 No Action Alternative, IDARNG would continue its current use of fossil fuels for mobile and  
33 temporary sources, resulting in minor impacts due to similar levels of emissions of both criteria  
34 pollutants and GHGs.

1 ***Effects of Alternative A – Air Quality and Climate Change***

2 Under Alternative A, impacts from road construction activity and infrastructure improvements  
3 would be short term, localized, and adverse, but less than significant. Long-term impacts from  
4 seasonal training activities would also be adverse, localized, and less than significant.

5 Adverse air quality impacts during project construction activities includes the effects of  
6 construction equipment operation (CO<sub>2</sub>), worker transportation vehicles, and fugitive dust. These  
7 impacts would occur locally, be short term, and be primarily associated with road improvements  
8 and installation of infrastructure protection. Operation of heavy construction equipment and the  
9 additional worker trips to the area would increase CO<sub>2</sub> emissions locally for the construction  
10 period, which is expected to last less than 2 months. All construction equipment (such as vehicles  
11 and generators) will meet EPA emissions standards depending on the engine type (spark-ignition  
12 or compression-ignition) and model year of the equipment used (40 CFR 1039, 40 CFR 1048).  
13 Therefore, CO<sub>2</sub> emissions will be within federally permitted levels and less than significant.

14 It is assumed that the majority of the construction work would occur in the late summer and fall  
15 when soils are dry, which will result in generation of fugitive dust. Best management practices  
16 such as applying water to the work area will help manage fugitive dust, but it would still be  
17 produced throughout the construction process. Because this work would occur in late summer and  
18 fall, prevailing winds will primarily be out of the south-southeast. Therefore, fugitive dust from  
19 construction activities would be carried primarily to the north-northwest and likely deposited in  
20 irrigated farmlands located just north of the ROI, away from the city of Mountain Home and houses  
21 located to the east. During periods of north-northwest prevailing winds, fugitive dust from  
22 construction activities could be carried to the south-southeast. As noted, BMPs would minimize  
23 offsite generation of fugitive dust during construction activities in accordance with Idaho  
24 Administrative Code Chapter 58-650, *Rules for Control of Fugitive Dust*. These adverse impacts  
25 would be localized, short term, and less than significant.

26 Following road improvements, beneficial long-term impacts would result from covering existing  
27 unimproved roads with 3-minus gravel road surface. This would reduce fugitive dust from military  
28 activity in the ROI.

29 Training activities from implementation of Alternative A would result in the localized generation  
30 of fugitive dust and vehicle emissions during personnel and heavy-vehicle training movements.  
31 This increase in fugitive dust would be adverse and occur annually but for a limited amount of  
32 time, lasting from May through October. Fugitive dust produced from driving unimproved roads  
33 in the proposed project area would increase because the area currently experiences little  
34 heavy-vehicle traffic.

35 Fugitive dust production from overland travel would result from impacts to the vegetation  
36 (**Section 3.5**) protecting the soil surface. Following vegetation removal, the likelihood of wind  
37 erosion and production of fugitive dust increases. The Center for Environmental Management of  
38 Military Lands (CEMML) conducted a study of the impacts of tracked vehicles on plant  
39 community characteristics on the OCTC (CEMML 2013). Results indicate that impacts to  
40 shrubland and native vegetation and groundcover become more severe and persistent with an

1 increasing number of tracked vehicle passes (CEMML 2013). In addition, impacts to soil stability  
2 are greater in the short term (1 to 3-5 years) following tracking. However, adverse impacts to soil  
3 structure in grasslands that have been previously disturbed, which are abundant in the ROI, did not  
4 appear to increase significantly with increasing tracking intensity relative to other community  
5 types. As such, these areas are better suited for assembly areas relative to other community types  
6 within the area (CEMML 2013). Tracked vehicles may produce fugitive dust when driving  
7 overland during training maneuvers when soils are dry. These adverse impacts are anticipated to  
8 be moderate but less than significant because the majority of the disturbance would occur in  
9 previously disturbed areas with a high number of invasive species. Furthermore, proposed training  
10 activities at the proposed project area would be an extension of existing training activities  
11 comparable in type, quantity, and duration as currently used at the OCTC and, as such, would be  
12 distributed over a larger area than under the No Action Alternative.

13 The primary producers of fugitive dust in the ROI (Ada and Elmore Counties) are farming  
14 practices, including plowing and weeding farmland, and wildland fire that removes vegetation and  
15 exposes the soil surface to wind erosion. These are both reoccurring long-term processes that  
16 generate large amounts of fugitive dust on a landscape scale. Active farmland in Ada and Elmore  
17 Counties in 2017 was estimated at 112,370 and 358,454 acres, respectively (USDA 2012). The  
18 fugitive dust from plowing, disking, and planting nearly 500,000 acres of farmland annually would  
19 likely be much greater than the dust generated from operating military vehicles for 30 days  
20 annually in the proposed project area that consists of previously disturbed rangeland. The proposed  
21 project area represents roughly 6 percent of the farmland in the ROI. Based on this information,  
22 fugitive dust generated from training activities when compared with farming dust generation  
23 would be adverse but localized, and less than significant.

24 Greenhouse gas generation during construction would be limited to the use of motorized  
25 equipment associated with construction of infrastructure on the proposed project area. The  
26 estimated construction timeframe is 40 workdays. Emissions of CO<sub>2</sub> from construction equipment  
27 were estimated using EPA's online Greenhouse Gas Equivalencies Calculator (EPA 2021b). Total  
28 hours or miles for each piece of equipment to be used in the analysis are as follows: 4 work trucks  
29 (320 hours), 1 grader (15 hours), 1 backhoe (40 hours), 2 generators (20 hours), delivered materials  
30 (40 miles roundtrip and 22 truckloads = 880 miles). Estimated emissions of CO<sub>2</sub>e during  
31 construction and infrastructure improvements would be approximately 3.54 metric tons.  
32 Compared to current levels of CO<sub>2</sub>e emissions in the ROI, implementation of the Proposed Action  
33 would contribute an additional 0.02 percent CO<sub>2</sub>e. Contributions of CO<sub>2</sub>e emissions from this  
34 Proposed Action would fall below the EPA's annual 25,000 metric tons reporting requirement.  
35 Adverse impacts to air quality from GHG emissions would be less than significant.

36 According to the most recently available IDARNG air emissions data in 2017, mobile CO<sub>2</sub>  
37 emissions at Gowen Field and the OCTC are estimated at 19,972 metric tons per year (Table  
38 3-6.6). Proposed training activities at the proposed project area would be an extension of existing  
39 training activities comparable in type, quantity, and duration as currently used at the OCTC.  
40 Therefore, mobile CO<sub>2</sub> emission estimates provided for the OCTC may be reasonably assumed to  
41 occur from Alternative A. Thus, while road travel time would be slightly longer to access the  
42 proposed project area, mobile emissions would likely be at or near 20,000 tons per year, which is



1 below the EPA’s annual reporting limits. As such, adverse impacts to GHG emission associated  
2 with global climate change would not be considerable and impacts would be less than significant.

3 Global climate change associated with increased GHG emissions would have a less than significant  
4 effect on the Proposed Action (Alternative A). Based on the location of the area, impacts from  
5 climate change would likely be associated with increased fuels (wildland fire) and the potential for  
6 flooding events. **Section 3.6.3** outlines impacts from wildland fire, which would be less than  
7 significant. Because there is no infrastructure present and training events would not occur during  
8 flood events because soils would be saturated, impacts would be localized and less than significant.

### 9 *Effects of Alternative B – Air Quality and Climate Change*

10 The effects under Alternative B would be the same as Alternative A. Changes in public access  
11 restrictions and dig site locations would not result in a measurable impact to air resources or global  
12 climate change.

## 13 **3.4 NOISE**

14 Human response to noise varies depending on the type and characteristics of the noise, distance  
15 between the noise source and the receptor, receptor sensitivity, and time of day. The military noise  
16 environment consists primarily of three types of noise: (1) transportation noise from aircraft and  
17 vehicles, (2) impulsive noise from large caliber weapons firing and demolition operations, and  
18 (3) noise from firing at small-arms ranges.

19 The IDARNG’s State Operational Noise Management Plan (SONMP) is the primary tool used to  
20 inventory and analyze noise impacts and land use compatibility on and around military training  
21 facilities. The SONMP includes noise contour footprints associated with operations, taking into  
22 account both location and intensity. Management practices are then implemented to isolate and  
23 minimize noise based on findings within the SONMP (ACHPPM 2006).

24 The Army considers the land areas with noise-sensitive land uses that are exposed to generally  
25 unacceptable noise levels. Army Regulation 200-1 defines land use compatibility concerning  
26 environmental noise for Army activities. Three noise zones are defined in the regulation:

- 27 • Zone I (compatible): Housing, schools, medical facilities, and other noise-sensitive land uses  
28 are compatible with noise levels in the zone (all areas not contained within Zone II or Zone III).
- 29 • Zone II (normally not recommended): Noise-sensitive land uses (for example, housing,  
30 schools, and medical facilities) are not recommended in this zone unless measures have been  
31 taken to attenuate interior noise levels.
- 32 • Zone III (never recommended): Noise-sensitive land uses (for example, housing, schools, and  
33 medical facilities) are never recommended in this zone.

34 One of the metrics the Army uses to quantify the noise environment at Army installations is the  
35 Day-Night Average Sound Level (DNL). The DNL represents sound levels measured by totaling

1 and averaging levels during a 24-hour period. A penalty of 10 decibels (dB) is assigned to noise  
 2 events occurring between 10:00 PM and 7:00 AM, which compensates for lower nighttime  
 3 background noise levels and increased annoyance associated with events occurring at night.

4 The DNL is a useful descriptor for noise because it averages continuous noise, such as from a busy  
 5 highway, and it measures total sound energy over a 24-hour period. Thus, the DNL effectively  
 6 identifies a noise dose for a day. The DNL is used to assess aircraft noise and blast noise (large  
 7 caliber weapons and demolition noise). The other metric used in defining noise zones is peak  
 8 decibel (dBP). dBP is used to define the small-arms noise zones.

9 Army Regulation 200-1 defines noise zones. In accordance with AR 200-1, noise-sensitive land  
 10 uses, such as housing, schools, and medical facilities, are acceptable within the Land Use Planning  
 11 Zone (LUPZ) and Noise Zone I, normally not recommended in Noise Zone II, and not compatible  
 12 in Noise Zone III (Army 2007). Table 3-7 lists the land use planning guidelines.

13 **Table 3-7. Land Use Planning Guidelines (AR 200-1)**

Noise Zone	Noise Limits			Noise-Sensitive Land Use
	Aviation DNL (dB)	Impulsive DNL (dB)	Small-Arms Peak (dB)	
LUPZ	60 to 65	57 to 62	N/A	Generally Compatible
I	< 65	< 62	< 87	Generally Compatible
II	65 to 75	62 to 70	87 to 104	Generally Not Compatible
III	> 75	> 70	> 104	Not Compatible

Notes:

< = less than

> = greater than

N/A = not applicable

14 Average noise levels may be the best tool for long-term land use planning, but they may not  
 15 adequately assess the probability of community annoyance. In many instances, complaints are  
 16 registered from areas where the noise zones indicate land use compatibility. Noise complaints from  
 17 impulsive noise, often referred to as blast noise, typically are attributable to a specific event rather  
 18 than annual average noise levels. Peak levels are useful for estimating the risk of receiving a noise  
 19 complaint from blast noise because they correlate with the receiver’s perception of the sound.  
 20 Table 3-8 lists the Army’s complaint risk guidelines.

1

**Table 3-8. Complaint Risk Guidelines**

<b>Perceptibility<sup>a</sup></b>	<b>dB Peak</b>	<b>Risk of Receiving Noise Complaints</b>
May Be Audible	< 115	Low
Noticeable, Distinct	115 to 130	Moderate
Very Loud, May Startle	> 130	High

<sup>a</sup> Perceptibility is subjective. The classifications are based on how a typical person might describe the event.

2 **3.4.1 Affected Environment – Noise**

3 The ROI for noise is outlined in the site-specific noise study conducted by the U.S. Army Public  
4 Health Center in 2018 for the majority of the ROI area (APHC 2018) (Appendix I). This area  
5 includes the OCTC and proposed project area, but also discusses effects to and from the Mountain  
6 Home AFB, small-arms range, and city of Mountain Home. The existing noise-generating  
7 activities within the OCTC include small arms, large caliber weapons and demolition, and both  
8 fixed and rotor-wing aviation (ACHPPM 2006, Appendix I).

9 The primary noise-generating activities within the ROI are associated with livestock management  
10 activities (transportation); gravel pit operations (heavy equipment operation); small-caliber  
11 recreational shooting activities (target shooting and hunting); aviation training activities (fixed and  
12 rotor-wing) from Mountain Home AFB; military training activities within the OCTC; a small-arms  
13 training range (small-caliber, 20-millimeter [mm] or smaller) for Mountain Home AFB; and  
14 vehicle traffic on Interstate 84, Simco Road, State Highway 67 (aka Airbase Road), and the NW  
15 Bypass Road (Map 12).

16 The four closest noise-sensitive receptors to the proposed project area are identified on Map 12,  
17 with the linear distance to each source identified in Table 3-9. Noise receptor 2 is the closest  
18 receptor and includes seven residential homes, industrial and agricultural sites, and the  
19 Cornerstone Apostolic Church. The closest structure to the proposed project area boundary is  
20 approximately 1,270 linear feet (0.24 mile) from the southeastern corner. There is another  
21 residential and agricultural cluster 0.45 mile to the east of receptor 2, and the Mountain Home  
22 Municipal Airport is 0.65 mile to the northeast.

23 Noise receptor 3 is a group of homes roughly 1.1 miles from the southern boundary of the proposed  
24 project area, and directly adjacent to (south of) the Mountain Home AFB small-arms training range  
25 (small-caliber, 20-mm or smaller). Noise receptor 1 is a small neighborhood with eight homes  
26 roughly 4.5 miles to the northwest of the site. The OCTC is directly west of this receptor, with  
27 Range 10 at 3.3 miles. Noise receptor 4 is the eastern boundary of the city of Mountain Home. For  
28 the purposes of this report, we addressed the small residential area west of Mountain Home and  
29 the Municipal Airport with noise receptor 2. The western residential boundary was used as the  
30 closest point for distance to the source.

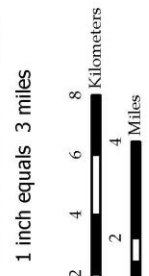
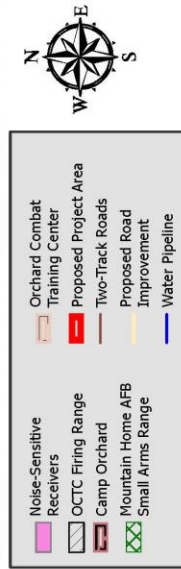
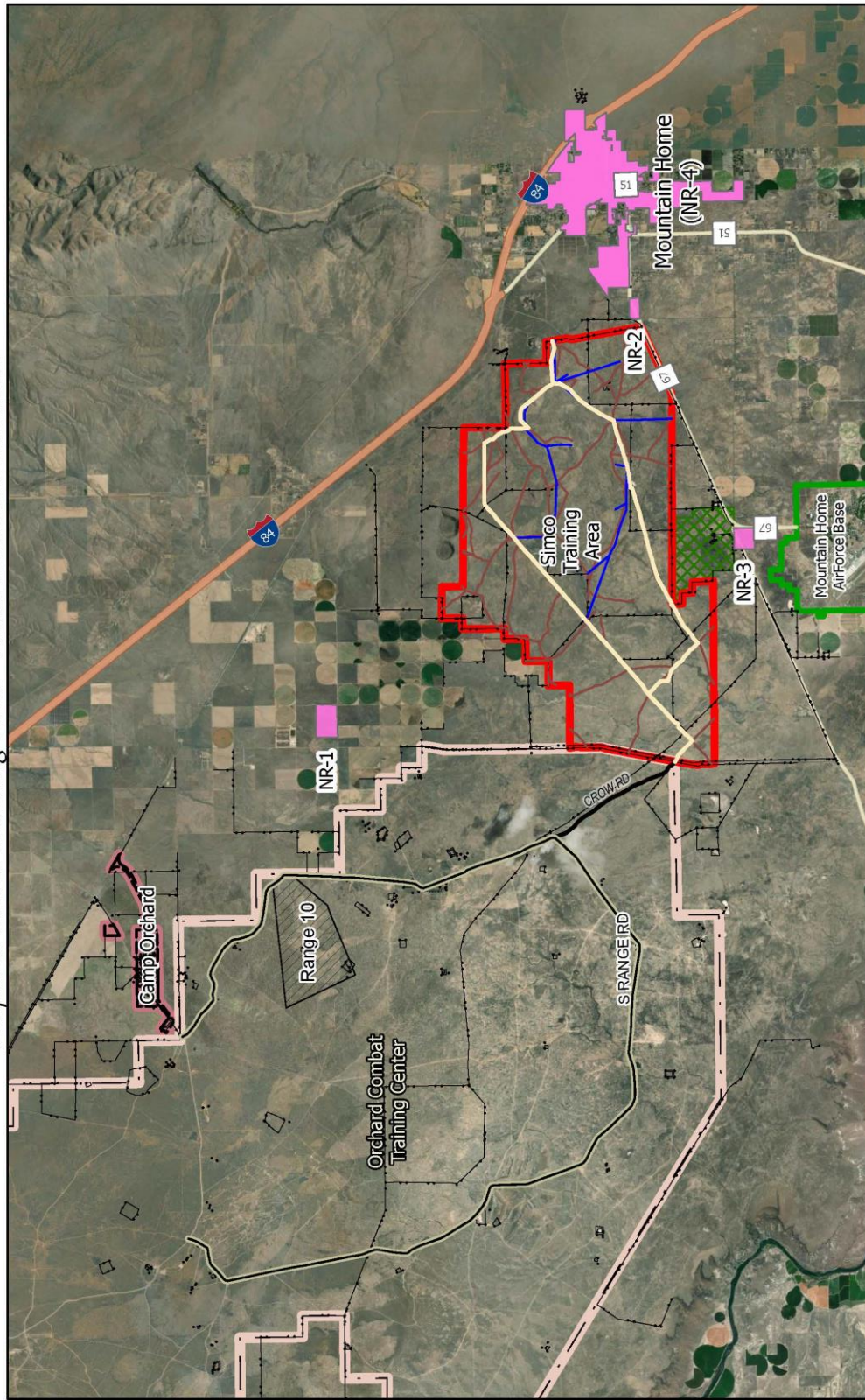
**Table 3-9. Source/Receptor Distance Matrix**

<b>Source</b>	<b>Receptor 1</b>	<b>Receptor 2</b>	<b>Receptor 3</b>	<b>Receptor 4</b>
<b>Mountain Home AFB</b>	59,100	28,810	1,200	36,500
<b>Mountain Home AFB – Small-Arms Range</b>	44,130	24,706	120	28,880
<b>OCTC Range 10</b>	17,578	82,037	69,096	82,735
<b>Proposed Project Area</b>	17,040	1,270	6,065	11,930

Note:

Distance is recorded as linear feet.

Proposed Simco Training Area - Noise-Sensitive Receivers



UTM Zone 11 North Meters  
 North American Datum 1983 / WGS84  
 GIS Systems, Environmental Management Office  
 IDARNG  
 August 2021

1  
 2 **Map 12. Noise-Sensitive Receivers within the ROI**

1 **3.4.2 Environmental Consequences – Noise**

2 **Issue Statement:** How would military training activities conducted within the proposed project  
3 area affect ambient noise levels and local receptors?

4 **Indicators:** Change in ambient noise levels (decibels), and the number and distance to local  
5 receptors.

6 **Significance Criteria:** Impacts from military training activities that exceed existing noise levels  
7 from military training operations in the area.

8 **Short Term:** During training or construction activities (1 year)

9 **Long Term:** Greater than 1 year

10 **Region of Influence:** The ROI for noise includes the OCTC and proposed project area, but also  
11 discusses effects to and from the Mountain Home AFB, small-arms range, and city of Mountain  
12 Home.

13 ***Effects of the No Action Alternative – Noise***

14 Implementation of the No Action Alternative would have no effect on the existing noise  
15 environment within the ROI. Existing noise sources, including military operations from the OCTC,  
16 Mountain Home AFB, and the small-arms shooting range, would continue under current  
17 conditions at current locations and levels.

18 ***Effects of Alternative A – Noise***

19 Under Alternative A, short- and long-term impacts to noise within the ROI would be adverse, but  
20 less than significant and localized spatially and temporally. Impacts to noise receptors would be  
21 associated with construction activities in the short term and maneuver training activities in the long  
22 term. Proposed maneuver activities would fall within the existing noise contours for the OCTC,  
23 i.e., proposed sources would not exceed existing levels.

24 Noise-generating sources during construction and infrastructure activities would be associated  
25 with standard construction equipment and involve grading, placement of road mix, and fence  
26 construction or demolition. This work would require the use of graders, dump trucks, and post  
27 pounders. Peak noise levels within 50 feet of the construction or infrastructure protection sites  
28 could exceed 100 A-weighted decibels (dBA). However, based on the acoustic principle of  
29 doubling or halving, this level would drop below 50 dBA at a distance of 0.5 km (0.31 mile). Given  
30 the distance between proposed construction activities and receptors (with all but two structures or  
31 receptors occurring more than 2.0 miles from the proposed construction footprint), coupled with  
32 the short duration of these activities conducted during normal business hours, construction noise  
33 impacts are considered to be less than significant.

34 Noise-generating sources during operational training activities would include company-on-company  
35 maneuver training exercises (vehicles), as well as training exercises that incorporate use of blank

1 ammunition: .50-caliber and below, 40-mm training grenades (inert), and weapons simulators  
2 (multiple independent re-entry vehicle). Maneuver-based noise impacts from ground vehicles would  
3 be similar to those identified for construction activities previously discussed. Given the distance  
4 between proposed training activities and receptors (with all but two structures or receptors occurring  
5 greater than 0.5 mile from the proposed training), coupled with the short duration of these activities,  
6 noise impacts associated with maneuver activities would be less than significant. In addition, there  
7 would be no increase in noise from flights (fixed or rotor-wing) over the proposed project area.  
8 Current flight paths and the number of overflights in the ROI would not change from current  
9 conditions.

10 Maneuver exercises may incorporate the use of blank ammunition. The loudest noise source  
11 associated with military training activities within the proposed project area would be a .50-caliber  
12 blank. A live M2.50-caliber machine gun has impulse noise of 161 dBP (APHC 2018). Blanks  
13 generally emit about 80 percent of the noise (dB) emitted by a live round (General  
14 Dynamics 2021). Based on the acoustic principle of doubling or halving, a blank .50 round  
15 (130 dB) would drop below 80 dB at a distance of 500 feet from the source. This is equivalent to  
16 a diesel truck going 40 miles per hour on a road at 50 feet (Temple 1992). Given the distance  
17 between proposed training activities and receptors (none occurring greater than 1,270 feet from  
18 the proposed project area), coupled with the short duration of these activities, and the presence of  
19 an existing small-arms range, noise impacts are considered to be less than significant.

20 To minimize adverse noise impacts resulting from proposed operations at the proposed project  
21 area, the IDARNG would continue to implement the SONMP (ACHPPM 2006) and work with the  
22 Elmore County zoning and planning departments to address potential land use incompatibilities  
23 and noise issues in the future.

#### 24 *Effects of Alternative B – Noise*

25 The impacts associated with Alternative B would be the same as Alternative A.

### 26 **3.5 SOILS**

27 The proposed project area is within the western portion of the 20,000-square-mile physiographic  
28 feature known as the Snake River Plain. This area is characterized by gentle terrain with basalt  
29 ridges, buttes, and cinder cones (Collett 1980, as cited in Stout and Associates 2004). The elevation  
30 ranges from 3,000 to 3,500 feet above mean sea level. Snake River Plain lava flows are responsible  
31 for the gently rolling terrain of the NCA, OCTC, and surrounding area (Shallat et al. 1994, as cited  
32 in Stout and Associates 2004). These basalt flows occurred during the Pleistocene Era or earlier  
33 and formed the underlying layer of Snake River basalt. The Snake River basalt layer ranges in  
34 depth from very shallow to thousands of feet deep (Collett 1980, as cited in Stout and  
35 Associates 2004). Soils in the Snake River Plain are well drained to excessively drained, have an  
36 aridic (in other words, arid climate) or aridic-bordering xeric (in other words, moist, cool winters  
37 and dry, warm summers) soil moisture regime, and have a mesic soil temperature regime (with  
38 mean soil temperatures ranging from 46°F to 15°F).

1 **3.5.1 Affected Environment – Soils**

2 The ROI for impacts to soils under the Proposed Action Alternatives include the proposed project  
3 area, NCA Management Area 3, and the OCTC (Map 13) (USDA NRCS 2018). For detailed  
4 descriptions of soil types (in other words, map units) identified within the ROI and proposed  
5 project area, refer to the specialist report in Appendix H, pages 104-120.

6 There are several ways to describe susceptibility of soils to erosion and assess their relative potential  
7 for impacts from ground-disturbing activities. Typically, erodibility is described as the potential for  
8 soils and soil aggregates to be displaced either by water or by wind. Sheet and rill erosion (erosion  
9 from water droplets, running water, or both) are of limited concern in the proposed project area due  
10 to low average annual precipitation (8 to 12 inches annually). Therefore, the susceptibility of soils  
11 to erosion by wind will be the primary index throughout this section in describing current soil  
12 conditions and determining potential impacts to soil under each action alternative.

13 Soil erodibility by wind is directly related to the percentage of dry nonerodible surface soil  
14 aggregates larger than 0.84 mm in diameter. From this percentage, the wind erodibility index (WEI;  
15 I factor) is determined. The I factor is an expression of the stability of these soil aggregates against  
16 breakdown by tillage and abrasion from wind erosion. Soils are placed in wind erodibility groups  
17 (WEGs) having similar percentages of dry soil aggregates larger than 0.84 mm and ranging from  
18 1 (high susceptibility) to 8 (low susceptibility). Although WEGs were originally designed for  
19 cultivated areas, soil disturbance of nearly any kind (for example, tank maneuvering) can have the  
20 same effect of breaking down soil structure to liberate fine fractions and causing erosion (Hess 2015).

21 The ROI soils are mainly within WEGs 5 and 6 (77 and 18 percent, respectively) (Map 13; Table  
22 3-10). Soils within the proposed project area are also mostly within WEGs 5 and 6 (41 and  
23 46 percent, respectively), with a larger proportion within WEG 6 as compared to the ROI as a  
24 whole. In comparison to the ROI, the proposed project area contains soils with equal to or lower  
25 overall wind erodibility risk. Given that soils are mainly within these two WEGs, wind erosion is  
26 a moderate risk to the soil resources in the proposed project area.

27 While physical soil properties, described here as WEGs, are important for predicting soil  
28 disturbance potential, current soil surface conditions and disturbance history are also important  
29 factors to consider. Biological soil crusts (BSCs) are an important symbiotic component of the soil  
30 and associated vegetation that are composed of lichens, mosses, and cyanobacteria. Biological soil  
31 crusts function as living mulch, retaining soil moisture and discouraging annual weed growth  
32 (BLM 2001). Biological soil crusts also reduce wind and water erosion within plant interspaces,  
33 fix atmospheric nitrogen, and contribute to soil organic matter (BLM 2001). In addition,  
34 cyanobacteria release polysaccharides, which, in combination with lichen and moss rhizines,  
35 entrap and bind soil particles together, increasing the size of soil aggregates and making it difficult  
36 for wind to displace the soil (BLM 2001). Biological soil crusts are variably present within the  
37 proposed project area but have experienced increasing alteration and fragmentation from  
38 disturbances such as fire, OHV use, livestock trampling, and the conversion of perennial plant  
39 communities to annual invasive species, which can reduce the crust-covered interspaces between  
40 plants, reducing the cover and diversity of BSCs and potentially increasing erosion (Belnap and  
41 Eldridge 2001). Vegetation within the proposed project area is dominated by native perennial and



1 nonnative annual grasslands with 14 percent of the proposed project area being sparsely vegetated,  
2 mostly in the southwest corner of the area. Sparsely vegetated areas may be more susceptible to  
3 erosion. For more information on the fire disturbance history and current vegetation cover of the  
4 proposed project area, refer to **Sections 3.6.3** and **3.6.1**, respectively.

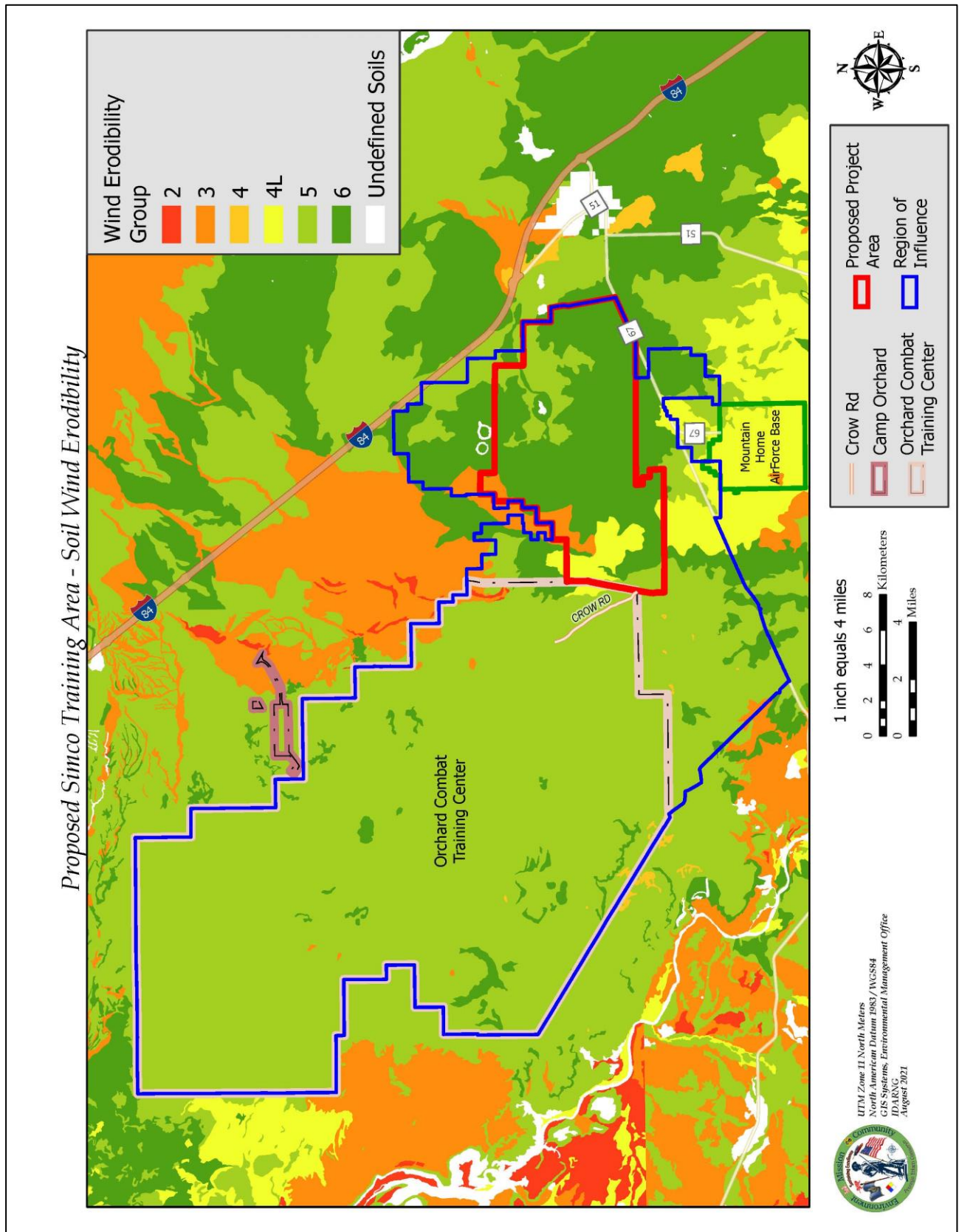
**Table 3-10. Wind Erodibility Group of Soils within the ROI and Proposed Project Area**

<b>Wind Erodibility Group Properties</b>	<b>WEG</b>	<b>Acres within the ROI</b>	<b>Percent of the ROI</b>	<b>Acres within the Proposed Project Area</b>	<b>Percent of the Proposed Project Area</b>	<b>Percent of Total WEG Type That Occurs within the Proposed Project Area<sup>a</sup></b>
Very fine sand, fine sand, sand, or coarse sand	1	0	0	0	0	0
Loamy very fine sand, loamy fine sand, loamy sand, loamy coarse sand, or sapric (1) organic soil materials	2	164	0.08	0	0	0
Very fine sandy loam, fine sandy loam, sandy loam, or coarse sandy loam	3	3,814	2	1,355	5	36
Clay, silty clay, noncalcareous clay loam, or silty clay loam with > 35 percent clay content	4	226	0.1	0	0	0
Calcareous (b) loam, silt loam, clay loam, or silty clay loam	4L	6,148	3	2,289	8	37
Noncalcareous loam and silt loam with < 20 percent clay content, or sandy clay loam, sandy clay, and hemic (1) organic soil materials	5	161,994	77	11,704	41	7

<b>Wind Erodibility Group Properties</b>	<b>WEG</b>	<b>Acres within the ROI</b>	<b>Percent of the ROI</b>	<b>Acres within the Proposed Project Area</b>	<b>Percent of the Proposed Project Area</b>	<b>Percent of Total WEG Type That Occurs within the Proposed Project Area<sup>a</sup></b>
Noncalcareous loam and silt loam with > 20 percent clay content, or noncalcareous clay loam with < 35 percent clay content	6	37,828	18	13,015	46	34
Silt, noncalcareous silty clay loam with > 35 percent clay content and fibric (1) organic soil material	7	0	0	0	0	0
Soils not susceptible to wind erosion due to coarse fragments or wetness	8	0	0	0	0	0
Undefined soils	N/A	333	0	66	0	20
<b>Grand total</b>		<b>210,507</b>	<b>100</b>	<b>28,429</b>	<b>100</b>	<b>14</b>

<sup>a</sup> This column represents the proportion of each WEG classification present in the ROI that occurs within the proposed project area. For example, of the 37,828 acres of WEG group 6 (noncalcareous loam with greater than 20 percent clay content) that occurs within the AOI, 34 percent is within the proposed project area.

1



1

2 **Map 13. Soil Wind Erodibility Groups within the ROI**

1 **3.5.2 Environmental Consequences – Soils**

2 **Issue Statement:** How would surface disturbance associated with military training affect soil  
3 erosion?

4 **Indicators:** Impact indicators for this resource include the estimated number of acres of exposed  
5 soil following construction and military training activities.

6 **Significance Criteria:** Any action resulting in a regulator’s enforcement action for water or air  
7 quality, per the Clean Air and Clean Water Acts, would be considered significant.

8 **Short Term:** Effects expected to last no more than one growing season (1 water year).

9 **Long Term:** Effects expected to last more than one growing season.

10 **Local:** Effects expected to occur within direct proximity (less than 100 meters) to the disturbance.

11 **Landscape:** Effects expected to occur within a greater distance (more than 100 meters) from the  
12 disturbance.

13 **Region of Influence:** The ROI includes the proposed project area, BLM NCA Management Area  
14 3, and the OCTC.

15 ***Effects of the No Action Alternative – Soils***

16 Implementation of the No Action Alternative would have no effects on the current soil conditions  
17 within the ROI. Authorized uses and their impacts to soil erosion and sedimentation, including  
18 OHV use, military training within the OCTC, and livestock grazing, would continue at their current  
19 levels within the ROI.

20 ***Effects of Alternative A – Soils***

21 Under Alternative A, short-term and long-term, local, less than significant adverse and beneficial  
22 effects would occur. Short-term localized adverse impacts to soils are anticipated from  
23 construction activities and military training activities. Long-term localized beneficial impacts to  
24 soils are anticipated from the proposed roadway improvements and assembly areas. Adverse  
25 impacts at the landscape level are not anticipated.

26 Under Alternative A, all current and ongoing impacts to soils described under the No Action  
27 Alternative would continue at their current rates, with the exception of wildland fire frequency  
28 (**Section 3.6.3**).

29 Implementation of Alternative A would require minimal resurfacing (in other words, infrastructure  
30 improvements), but major changes in topography and drainage patterns would not be expected. No

1 adverse impacts to geology or bedrock (such as deep excavation) are proposed or anticipated. No  
2 geologic hazards are apparent in the proposed project area (King et al. 2011).

3 Short-term local adverse soil erosion and sedimentation impacts would be possible resulting from  
4 construction activities associated with the proposed road improvement, pipeline trenching, and  
5 assembly area construction for a total of 61 acres. Impacts would primarily occur on soils with  
6 moderate risk of wind erosion (WEGs 5 or 6), with few instances of overlap with soils of  
7 moderately high risk of wind erosion (WEGs 4L and 3). No impacts would occur in soils with high  
8 risk of wind erosion (WEGs 1 and 2). Short-term impacts to soils would include the temporary  
9 crushing or removal of vegetative cover and underlying litter, disturbance to the physical and  
10 biological soil surface, and minor compaction of the soil locally. Impacts as described would result  
11 in the soils being exposed and more susceptible to erosion by wind during and immediately  
12 following construction activities.

13 Short-term local adverse soil erosion and sedimentation impacts would also be possible resulting  
14 from proposed military dig sites and maneuver training operations and are assumed to occur  
15 annually during training events. Under Alternative A, dig sites could occur anywhere within the  
16 proposed project area and will affect no more than 15 acres (5 acres of BLM-managed land and  
17 10 acres IDL-managed land) annually. Individual dig sites would displace soils the width of a tank  
18 (approximately 3 meters) and up to 2 meters deep during the training exercise. After the dig site  
19 has been used, the training unit is required to return all displaced soil to the dig site.

20 Maneuver training operations has been occurring on the adjacent OCTC with similar soil wind  
21 erodibility characteristics (Map 13) for several decades and has resulted in mild to severe local soil  
22 disturbance, with severe soil disturbance associated with improvised assembly areas and travel  
23 corridors (roads). Under the Proposed Action Alternatives, hardened assembly areas and travel  
24 corridors will be constructed to avoid this source of soil disturbance. While infrequent, additional  
25 local soil surface disturbance can occur when individual vehicles make sharp turns or happen to  
26 travel across another track several times, causing overlap. However, based on the width of the  
27 maneuver training lanes in the proposed project area and training specifications (for example, the  
28 distance to be maintained between vehicles during maneuver training activities), it is assumed that  
29 tracked vehicles will have one pass over an area 95 percent of time, two passes would occur  
30 5 percent of the time, and it is unlikely that areas would receive three or more passes, reducing the  
31 chance for the soil surface to be disturbed to the point of removing vegetation and being exposed.  
32 Additionally, training activities would be rotated throughout the proposed project area from  
33 exercise to exercise, allowing disturbed areas to “rest” and vegetation to re-establish.

34 Disturbance of soils from dig sites and maneuver training operations would locally increase the  
35 risk of wind erosion by crushing or removing vegetation and exposing the soil surface. Given the  
36 nature of military training exercises, it is impossible to know exactly where training impacts will  
37 occur within the proposed project area, and they may occur on soils with moderate to moderately  
38 high erodibility potential (WEGs 4L and below). No highly erodible soils (WEGs 1 and 2) occur  
39 within the proposed project area, and therefore they would not be affected by the Proposed Action.  
40 While military training can occur within the proposed project area from May 1 through October 31,  
41 training SOPs prohibit maneuver training operations during times of soil saturation to reduce the

1 impacts to soils and vegetation. Training activities during summer and fall months, when soils are  
2 dry, are anticipated to disturb the top soil, which may result in local wind erosion in the form of  
3 fugitive dust.

4 Postconstruction and postmilitary training rehabilitation BMPs identified in Appendix G requiring  
5 reseeding with a native or desirable nonnative species seed mix and periodic rest of disturbed areas  
6 would be implemented to manage the potential for adverse soil impacts from wind and surface  
7 runoff and to ensure impacts to soils (in other words, exposed top soil) last less than one growing  
8 season (to ensure a short-term duration). Interannual climatic variability may influence  
9 rehabilitation success and timing. However, under requirements of the BMPs, repeat intervention  
10 would be performed until desired conditions have been met (regarding soil stability and a return  
11 to vegetation conditions similar to or exceeding pre-disturbance conditions), ensuring effects do  
12 not persist.

13 It is assumed that if a regulatory trigger for the CAA or Clean Water Act were to be exceeded due  
14 to ambient dust emissions or top soil loss, significant impacts to the soils would occur. Given the  
15 limited spatial extent of the aforementioned short-term local adverse soil erosion and  
16 sedimentation impacts from construction and military training, the implementation of onsite  
17 postconstruction rehabilitation BMPs to reduce the duration of exposed soils within the proposed  
18 project area, and observed historical disturbances from similar annual military training activities  
19 in similarly erodible soils on the OCTC, top soil loss leading to an enforcement action under the  
20 CAA or Clean Water Act (**Section 1.4.5**) from construction or military training activities under  
21 Alternative A is not anticipated, and the impacts will therefore be less than significant.

22 Long-term local beneficial soil erosion and sedimentation impacts would be possible resulting  
23 from the proposed road improvements and assembly areas. Under the Proposed Action,  
24 approximately 142 total acres (82 acres due to the improved roads and 60 acres due to the three  
25 assembly areas) would be permanently affected where soils would be graded, compacted, and  
26 hardened with crushed gravel and the road would have drainage installed. The conversion to  
27 hardened surfaces would reduce current wind and water erosion to exposed soils along the existing  
28 unimproved roads and project assembly area locations, which are currently vegetated  
29 predominately by exotic annual grasses and forbs (47 percent) or a mix of bare ground and Russian  
30 thistle (25 percent). The location of the improved road is associated with an existing two-track  
31 road. As such, a large portion (nearly 40 percent) of the 82 acres affected have been previously  
32 disturbed and compacted. Both the road and assembly areas would be maintained annually to  
33 address potential localized rutting and exposed, erodible soils resulting from repeated use by  
34 military vehicles.

35 No mitigation measures would be necessary to reduce any adverse environmental impacts to below  
36 significant levels. However, implementation of SOPs and BMPs (Appendix G) during construction  
37 and training activities would be used to manage adverse less than significant impacts.

### 38 *Effects of Alternative B – Soils*

39 Effects under Alternative B would be nearly identical to those anticipated under Alternative A,  
40 except in the case described in the following paragraph. As such, short-term local less than

1 significant adverse effects to soil erosion and sedimentation are anticipated from infrastructure  
2 construction and military training activities. Long-term localized beneficial impacts to soils are  
3 anticipated from the proposed road improvements and assembly areas. Adverse impacts at the  
4 landscape level are not anticipated.

5 Under Alternative B, dig sites on BLM-managed land would still affect no more than 15 acres  
6 (5 acres of BLM-managed land and 10 acres of IDL-managed land) annually; however, digging  
7 on BLM-managed land would be restricted to a predefined 1,100-acre area. These predefined areas  
8 would restrict digging disturbance on BLM-managed land to only soils with moderate risk to wind  
9 erosion (WEGs 5 and 6). Restricting the total available area for digging would increase the chance  
10 of repeat use of the same dig site, which may lead to overall site degradation and greater difficulty  
11 in achieving rehabilitation success (soil stability and a return to vegetation conditions similar to or  
12 exceeding pre-disturbance conditions).

13 It is assumed that if a regulatory trigger for the CAA or Clean Water Act were to be exceeded due  
14 to ambient dust emissions or top soil loss, significant impacts to the soils would occur. Given the  
15 same justification presented under Alternative A, top soil loss leading to an enforcement action  
16 under the CAA or Clean Water Act from construction or military training activities under  
17 Alternative B is not anticipated, and the impacts will therefore be less than significant.

18 **3.6 BIOLOGICAL RESOURCES – VEGETATION, THREATENED AND**  
19 **ENDANGERED PLANT SPECIES, AND WILDLAND FIRE**

20 **3.6.1 Vegetation and Invasive or Nonnative Species**

21 The ROI for vegetation includes the proposed project area, all of the OCTC, and BLM NCA  
22 Management Area 3 (Map 14). The ROI and proposed project area fall within the Snake River  
23 Plain ecoregion, which is characterized by semiarid rolling plains and low hills at an elevation that  
24 varies from 640 to 1,311 meters (2,000 to 4,300 feet). Precipitation is relatively low across the  
25 region with an average of 8 inches annually. Where irrigation water and soil depth are sufficient,  
26 alluvial valleys bordering the Snake River have been converted to agricultural use, and elsewhere,  
27 livestock grazing and recreational use are widespread.

28 *Affected Environment – Vegetation and Invasive or Nonnative Species*

29 Land cover within the ROI is within the regional landform and vegetation classification known as  
30 the Southern Xeric Shrubland and Steppe (IDFG 2005 as cited in Warner 2014b). The ROI is a  
31 relatively flat basin with elevations ranging from 3,050 to 3,300 feet above mean sea level, and it  
32 receives 6 to 10 inches of precipitation annually. Pre- and early-settlement vegetation in the ROI  
33 was dominated by three principal vegetation communities: Wyoming big sagebrush (*Artemisia*  
34 *tridentata* subsp. *wyomingensis*), winterfat (*Krascheninnikovia lanata*), and four-wing saltbush  
35 (*Atriplex canescens*). Green and rubber rabbitbrush (*Chrysothamnus viscidiflorus* and *Ericameria*  
36 *nauseosa*) typically occurred as subdominant shrubs in late-seral plant communities throughout  
37 the ROI. However, these resprouting shrubs have become dominant in some areas due to  
38 increasing fire frequency.



1 Native perennial grasses are found throughout the ROI. Smaller stature grasses with more shallow  
2 root systems such as Sandberg bluegrass (*Poa secunda*) and bottlebrush squirreltail (*Elymus*  
3 *elymoides*) are the primary native grass species throughout the ROI. Larger stature grasses with  
4 deeper root systems, such as Thurber’s needlegrass (*Achnatherum thurberianum*), Indian ricegrass  
5 (*Achnatherum hymenoides*), needle and thread (*Hesperostipa comata*), bluebunch wheatgrass  
6 (*Pseudoroegneria spicata*), and Basin wildrye (*Leymus cinereus*), are much more isolated and  
7 generally occur in rocky area and drainages, with some in the understory of residual shrub  
8 communities. This group of grasses makes up a very small percentage of the native grass species  
9 found within the ROI.

10 Biological soil crusts consisting of lichens, algae, and mosses were another important part of the  
11 understory, and still occur in more intact portions of the ROI. By the 1980s, these vegetation  
12 communities had become highly altered by fire, development, livestock grazing, and other  
13 disturbances.

14 Frequent wildland fires and other disturbances have converted more than 50 percent of the ROI  
15 landscape from native sage-steppe vegetation to a nonnative annual dominated system dominated  
16 by cheatgrass (*Bromus tectorum*), annual invasive Brassicaceae species, and Russian thistle  
17 (*Salsola tragus*). Exotic vegetation communities are considered to possess relatively low resource  
18 value, and the dominance of shallow-rooted annual invasive species can affect site productivity,  
19 decrease overall plant community nutrient cycling (Ehrenfeld 2003), and increase the frequency  
20 and intensity of wildland fire (D’Antonio and Vitousek 1992). Natural fire return intervals in  
21 Wyoming big sagebrush communities, which once dominated most of the proposed project area,  
22 are variable and used to range from about 30 to 120 years with an average for stand replacement  
23 of 92 years (Bunting et al. 1987). However, with increasing disturbance and conversion to  
24 nonnative annual vegetation, more than 57 percent of the ROI has burned between 1957 and 2018,  
25 and approximately 16 percent has burned two or more times during that period (BLM 2019b). For  
26 a detailed discussion of wildland fire in the region, refer to **Section 3.6.3**. Only 27 percent of the  
27 ROI is still occupied by native shrublands, primarily located within the OCTC, leading to a loss  
28 of habitat for raptor prey base species (**Section 3.7**) and potential habitat for slickspot peppergrass  
29 (**Section 3.6.2**).

30 Acres of vegetation and other cover types (for example, bare ground, cinder, playas) within the  
31 ROI and proposed project area were estimated using 2016 RapidEye 7-meter near infrared imagery  
32 processed by Boise State University (Spaete et al. 2016; Enterkine et al. 2018) and confirmed by  
33 ocular estimates made during detailed site visits conducted by an environmental survey contractor  
34 and IDARNG Environmental Management Office (EMO) staff from 2015 to 2017 and seasonal  
35 visits from 2017 to present. Overall, the proposed project area is dominated by grassland habitat,  
36 including native perennial bunchgrasses (Sandberg bluegrass [37 percent]) and nonnative annual  
37 grasses (cheatgrass [21 percent]). Other non-shrub cover types include disturbed areas of bare  
38 ground (for example, roads and trails) and nonnative annual forbs (*Brassicaceae spp.* and Russian  
39 thistle [23 percent, together]). There are sparse pockets of shrubs within the proposed project area  
40 consisting primarily of degraded sagebrush habitat with an understory of cheatgrass (13 percent),  
41 most of which occurs along the Canyon Creek drainage. Table 3- presents a summary of the  
42 vegetation cover types found in the ROI and proposed project area. Map 14 shows the mapped  
43 vegetation types in the ROI.

1 There have been only a few land treatments recorded within the proposed project area, including  
 2 postfire herbicide applications and aerial and drill seedings. Specifically, one aerial seeding of  
 3 sagebrush in the northeast of the proposed project area (Crater II F197) was conducted in  
 4 1987 immediately following the Crater II fire. From field visits, it appears that seeding was at least  
 5 marginally successful at maintaining or re-establishing postfire sagebrush cover, though the  
 6 understory remains to be dominated by cheatgrass and nonnative annual forbs.

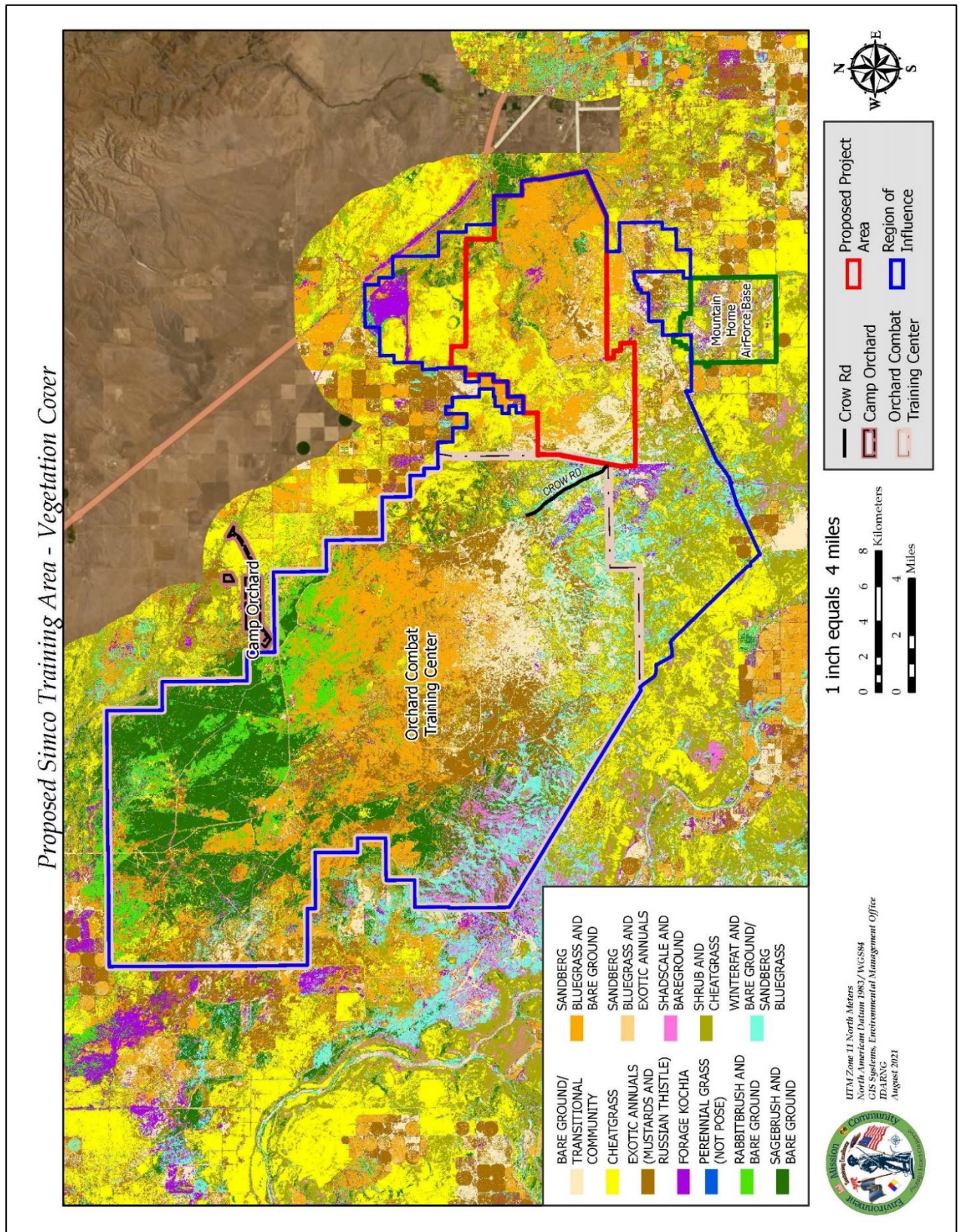
7 Noxious weeds are invasive exotic plant species the State of Idaho has designated as being  
 8 hazardous to public health, the environment, or the economy. Idaho has 67 species of noxious  
 9 weeds. Sparse occurrences of three noxious weed species were observed during site visits that an  
 10 environmental survey contractor and IDARNG EMO staff conducted from 2015 to 2017: rush  
 11 skeleton weed (*Chondrilla juncea*), Canada thistle (*Cirsium arvense*), and whitetop (*Cardaria*  
 12 *draba*, aka hoary cress). These noxious weeds are relatively common in disturbed and degraded  
 13 habitat and can disperse via seeds or rhizomes (roots) (DiTomaso et al. 2013).

14 **Table 3-11. Summary of Vegetation Types Present in the ROI and Proposed Project Area**

<b>Vegetation Cover Class</b>	<b>Acres within the ROI</b>	<b>Percent of the ROI</b>	<b>Acres within the Proposed Project Area</b>	<b>Percent of the Proposed Project Area</b>	<b>Percent of Total Cover Class That Occurs within the Proposed Project Area<sup>a</sup></b>
Sandberg bluegrass with bare ground interspace	39,587	19	10,400	37	26
Cheatgrass	26,753	13	5,925	21	22
Bare ground and sparse nonnative annuals	22,435	11	3,965	14	18
Shrub with cheatgrass understory	26,634	13	3,740	13	14
Nonnative annual forbs	32,492	15	2,660	9	8
Sagebrush with bare ground understory	27,989	13	658	2	2
Forage kochia	4,575	2	334	1	7
Rabbitbrush with bare ground understory	10,769	5	233	1	2
Winterfat with bare ground or Sandberg bluegrass understory	13,955	7	385	1	3
Shadscale with bare ground understory	4,385	2	64	0.23	1
Sandberg bluegrass with nonnative annual interspace	932	0	69	0.24	7
<b>Grand Total</b>	<b>210,506</b>	<b>100</b>	<b>28,433</b>	<b>100<sup>b</sup></b>	<b>14</b>

<sup>a</sup> This column represents the proportion of each vegetation cover classification present in the ROI that occurs within the proposed project area.

<sup>b</sup> Percentages may not equal 100 due to rounding.



1

2 **Map 14. Vegetation Cover Types Within the ROI**

1 **Environmental Consequences – Vegetation and Invasive or Nonnative Species**

2 **Issue Statement:** How would ground disturbance affect the risk of occurrence of invasive and  
3 nonnative species?

4 **Indicators:** Impact indicators for this resource include the number of acres of exposed soil  
5 following training activities.

6 **Significance Criteria:** Any action resulting in a “May affect, and is likely to adversely affect”  
7 decision for a recorded federally listed plant species, or resulting in a special status plant species  
8 becoming listed under the ESA, would be considered significant.

9 **Short Term:** Effects expected to last no more than one growing season (1 water year).

10 **Long Term:** Effects expected to last more than one growing season.

11 **Local:** Effects expected to occur within direct proximity (less than 100 meters) to the disturbance.

12 **Landscape:** Effects expected to occur within a greater distance (more than 100 meters) from the  
13 disturbance.

14 **Region of Influence:** The ROI for vegetation includes the proposed project area, all of the OCTC,  
15 and BLM NCA Management Area 3.

16 **Effects of the No Action Alternative – Vegetation and Invasive or Nonnative Species**

17 Implementation of the No Action Alternative would have no effects on the current vegetation  
18 conditions within the ROI. Authorized uses and their impacts to vegetation as described in the  
19 Affected Environment, including OHV use, military training within the OCTC, and livestock  
20 grazing, would continue at their current levels within the ROI (Appendix G).

21 **Effects of Alternative A – Vegetation and Invasive or Nonnative Species**

22 Under Alternative A, short-term and long-term, local, less than significant adverse effects to  
23 vegetation would occur during land-disturbing activities. Short-term localized adverse impacts to  
24 vegetation are anticipated from construction activities and military training activities. Adverse  
25 impacts at the landscape level are not anticipated. Long-term beneficial effects to vegetation  
26 through implementation of SOPs that require noxious weed monitoring and treatment, enhanced  
27 monitoring of general and special-status species vegetation, enhanced wildland fire assets,  
28 rehabilitation of disturbed areas with native or desirable nonnative species, and offsite habitat  
29 enhancement of permanently impacted vegetation would occur.

30 Under Alternative A, all current and ongoing effects to vegetation described in the Affected  
31 Environment would continue at their current rates with the exception of wildland fire frequency,

1 which may be reduced. For an explanation of the effects Alternative A may have on wildland fire,  
2 refer to **Section 3.6.3**.

3 Short-term local adverse impacts to vegetation would be possible resulting from construction  
4 activities associated with the proposed road improvement, pipeline trenching, and assembly area  
5 construction for a total of 61 acres. Impacts would primarily occur in existing disturbed areas of  
6 bare ground (for example, existing roads and trails) or exotic annual vegetation communities  
7 (53 percent). Some projects would affect areas of Sandberg bluegrass (29 percent), mostly due to  
8 road expansion in the southeast of the proposed project area. Minimal impacts to sagebrush would  
9 occur (12 percent), and impacts would be limited to sagebrush with cheatgrass understory.  
10 Short-term impacts to vegetation would include the temporary crushing or removal of vegetative  
11 cover, disturbance to the physical and biological soil surface, and increased exposed soil during  
12 and immediately following construction activity. Impacts as described would result in the soils  
13 being exposed and more susceptible to erosion (See **Section 3.5.2**) the establishment of nonnative  
14 annual species.

15 Short-term local adverse impacts to vegetation would also occur resulting from proposed military  
16 dig sites and maneuver training operations and are assumed to occur annually during training  
17 events. Under Alternative A, dig sites could occur anywhere within the proposed project area and  
18 will affect no more than 15 acres (5 acres of BLM-managed land and 10 acres of IDL-managed  
19 land) annually. Individual dig sites would remove surface vegetation the width of a tank  
20 (approximately 3 meters) and up to 2 meters deep during the training exercise. After the dig site  
21 has been used, the training unit is required to return all displaced soil to the dig site.

22 Maneuver training operations has been occurring on the adjacent OCTC with similar ecological  
23 site conditions<sup>3</sup> for several decades and has resulted in mild to severe local soil disturbance, mostly  
24 associated with improvised assembly areas and travel corridors (in other words, roads). Under the  
25 Proposed Action Alternatives, hardened travel corridors and three assembly areas will be  
26 constructed to avoid this source of vegetation disturbance. While infrequent, additional local soil  
27 surface disturbance can occur when individual vehicles make sharp turns or happen to travel across  
28 another track several times, causing overlap, which can result in vegetation removal and exposed  
29 soil surfaces. However, based on the width of the maneuver training lanes in the proposed project  
30 area and training specifications (for example, the distance to be maintained between vehicles  
31 during maneuver training activities), it is assumed that tracked vehicles will have one pass over an  
32 area 95 percent of time, two passes would occur 5 percent of the time, and it is unlikely that areas  
33 would receive three or more passes, reducing the chance for the soil surface to be disturbed to the  
34 point of removing vegetation. Additionally, training activities would be rotated throughout the  
35 proposed project area from exercise to exercise, allowing disturbed areas to rest and vegetation to  
36 re-establish.

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3 As provided by the USDA's Natural Resources Conservation Service: An ecological site is defined as "a distinctive kind of land with specific soil and physical characteristics that differ from other kinds of land in its ability to produce a distinctive kind and amount of vegetation" and its ability to respond similarly to management actions and natural disturbances (USDA NRCS 2021).

1 Additionally, the IDARNG has been monitoring vegetation condition throughout the OCTC,  
2 including areas where maneuver training operations has occurred, for more than 30 years through  
3 range condition trend analysis (RCTA) plots. Range condition trend analysis vegetation  
4 monitoring data on the OCTC show no significant change in nonnative species cover or common  
5 native perennial grass cover, specifically *Poa secunda*, in plots with historical and annual  
6 maneuver training operations (IDARNG EMO 2020) as compared to those without a history of  
7 such training. Therefore, vegetation disturbances resulting from maneuver activities are not  
8 anticipated to result in local or landscape-level changes in vegetation composition from its current  
9 state in the proposed project area.

10 Disturbance of vegetation and soils from dig sites and maneuver training operations would locally  
11 increase susceptibility to the establishment of nonnative annual species by crushing or removing  
12 existing vegetation and exposing the soil surface. Given the nature of military training exercises,  
13 it is impossible to know exactly where training impacts will occur annually within the proposed  
14 project area. Presently, grasslands, both native and nonnative, account for the majority (64 percent)  
15 of the total area available for maneuver training operations within the proposed project area  
16 (outside of proposed off-limits areas) and have been shown to be resistant to single- and  
17 double-pass impacts from maneuver training operations (CEMML 2013). Shrub communities,  
18 which are more susceptible to disturbance from maneuver training operations, account for just  
19 15 percent of the available training area due to training off-limits designations under the Proposed  
20 Action. It is anticipated that vehicle maneuvers would avoid shrub communities, with the  
21 exception of specific fencing crossing points, which are discussed later in this section.

22 Postconstruction and postmilitary training rehabilitation BMPs identified in Appendix G requiring  
23 reseeded with a native or desirable nonnative species seed mix and periodic rest of disturbed areas  
24 would be implemented to manage the potential for adverse soil and vegetation impacts and ensure  
25 impacts (in other words, exposed soils) last less than one growing season, reducing the chance for  
26 nonnative species establishment. Interannual climatic variability may influence rehabilitation  
27 success and timing. However under requirements of the BMPs, repeat intervention would be  
28 performed until desired conditions have been met (soil stability and a return to pre-disturbance  
29 vegetation conditions), ensuring effects do not persist.

30 Long-term local adverse impacts to vegetation would occur resulting from the proposed road  
31 improvements, assembly areas, and heavy maneuver fence crossing locations. Construction of road  
32 improvements and assembly areas would permanently remove existing vegetation and replace it  
33 with crushed gravel and road mix. The location of the improved road is associated with an existing  
34 two-track road. As such, a large portion (nearly 40 percent) of the 82 acres affected has been  
35 previously disturbed and is currently bare ground. Therefore, road improvements and assembly  
36 areas would remove a total of approximately 109 vegetated acres, which are dominated by  
37 cheatgrass and exotic annual forbs (32 percent) or Sandberg bluegrass (22 percent). There are  
38 approximately 18 acres of sagebrush-dominated habitat that would be permanently removed, only  
39 1 acre of which is sagebrush with native grass understory. Additionally, there are two shrub  
40 patches on BLM-managed lands that co-occur with fence lines that maneuver vehicles may cross  
41 during training. In these specific instances, vehicles will be restricted to defined crossing corridors  
42 to minimize the spatial impact to the entire shrub patch. It is possible that maneuvering in these

1 crossing corridors would result in permanent loss of vegetation (due to multiple overlapping  
2 tracks) over time, but this is not anticipated to exceed approximately 1.5 acres.

3 Of the 109 acres of permanent loss of vegetation due to road improvements and assembly areas  
4 under Alternative A, 54 acres (50 percent) would occur on BLM-managed land. Idaho Army  
5 National Guard will monitor shrub crossing corridors annually to determine if permanent impacts  
6 to the vegetation have occurred and to establish the spatial extent of such loss. Permanent loss of  
7 vegetation on BLM-managed lands will be mitigated through offsite habitat enhancement, as  
8 required under the 2020 MOU between BLM and IMD. The MOU states that all new ROWs  
9 granted within the NCA on BLM-managed land must provide a net positive vegetation condition  
10 (Appendix B). As such, the IDARNG will provide offsite habitat enhancement at a greater than  
11 1:1 habitat value, as defined in Appendix B, of all permanently disturbed acres from the Proposed  
12 Action. This mitigation is to offset impacts to vegetation from the Proposed Action, as required in  
13 the 2020 MOU, but is not needed to reduce impacts below the level of significance.

14 It is assumed that if adverse impacts to vegetation from the Proposed Action were to result in a  
15 “May affect, and is likely to adversely affect” determination for a recorded federally listed plant  
16 species (USFWS 1998) or result in a special status plant species becoming listed under the ESA,  
17 then significant impacts to the vegetation conditions within the proposed project area would occur.  
18 Having low plant species diversity and a high cover of nonnative vegetation, the proposed project  
19 area does not support ideal site conditions for species status plant species. Only two such species  
20 have been recorded within the proposed project area: BLM Type 3 species Davis’ peppergrass,  
21 and ESA-listed species slickspot peppergrass. Davis’ peppergrass occurs within identified playas,  
22 which will be protected from construction and maneuver training operations within off-limits  
23 areas. Therefore, no impacts to the species are anticipated. **Section 3.6.2** fully discusses impacts  
24 to Davis’ peppergrass and slickspot peppergrass.

25 Overall, direct and indirect effects to slickspot peppergrass and its PCH were considered through  
26 consultation with the USFWS, including potential impacts of the Proposed Action to nonnative  
27 vegetation cover. Ultimately, a finding of “may effect, but is not likely to adversely effect” was  
28 determined, and the USFWS concurred with this determination (Appendix E). Given the limited  
29 spatial extent of the aforementioned short- and long-term local adverse impacts to vegetation from  
30 construction and military training, the implementation of BMPs requiring both onsite  
31 postdisturbance rehabilitation to reduce the duration of exposed soils and subsequent invasion of  
32 nonnative vegetation and offsite enhancement to mitigate permanent impacts, and historical  
33 vegetation trends observed within military training areas on the OCTC, vegetation disturbance  
34 resulting in take of the species or adverse modification of PCH are not anticipated to occur.  
35 Therefore, adverse impacts to vegetation under the Alternative A will be less than significant.

36 Long-term local and landscape-level beneficial impacts to vegetation would be possible through  
37 the implementation of the IDARNG INRMP, which includes noxious weed monitoring and  
38 treatment, increased general and special-status vegetation trend monitoring (beyond current  
39 efforts), enhanced wildland firefighting assets (**Section 3.6.3**), and required postdisturbance  
40 rehabilitation and offsite habitat enhancement (Appendix B) BMPs identified in Appendix G.  
41 Successful implementation of the INRMP may result in a higher percentage of desirable plant

1 species over time, resulting in long-term local and landscape-level beneficial impacts to vegetation  
2 and special-status plant species within the proposed project area.

3 No mitigation measures would be necessary to reduce environmental impacts to below significant  
4 levels. However, implementation of SOPs and BMPs (Appendix G) during construction and  
5 training activities would be used to manage adverse less than significant impacts.

### 6 **Effects of Alternative B – Vegetation and Invasive or Nonnative Species**

7 Effects under Alternative B would be nearly identical to those anticipated under Alternative A  
8 except in the case described in the following paragraph. As such, short-term and long-term local,  
9 less than significant adverse effects to vegetation would occur during land-disturbing activities,  
10 including construction and military training. Adverse impacts at the landscape level are not  
11 anticipated. Long-term beneficial effects to vegetation through implementation of SOPs that  
12 require noxious weed monitoring and treatment, enhanced monitoring of general and special-status  
13 vegetation, enhanced wildland firefighting assets, rehabilitation of disturbed areas with native or  
14 desirable nonnative species, and offsite habitat enhancement of permanently impacted vegetation  
15 would occur.

16 Under Alternative B, dig sites on BLM-managed land would still affect no more than 15 acres  
17 (5 acres of BLM-managed land and 10 acres of IDL-managed land) annually; however, digging  
18 on BLM-managed land would be restricted to a predefined 1,100-acre area. This predefined area  
19 is dominated by cheatgrass (67 percent), making it most likely that digging would occur in  
20 cheatgrass-dominant areas. Restricting the total available area for digging would increase the  
21 chance of repeat use of the same dig site, which may lead to overall site degradation and make it  
22 more difficult to achieve rehabilitation success (soil stability and a return to vegetation conditions  
23 similar to or exceeding pre-disturbance conditions).

24 It is assumed that if adverse impacts to vegetation from the Proposed Action were to result in a  
25 “May affect, and is likely to adversely affect” determination for a recorded federally listed plant  
26 species (USFWS 1998) or result in a special status plant species becoming listed under the ESA,  
27 then significant impacts to the vegetation conditions within the proposed project area would occur.  
28 Given the same justification provided under Alternative A, adverse impacts to recorded  
29 special-status species and the potential for vegetation disturbance leading to the ESA listing of a  
30 new species are not anticipated to occur. Therefore, adverse impacts to vegetation under  
31 Alternative B will be less than significant.

### 32 **3.6.2 Threatened, Endangered, or Special-Status Species (Plants)**

33 Twenty-three Idaho regional or state-imperiled botanical species (BLM Types 1 and 2 and  
34 state-listed), have been documented in the NCA (Appendix H). Observations used for this  
35 determination were obtained from the USFWS Information for Planning and Consultation, Idaho  
36 Fish and Game historical observation database, IDARNG annual vegetation monitoring plots  
37 (1987-2017), or site-specific clearances associated with the proposed project area  
38 (IDARNG 2018a; Ecosystem Sciences 2017b) (Appendix H).



1 Out of the 23 special-status plant species identified within the NCA (Appendix H), only 2 were  
2 within the proposed project area: slickspot peppergrass and Davis' peppergrass. Slickspot  
3 peppergrass and its associated PCH are listed as threatened under the ESA. Slickspot peppergrass  
4 is also recognized as an Idaho-listed species of conservation concern (State Rank S2) and a BLM  
5 Type 1 Special-Status Species. The 2021 biological assessment (BA) for this Proposed Action  
6 provides detailed analysis of the effects of all actions under the Proposed Action to slickspot  
7 peppergrass and slickspot peppergrass PCH, and is summarized in the following subsections and  
8 in Appendix H. Davis' peppergrass is a BLM Type 2 Special-Status Species and Idaho-listed  
9 species of conservation concern (State Rank S3).

### 10 *Affected Environment – Threatened, Endangered, or Special-Status Species (Plants)*

11 The ROI for special-status plant species is the same as for vegetation (**Section 3.6.1**) and includes  
12 the proposed project area, all of the OCTC, and BLM NCA Management Area 3 (Map 15).  
13 Because there were only two species recorded within the proposed project area, these will be the  
14 only species discussed further.

### 15 **Slickspot Peppergrass**

16 Slickspot peppergrass element occurrences (EOs) are documented within the ROI, including a  
17 large area within the northeastern portion of the OCTC and, to a lesser extent, within and adjacent  
18 to the proposed project area. Element Occurrences are areas in which the species was observed,  
19 and they can be used to determine where the species occurs currently or has occurred historically.

20 Slickspot peppergrass grows within specific environmental microsites, called slick spots, which  
21 can be mapped and surveyed to determine the potential for the species, or its seeds, to exist within  
22 a given area, as defined by BLM and adopted by the USFWS in the most recent Conservation  
23 Agreement (BLM and USFWS 2014). These areas of potential habitat can be further qualified as  
24 Occupied Habitat, Slickspot Peppergrass Habitat, or Unoccupied Habitat based on the presence or  
25 absence (in other words, occupancy) of the species through surveys (BLM 2010). Definitions of  
26 slickspot peppergrass terms are described briefly as follows:

- 27 • **Slickspot Peppergrass Observation** – Point observation (occurrence) of the species that have  
28 been recorded at any point in time (current or historical).
- 29 • **Element Occurrence** – Area where a species (slickspot peppergrass) is, or was, present and is  
30 typically represented by mapped areas of land where observations have been made.
- 31 • **Habitat Integrity Zone (HIZ)** – A 0.5-mile buffer surrounding an EO. This zone allows for  
32 potential conservation or restoration of native habitat to provide for insect pollinators. This  
33 area may or may not include slick spot microsites or the species.
- 34 • **Occupied Habitat** – A slickspot peppergrass EO and the 0.5-mile HIZ buffer.
- 35 • **Slickspot Peppergrass Habitat** – Areas with Wyoming big sagebrush ecological site  
36 conditions that, through initial standardized BLM surveys, have documented slick spot  
37 microsites (natric and natric-like soil types) between 2,200 feet and 5,400 feet elevation in

1 southwest Idaho. Slickspot peppergrass habitat includes areas with slick spots of unknown  
2 occupancy due to insufficient or disqualifying species surveys.

- 3 • **Unoccupied Habitat** – Slickspot peppergrass habitat where the presence of slickspot  
4 peppergrass plants has not been detected through Stage 2 and 3 inventory (in other words,  
5 assumed nonoccupancy). Due to the species’ biology, multiple years of targeted, standardized  
6 surveys are needed to determine reasonable lack of occupancy.
- 7 • **Nonhabitat** – Areas that do not contain slick spots, or slick spots that do not have the proper  
8 soil characteristics to support slickspot peppergrass.
- 9 • **BLM Stage 2 and 3 Surveys** – Standardized survey methods to document slickspot  
10 peppergrass occurrences in areas of unknown occupancy. Surveys that meet Stage 2 and  
11 Stage 3 Survey standards and result in no observations of the species are considered sufficient  
12 to declare an area as unoccupied habitat (BLM 2010).

13 Qualified biologists from the IDARNG EMO staff and an environmental contractor have surveyed  
14 the entire proposed project area for slickspot peppergrass and slick spot microsites during the  
15 months of April through July in 2016, 2017, and 2021. To date, all slickspot peppergrass habitat  
16 and occupied habitat occurring on BLM-managed and BOR-managed land within the proposed  
17 project area has been surveyed for at least 3 years in years where the recorded precipitation was  
18 equal to or greater than the required minimum amount to qualify under BLM’s survey standards  
19 (BLM 2010) and the most recent Conservation Agreement (BLM MOU ID-SO-2014-08). Idaho  
20 Department of Lands-managed lands within the proposed project area technically fall outside of  
21 BLM-defined slickspot peppergrass habitat, but much of those lands meet soil characteristics  
22 described in BLM standards as potential habitat for the species and were nonetheless surveyed in  
23 their entirety in 2016.

24 Occupied habitat, which includes slickspot peppergrass EOs and the HIZ, occurs within the ROI  
25 and proposed project area (Map 15). The largest EO within the ROI (5,811 acres) occurs within  
26 the OCTC (EO27), which has some of the highest recorded densities of slickspot peppergrass  
27 throughout its range (Kinter et al. 2014). There is one defined EO (EO2) and one undefined EO  
28 within the proposed project area that, together, total a little more than 2.5 acres (Map 15) Table  
29 3-12 describes the condition rankings of EOs identified within the ROI as per the most recent EO  
30 Assessment (Kinter and Miller 2016). The undefined EO is a single novel observation surveyors  
31 made in 2017 in the northeastern portion of the proposed project area. This observation has not  
32 been officially incorporated into the species database as an EO with an associated HIZ. However,  
33 for the purposes of this analysis, it is assumed that yearly data updates will result in the  
34 incorporation of the EO, and thus that observation and its estimated EO and HIZ size are included  
35 in the occupied habitat acres recorded in the ROI and proposed project area.

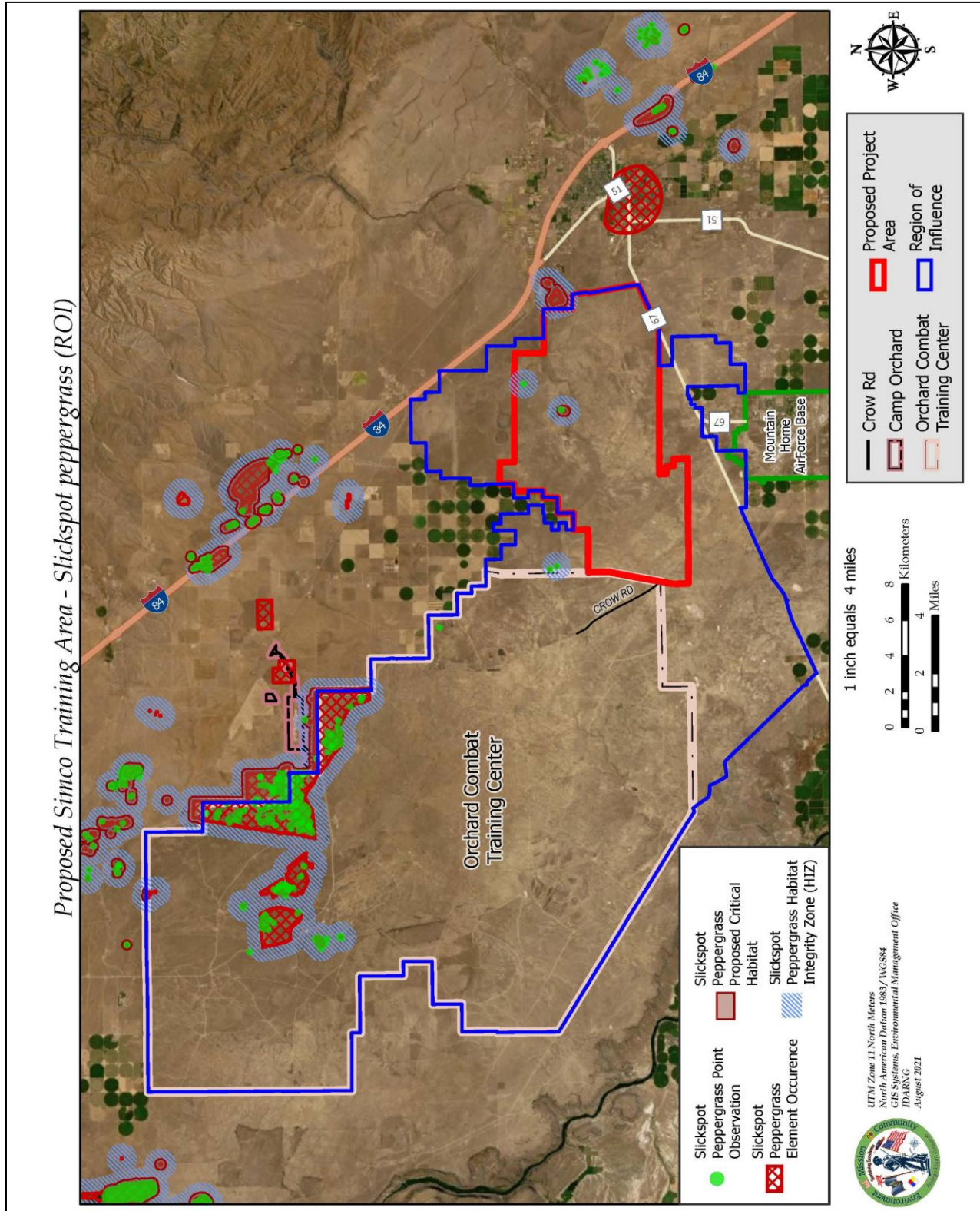
36 PCH for the species has been identified across its range, and a small portion (82 acres) occurs  
37 within the ROI, specifically within the proposed project area in association with EO2 (Map 16).  
38 Proposed Critical Habitat does not occur within the OCTC due to exclusion under the IDARNG’s  
39 INRMP and associated Endangered Species Management Plan (76 *Federal Register* (FR) 90, page  
40 19), as specified by the National Defense Authorization Act of 2004. As part of the Proposed

1 Action, the IDARNG’s INRMP and all the conservation measures for slickspot peppergrass  
 2 therein, including the Threatened and Endangered Species Management Plan, would be applied  
 3 within the proposed project area.

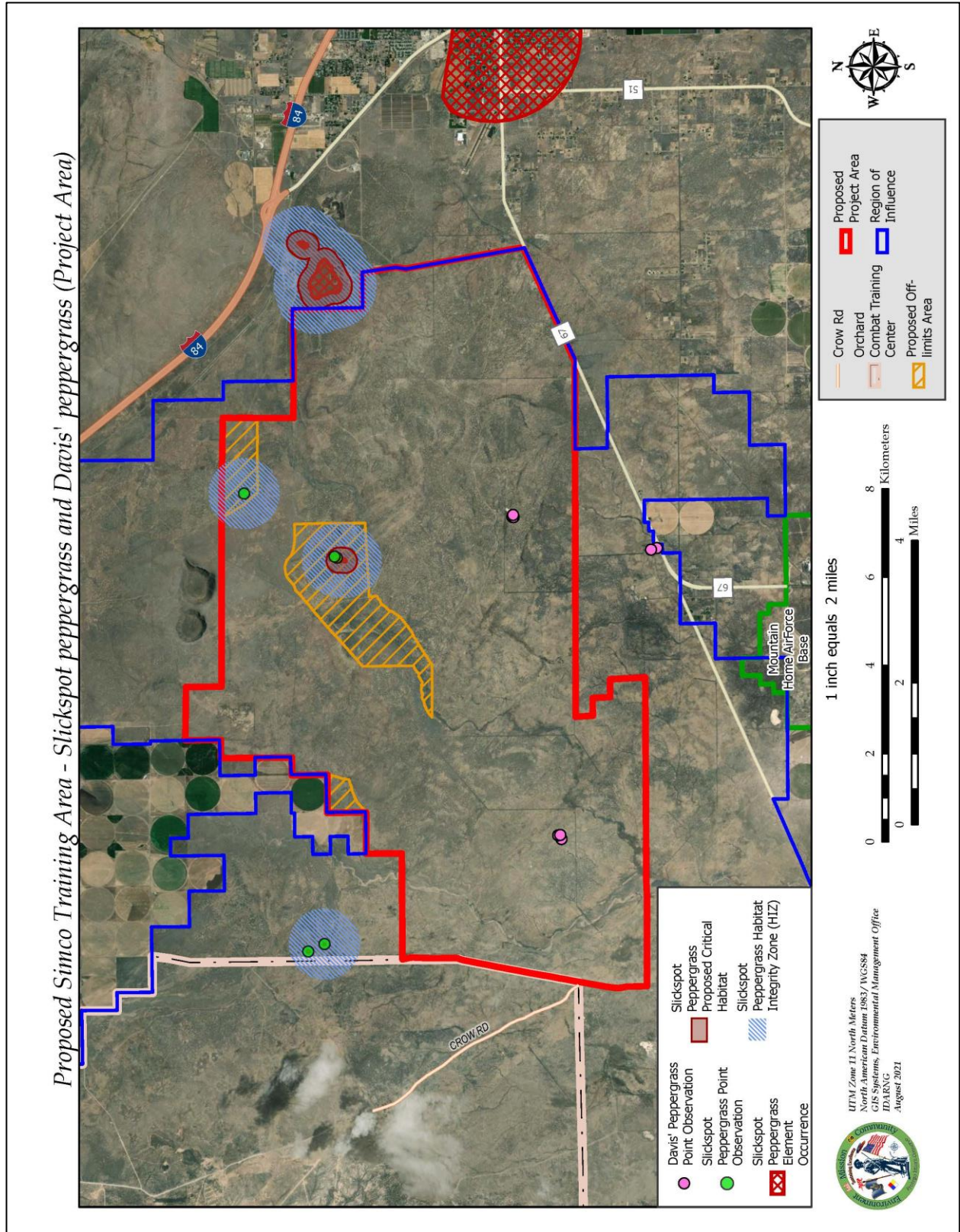
4 **Table 3-12. EO Rankings, Size, and Description of Slickspot Peppergrass EOs within the**  
 5 **ROI**

<b>EO Number – Name</b>	<b>Size (acres)</b>	<b>EO Rank</b>	<b>Highest Recorded Number of Plants</b>	<b>Rank Description</b>
EO2 – Crater Rings	2.5	C	117	Fair estimated viability: partially intact native plant community, moderate to high nonnative plant cover, moderate to high human disturbance
EO – Undefined	0.5	N/A	100 <sup>a</sup>	N/A
EO27 – Orchard National Guard Training Area	5,811	B	26,423	Good estimated viability: intact native plant community, low to moderate nonnative plant cover, low to moderate human disturbance
EO53 – Christmas Mountain	40	B	2,100	Good estimated viability: intact native plant community, low to moderate nonnative plant cover, low to moderate human disturbance
EO67 – North Edge of Orchard Training Area	10	B	2,935	Good estimated viability: intact native plant community, low to moderate nonnative plant cover, low to moderate human disturbance

<sup>a</sup> As per Ecosystem Sciences 2017b.



1  
 2 **Map 15. Region of Influence for Special-Status Plant Species, Including Slickspot Peppergrass**  
 3 **Observation Points, Element Occurrences, Habitat Integrity Zone, and Proposed Critical Habitat**  
 4 **for the Species**



1  
2 **Map 16. Slickspot Peppergrass Observation Points, Element Occurrences, Habitat Integrity Zone,**  
3 **and Proposed Critical Habitat within the Proposed Project Area**

1 Physical and biological features of critical habitat are essential to the conservation of the species.  
2 The physical and biological features identified for slickspot peppergrass include the following:

- 3 • Ecologically functioning slick spots
- 4 • Relatively intact native Wyoming big sagebrush vegetation assemblages
- 5 • A diversity of native flowering plants to provide for pollinators
- 6 • Sufficient pollinators for successful fruit and seed production

7 Slickspot peppergrass relies primarily on cross-pollination to reproduce and maintain genetic  
8 diversity, which requires availability of invertebrate pollinators (Robertson and Klemash 2003;  
9 Robertson and Leavitt 2011). In general, slickspot peppergrass can be pollinated by a wide suite  
10 of invertebrates.

11 Best available data suggest that slickspot peppergrass abundances have significantly declined over  
12 the last three decades (74 FR 52025; Bond 2017), with as much as a 27 percent estimated annual  
13 decline in some population regions. Slickspot peppergrass is tightly associated with Wyoming big  
14 sagebrush ecological site conditions and a dominant overstory of Wyoming big sagebrush cover,  
15 and the species requires the presence of intact slick spot microsites to persist. Frequent wildland  
16 fires have dramatically changed the vegetation landscape within the species' range, converting  
17 intact Wyoming big sagebrush communities to nonnative annual grass and forbs. In addition to  
18 nonnative species, co-occurrence with harvester ants (in other words, seed predators) and livestock  
19 grazing have been associated with reductions in slickspot peppergrass abundance (Bond 2017).

20 The vegetation within the proposed project area is dominated by nonshrub species, including  
21 native perennial bunchgrasses (Sandberg bluegrass) and nonnative annual grasses and forbs. Other  
22 nonshrub cover types include disturbed areas of bare ground (for example, roads and trails) and  
23 nonnative annual forbs (*Brassicaceae spp.* and Russian thistle). As a result of frequent wildland  
24 fires, there are only sparse pockets of shrubs within the proposed project area consisting primarily  
25 of degraded sagebrush habitat with an understory of cheatgrass, most of which occurs along the  
26 Canyon Creek drainage. Frequent historic wildland fires and the invasion of nonnative annual  
27 species are the greatest threats to the species and PCH across its range and within the ROI  
28 (USFWS 2020a). For expanded details of the soils, vegetation community, and wildland fire  
29 history within the ROI, refer to **Sections 3.6.1** and **3.6.3**, respectively.

30 Public recreation (**Section 3.2.3**) and livestock grazing (**Section 3.2.1**) are the current primary uses  
31 within the proposed project area and can pose threats to slickspot peppergrass and its habitat.  
32 Recreation can lead to increased occurrences of soil damage from off-road vehicle use as well as  
33 increased rates of wildland fire. According to a study published in the Proceedings of the National  
34 Academy of Sciences of the United States of America, human-caused wildland fires can account  
35 for up to 84 percent of all wildland fires and 44 percent of total area burned from wildland fires  
36 (Balch et al. 2017). In 2018, public shooting-related fires in Idaho accounted for approximately  
37 60 percent of the BLM's human-caused wildland fires (BLM 2019a).

1 Currently, livestock occur throughout slickspot peppergrass occupied habitat seasonally  
 2 (**Section 3.2.1**). Livestock may affect the species by trampling plants or creating penetrating hoof  
 3 prints when soils are saturated, rendering slick spot micro sites nonfunctional. Slick spots within  
 4 occupied habitat of the proposed project area show signs of hoof damage (Ecosystem  
 5 Sciences 2017b) and are also often infiltrated by nonnative annuals. The BLM’s 2008 NCA RMP  
 6 Final EIS addresses effects of public land use and livestock grazing within the proposed project  
 7 area on slickspot peppergrass.

8 **Table 3-13. Summary of Slickspot Peppergrass Habitat Types within the ROI and**  
 9 **Proposed Project Area**

Slickspot Peppergrass Habitat Types		Acres within the ROI	Acres within the Proposed Project Area	Percent of Total Habitat That Occurs within the Proposed Project Area <sup>a</sup>
Occupied Habitat	EO	5,864	3	< 1
	HIZ	10,923	1,274	12
Slickspot Peppergrass Habitat		14,079	0	0
Unoccupied Habitat <sup>b</sup>		43,322	23,908	55
Nonhabitat		136,318	3,248	2
<b>Total</b>		<b>210,506</b>	<b>28,433</b>	<b>14</b>

<sup>a</sup> This column represents the proportion of each slickspot peppergrass habitat type present in the ROI that occurs within the proposed project area. For example, of the 5,864 acres of EOs that occur within the ROI, less than 1 percent is within the proposed project area.

<sup>b</sup> Unoccupied habitat includes all areas previously identified as slickspot peppergrass habitat that have been surveyed to Stage 3 standards and surveyed IDL-managed lands where no observations of the species were made, based on best available IDARNG and BLM data.

10 **Davis’ Peppergrass**

11 Davis’ peppergrass (*Lepidium davisii*) is endemic to southeastern Oregon, southwestern Idaho,  
 12 and north central Nevada. Known populations occur in Ada, Elmore, Owyhee, and Twin Falls  
 13 Counties in Idaho, and in adjacent Malheur County (Oregon) and Elko County (Nevada). The plant  
 14 is a deep-rooted perennial that forms low (4 to 8 centimeters in height) clumps in large well-defined  
 15 playas scattered across the Snake River Plain. Davis’ peppergrass is adapted to survive both  
 16 seasonal flooding and prolonged hot dry summers and drought due to its large taproot, which often  
 17 extends for more than 12 inches into the playas that it occupies. Major threats to the species include  
 18 livestock trampling, OHV disturbance, and both invasive and noxious weed encroachment  
 19 (Moseley 1995). The populations of Davis’ peppergrass observed occur on two playas measuring  
 20 4.6 acres and 6.5 acres (Ecosystem Sciences 2017a; Appendix H).

1 ***Environmental Consequences – Threatened, Endangered, or Special-Status Species (Plants)***

2 The 2021 BA provides a detailed analysis of the effects of the Proposed Actions (Alternatives A  
3 and B) to slickspot peppergrass and slickspot peppergrass PCH (Appendix E). The assessment  
4 considered an alternatives scenario with the highest level of surface and vegetation disturbance to  
5 provide the most comprehensive analysis for potential impacts to slickspot peppergrass and PCH  
6 for the species. The assessment ultimately found that actions under the Proposed Action may  
7 affect, but are not likely to adversely affect, slickspot peppergrass or its PCH. The USFWS  
8 concurred with this finding on September 28, 2021 (Appendix E). The sections that follow  
9 summarize the effects detailed in the assessment as well as the impacts associated with Davis’  
10 peppergrass.

11 **Issue Statements:** How would ground disturbance affect the current and continued persistence of  
12 slickspot peppergrass, its pollinators, and its PCH within the proposed project area?

13 How would ground disturbance affect the current and continued persistence of Davis’ peppergrass  
14 within the proposed project area?

15 **Indicators:** Impact indicators for this resource include the number of acres of disturbance within  
16 slickspot peppergrass occupied habitat and PCH and occupied Davis’ peppergrass habitat.

17 **Significance Criteria:** Any action resulting in take of slickspot peppergrass or the adverse  
18 modification of PCH for the species. Any action resulting in the ESA listing of Davis’ peppergrass.

19 **Short Term:** Effects expected to last no more than one growing season (1 water year).

20 **Long Term:** Effects expected to last more than one growing season.

21 **Local:** Effects expected to occur within direct proximity (less than 100 meters) to the disturbance.

22 **Landscape:** Effects expected to occur within a greater distance (more than 100 meters) from the  
23 disturbance.

24 **Region of Influence:** The ROI for special-status plant species includes the proposed project area,  
25 all of the OCTC, and BLM NCA Management Area 3.

26 ***Effects of the No Action Alternative – Threatened, Endangered, or Special-Status Species***  
27 ***(Plants)***

28 Implementation of the No Action Alternative would have no impacts to slickspot peppergrass and  
29 Davis’ peppergrass or their habitats within the ROI. Authorized uses and their impacts to these  
30 species and their habitat, as described in the Affected Environment, including public recreation  
31 (including OHV use), military training within the OCTC, and livestock grazing, would continue  
32 at their current levels within the ROI.



1 *Effects of Alternative A – Threatened, Endangered, or Special-Status Species (Plants)*

2 **Slickspot Peppergrass**

3 Under Alternative A, short- and long-term, local, less than significant adverse effects to slickspot  
4 peppergrass, specifically to habitat for potential slickspot peppergrass pollinators, would occur  
5 during ground-disturbing activities associated with infrastructure construction and military  
6 training. Adverse impacts at the landscape level are not likely to occur. Adverse impacts to PCH  
7 for the species are not likely to occur. Long-term beneficial effects to slickspot peppergrass and  
8 PCH through implementation of SOPs that require noxious weed monitoring and treatment,  
9 seeding disturbed areas with native or desirable nonnative species, and annual monitoring of  
10 slickspot peppergrass populations as well as an increase in wildland firefighting assets would  
11 occur.

12 Under Alternative A, all current and ongoing effects to slickspot peppergrass described in the  
13 Affected Environment would continue at their current levels with the exception of wildland fire  
14 frequency, which may be reduced. For an explanation of the effects Alternative A may have on  
15 wildland fire, refer to **Section 3.6.3**.

16 Under Alternative A, approximately 2,040 acres would be off limits to all construction and military  
17 training activities to protect slickspot peppergrass occupied habitat and the vast majority of  
18 relatively intact sagebrush left within the proposed project area. The construction of three assembly  
19 areas and annual engineering tasks during military training (dig sites) would result in long- and  
20 short-term adverse impacts to vegetation and soils locally, but those effects would occur entirely  
21 within unoccupied habitat or outside of potential habitat for the species. Given the location and  
22 limited spatial reach of the impacts associated with these projects, as well as SOPs and BMPs in  
23 place to restore temporarily disturbed engineering sites, these projects would have no effect on the  
24 species or its PCH and are therefore not discussed further in this section.

25 Of the remaining projects under the Proposed Action, no disturbance would occur within slickspot  
26 peppergrass EOs or within PCH. The closest disturbance to a slickspot peppergrass EO would be  
27 maneuver training operations with the potential to occur no more than 180 meters (590 feet) away,  
28 and impacts would be short term in nature. Therefore, no direct effects to the species (for example,  
29 damage to or loss of slickspot peppergrass plants) or PCH (for example, direct disturbance to the  
30 physical and biological features) are anticipated under the Proposed Action. Outside of EOs and  
31 PCH, actions that would occur within the HIZ include road widening and improvement, pipeline  
32 trenching, and maneuver training operations.

33 Short-term, local adverse impacts to potential slickspot peppergrass pollinator habitat (in other  
34 words, HIZ) would be possible resulting from construction activities associated with the proposed  
35 road improvement and pipeline trenching (with disturbance attributed to construction vehicles  
36 outside of the project footprint) and maneuver training. In total, impacts associated with  
37 construction activities would affect 5 acres of vegetation within the HIZ (Table 3-14) and are  
38 assumed to occur only once at the time of construction. As described in the soils and vegetation  
39 sections (**Section 3.5.2** and **3.6.1**, respectively), maneuver training operations are anticipated to

1 infrequently result in small areas of exposed soil annually due to individual vehicles making sharp  
2 turns or when vehicle tracks overlap multiple times.

3 Short-term impacts to potential slickspot peppergrass pollinator habitat from construction and  
4 annual maneuver training operations would include the temporary crushing or removal of  
5 vegetative cover and disturbance to the physical and biological soil surface, resulting in the soils  
6 being exposed and more susceptible to the establishment of noxious weed and nonnative annual  
7 species. Given the nature of military training exercises, it is impossible to predict exactly where  
8 maneuver impacts will occur within the proposed project area and, specifically, whether these  
9 impacts would occur within the HIZ. The area of HIZ that overlaps with potential heavy maneuver  
10 areas (544 acres) accounts for 0.07 percent of the total trainable space within the proposed project  
11 area (area available for maneuver training operations), resulting in potential impacts from  
12 maneuver training that would occur within the HIZ.

13 Postconstruction and postmilitary training rehabilitation BMPs identified in Appendix G requiring  
14 reseeded with a native or desirable nonnative species seed mix and periodic rest of disturbed areas  
15 would be implemented to manage the potential for adverse soil and vegetation impacts and ensure  
16 impacts (exposed soils) last less than one growing season, reducing the chance for nonnative  
17 species establishment. Interannual climatic variability may influence rehabilitation success and  
18 timing. However, under requirements of the BMPs, repeat intervention would be performed until  
19 desired conditions have been met (soil stability and a return to pre-disturbance vegetation  
20 conditions), ensuring effects do not persist.

21 Long-term, local adverse impacts to potential slickspot peppergrass pollinator habitat (HIZ) would  
22 occur resulting from the proposed road improvements. In total, the proposed road improvement  
23 (**Section 2.3.6**) would permanently disturb 2 acres of vegetation within the HIZ (Table 3-14),  
24 removing existing vegetation and replacing it with a hardened, unvegetated surface. Vegetation  
25 within the HIZ may serve as habitat for potential slickspot peppergrass pollinators, and the removal  
26 of that vegetation would result in local and long-term effects to slickspot peppergrass by reducing  
27 the diversity and density of pollinators for nearby occupied habitat permanently. Reduced  
28 pollinator diversity and density could result in decreased fruit production and future plant  
29 propagation for nearby slickspot peppergrass populations. The vegetation cover proposed to be  
30 permanently lost within the HIZ under the Proposed Action is primarily perennial grass with very  
31 little native or nonnative forb cover, making it unlikely to support slickspot peppergrass  
32 pollinators. The remaining 542 acres (> 99 percent) of the HIZ within the proposed project area  
33 that would remain without any permanent impacts from road improvement construction includes  
34 several large pockets of nonnative annual forbs that likely provide essential pollinator habitat for  
35 the adjacent slickspot peppergrass occurrences.

1 **Table 3-14. Projected Amount (in Acres) of Long- and Short-Term Vegetated Land**  
 2 **Disturbance of All Projects Within and Outside Slickspot Peppergrass Habitat Types**

Slickspot Peppergrass Habitat Types		Long-term Impacts (Construction)	Short-term Impacts		Projected Total Impact (Long and Short Term)
			Construction Activities (One-time Impact)	Dig Sites (Annual Impact)	
Occupied Habitat	EO	0	0	0	0
	HIZ	2	5	0	7
Slickspot Peppergrass Habitat		0	0	0	0
Proposed Critical Habitat		0	0	0	0
Unoccupied Habitat <sup>a</sup> or Nonhabitat		107	56	30	193
<b>TOTAL</b>		<b>109<sup>b</sup></b>	<b>61</b>	<b>30</b>	<b>200</b>

<sup>a</sup>Unoccupied habitat includes all areas previously identified as slickspot peppergrass habitat that have been surveyed to Stage 3 standards and surveyed IDL-managed lands where no observations of the species were made.

<sup>b</sup> Acreage only includes areas with vegetation cover and does not include bare ground (associated with the existing two-track road).

3 Long-term, landscape-scale impacts to vegetation communities from repeated maneuver training  
 4 operations should also be considered because they pertain to slickspot peppergrass persistence and  
 5 functionality of the PCH. For instance, landscape-level changes from native to a  
 6 nonnative-dominant community type may affect the fire risk of EOs within and adjacent to the  
 7 proposed project area. For a detailed analysis of the potential long-term impacts of maneuver  
 8 training operations on vegetation communities throughout the proposed project area, refer to  
 9 **Section 3.6.1**. In general, landscape-level change in vegetation community due to maneuver  
 10 training operations is not supported by best available data and therefore does not pose a long-term,  
 11 landscape-scale effect to slickspot peppergrass and PCH for the species.

12 Under Alternative A, approximately 23 km (14 miles) of livestock fencing would be removed and  
 13 6.5 km (4 miles) would be added within the ROI, for a net decrease of 16.5 km of fencing overall.  
 14 None of the fencing construction or removal would occur inside occupied habitat, resulting in no  
 15 effect to the species or to potential pollinators from construction. Fencing can catch dried plant  
 16 material (for example, Russian thistle) and pose a significant wildland fire risk as a continuous  
 17 linear fuel source across a comparably sparsely vegetated landscape. A net decrease in fencing on  
 18 the landscape would reduce the overall wildland fire risk to occupied habitat within and adjacent  
 19 to the proposed project area, though not substantially (**Section 3.6.3**). The IDARNG would gain  
 20 first response capabilities within the area to provide supplemental wildland firefighting assets  
 21 during and outside of military training seasons, which would provide additional protections to

1 occupied habitat within and adjacent to the proposed project area. According to long-term  
2 IDARNG wildland fire data (IDARNG 2020c), there have been no recorded fires attributed to  
3 maneuver training operations, and no live fire munitions training will be conducted within the  
4 proposed project area, thus not posing an increased wildland fire risk to slickspot peppergrass or  
5 its PCH.

6 Proposed Critical Habitat occurs within the proposed project area in association with EO2  
7 encompassing approximately 82 acres (Map 16). The entirety of the PCH would be included in  
8 proposed off-limits areas; therefore, no construction projects or military training activities would  
9 occur within the PCH. Maneuver training operations would be the closest disturbance under the  
10 Proposed Action and could occur no closer than 240 meters (787 feet) from the nearest PCH  
11 boundary. Other than potential beneficial impacts of increased wildland fire suppression under  
12 Alternative A, there are no effects to PCH.

13 Finally, BMP and SOPs (Appendix G) mandating noxious weed monitoring, treatment, and  
14 postdisturbance rehabilitation, along with active habitat restoration, would result in a higher  
15 percentage of desirable plant species within and adjacent to occupied habitat over time. In addition,  
16 slickspot peppergrass and vegetation community monitoring that the INRMP outlines  
17 (IDARNG 2021) would be applied to the species populations within the proposed project area.  
18 These SOPs and monitoring efforts would result in long-term, local beneficial impacts to slickspot  
19 peppergrass and the PCH.

## 20 **Davis' Peppergrass**

21 Long- and short-term impacts to Davis' peppergrass associated with military training activities  
22 would be localized and mostly beneficial. There would be no physical disturbance of Davis'  
23 peppergrass plants or Davis' peppergrass habitat (playas) during construction, training operation,  
24 or maintenance activities because the occupied sites would be avoided by implementing IDARNG  
25 SOPs (Appendix G). These SOPs include the use of visual barriers around the perimeter of the two  
26 occupied playas within the proposed project area and integration of the off-limits areas into the  
27 IDARNG's JBCP to protect the species and its habitat.

28 Under Alternative A, the IDARNG's requirements outlined in the INRMP would require annual  
29 monitoring, noxious weed management and control, active habitat restoration projects when  
30 funding and need permit, and supplemental wildland fire suppression. These would result in less  
31 disturbance (wildland fire) and supplemental conservation-based management activities over time,  
32 as the INRMP provides, beyond current BLM and IDL efforts.

33 Alternatively, short- and long-term impacts from existing uses such as livestock grazing and OHV  
34 activities would be similar to the No Action Alternative. Signage and visual barriers around the  
35 playas, as well as limited (30-day) closure of the area, may reduce impacts from OHV users, but  
36 livestock impacts would not change because there would be no physical barrier to prevent them  
37 from accessing the playa.

1 **Slickspot Peppergrass and Davis' Peppergrass**

2 Given the limited spatial extent of the aforementioned short- and long-term local adverse impacts  
3 to potential slickspot peppergrass pollinator habitat (HIZ) from construction and military training,  
4 the implementation of BMPs requiring both onsite postdisturbance rehabilitation to reduce the  
5 duration of exposed soils and subsequent invasion of nonnative vegetation and offsite  
6 enhancement to mitigate permanent impacts, and concurrence received from the USFWS, adverse  
7 impacts to slickspot peppergrass, including take or adverse modifications to PCH for the species,  
8 are not likely to occur. Therefore, impacts to slickspot peppergrass under the Alternative A will be  
9 less than significant.

10 Given the implementation of off-limits areas to protect Davis' peppergrass plant and habitat  
11 (playas), adverse impacts leading to the ESA listing of the species are not likely to occur.  
12 Therefore, adverse impacts to Davis' peppergrass will be less than significant.

13 No mitigation measures would be necessary to reduce any adverse environmental impacts to below  
14 significant levels. However, implementation of SOPs and BMPs (Appendix G) during  
15 construction and military training activities would manage adverse less than significant impacts.

16 *Effects of Alternative B – Threatened, Endangered, or Special-Status Species (Plants)*

17 **Slickspot Peppergrass**

18 Effects under Alternative B would be nearly identical to those anticipated under Alternative A  
19 except in the cases described in the following paragraphs. As such, short-term and long-term, local,  
20 less than significant adverse effects to slickspot peppergrass, specifically to habitat for potential  
21 slickspot peppergrass pollinators, would occur during ground-disturbing activities associated with  
22 infrastructure construction and military training. Adverse impacts at the landscape level are not  
23 likely to occur. Adverse impacts to PCH for the species are not likely to occur. Long-term  
24 beneficial effects to slickspot peppergrass and PCH through implementation of SOPs that require  
25 noxious weed monitoring and treatment, seeding disturbed areas with native or desirable nonnative  
26 species, and annual monitoring of slickspot peppergrass populations as well as an increase in  
27 wildland firefighting assets would occur.

28 Activities that may affect wildland fire risk to slickspot peppergrass, habitat for potential slickspot  
29 peppergrass pollinators (HIZ), and PCH under Alternative B vary from Alternative A in the  
30 location and extent of potential effects associated with the total linear feet of fence on the landscape  
31 and the wildland fire risk fencing poses within and adjacent to the proposed project area  
32 (**Section 3.6.3**). Under Alternative B, an additional 9,760 linear feet (approximately 2 miles) of  
33 fencing would be added as part of the Cultural Site Protection Plan, which would result in an  
34 overall net decrease of 43,505 feet (8.2 miles) of fencing within the ROI, as compared to  
35 53,265 feet (10.1 miles) under Alternative A. As stated in the effects of Alternative A, a net  
36 decrease in fencing on the landscape would reduce the overall wildland fire risk to occupied habitat  
37 within and adjacent to the proposed project area, though not substantially. While dig sites on  
38 BLM-lands would be fixed to a predefined 1,100-acre area under Alternative B, these fixed areas  
39 do not occur within occupied habitat for slickspot peppergrass or PCH for the species and would  
40 therefore have no effect.

1 Given the same justification as presented under Alternative A, adverse impacts to slickspot  
2 peppergrass, including take or adverse modifications to PCH for the species, are not likely to occur.  
3 Therefore, impacts to slickspot peppergrass under Alternative A will be less than significant.

#### 4 **Davis' Peppergrass**

5 Impacts under Alternative B would be the same as Alternative A.

### 6 **3.6.3 Wildland Fire**

7 Prior to western settlement, the natural fire return intervals (years between fire) in Wyoming big  
8 sagebrush communities, which once dominated most of the Snake River Plain, were variable and  
9 ranged from 60 to 110 years with an average for stand replacement of 92 years (Whisenant 1990).  
10 With ever-decreasing fire return intervals and the rapid establishment of invasive nonnative annual  
11 species, wildland fire continues to be one of the largest threats to biodiversity in the Snake River  
12 Plain.

13 Frequent wildland fires and other disturbances have converted the majority of the Snake River  
14 Plain from native sagebrush habitat to a nonnative annual dominated system. According to the best  
15 available BLM fire history data (2019b), more than 59 percent of the BLM NCA has burned  
16 between 1957 and 2019, and 30 percent has burned two or more times during that period.

#### 17 *Affected Environment – Wildland Fire*

18 The ROI for wildland fire includes the OCTC, the proposed project area, and the rest of BLM's  
19 NCA Management Area 3. The fire season in the ROI typically starts in May and ends in  
20 mid-October. Fires can occur as early as March and as late as December in dry years. According  
21 to the best available BLM fire history data (2019b), there have been a total of 150 wildland fires  
22 in the ROI over the last 62 years (1957-2019). The majority of burns documented within the OCTC  
23 occurred prior to the implementation of the IDARNG Integrated Wildland Fire Management  
24 Program in 1987. Since the implementation of the IDARNG's fire program, there have been  
25 30 fires outside the Impact Area, averaging 50 acres or less in size (Map 17). Based on existing  
26 wildland fire records, none of these fires were attributed to maneuver training activities (2019b).

27 The historical fires do not include wildland fires within the Impact Area. All live fire and explosive  
28 training exercises are conducted within this area, so it has been designed to burn in a controlled  
29 manner (with gridded fuel breaks and access roads throughout surrounded by a 50-foot wide  
30 graveled road). On average, there are more than 250 fires within the Impact Area annually, with  
31 an average size of 75 square feet or 0.002 acre, and an average response time between 1.5 and  
32 2.25 minutes for wildland firefighters (IDARNG 2013).

33 Of the total ROI, 120,762 acres (57 percent) has burned at least once, with 27 percent having  
34 burned more than once. Of the 89,744 acres of unburned area within the ROI, the majority occurs  
35 within the boundaries of OCTC (Map 17). Of the total proposed project area, nearly the entire area  
36 has burned at least once, with only 283 acres (1 percent) having never burned. The majority of the  
37 area, 20,038 acres or 70 percent, has burned at least two times (Table 3-15). The average amount

1 of time between fires occurring within the proposed project area is 3 years (in other words, on  
2 average, every 3 years, some portion of the proposed project area has experienced a burn). The  
3 longest time between fires occurring within the proposed project area is 11 years and the shortest  
4 is zero (in other words, multiple fires occurred within the proposed project area in the same year,  
5 though they did not necessarily overlap).

6 As outlined in **Section 3.6.1**, the majority (62 percent) of the proposed project area is made up of  
7 communities with limited fuels and large expanses of interspace (bare ground) between plants,  
8 which reduces the potential for ignition and the ability of a wildland fire to carry over larger  
9 distances. Specific communities identified include Sandberg bluegrass with bare ground interspace  
10 (26 percent), bare ground or sparse nonnative annuals (18 percent), nonnative annual forbs  
11 (8 percent), forage kochia (7 percent), and winterfat with bare ground or Sandberg bluegrass  
12 understory (3 percent). However, Russian thistle also dominates the majority of the site in the  
13 summer and fall. This species breaks off and accumulates along fence lines, considerably  
14 increasing the amount and connectivity of fuels in those areas (Whitson et al. 2002).

15 Control of wildland fire in these mostly altered communities is more effective with the use of  
16 established and maintained roads to increase accessibility to the entire area, reduce fuel  
17 connectivity, and increased safety during controlled back burns and prescribed fires  
18 (Weir et al. 2017). Currently, Simco Road and Crow Road are the only hardened existing roads  
19 within the proposed project area. Aside from these two existing roads, all other roads within the  
20 proposed project area are primitive two-track roads. These two-track road considerably limit the  
21 speed at which a wildland fire vehicle can travel through the majority of the area to a site. These  
22 two-track roads are also not wide enough to act as an effective fuel break or safety corridor for  
23 back burns or prescribed burns because the amount of bare ground is limited, with 3 to 4 feet of  
24 bare ground total.

25 The BLM is currently the primary responsible party for wildland fire suppression within the  
26 proposed project area. However, the Mountain Home Fire District and Orchard Fire Station can  
27 support the BLM, if requested, and both are closer to the proposed project area. Currently, the  
28 IDARNG has a first response agreement with the BLM for suppression efforts within the OCTC.  
29 Because of the implementation of the Integrated Wildland Fire Management Program, the  
30 IDARNG has been able to keep fires that happen outside of the Impact Area but within the OCTC  
31 relatively small in comparison to fires that occur outside of the OCTC boundaries. Since the  
32 IDARNG's wildland fire plan was fully implemented in 1987, the median fire size within the  
33 OCTC is 126 acres, while the median fire size in the surrounding NCA outside the OCTC has been  
34 916 acres.

1 **Table 3-15. Wildland Fire History Within the ROI and Proposed Project Area**

Number of Times Burned	Acres Burned in ROI	Percent ROI	Acres Burned in Proposed Project Area	Percent Proposed Project Area
0	89,744	43	283	1
1	64,290	31	8,112	29
2	32,941	16	11,376	40
3	17,998	9	6,436	23
4	4,311	2	1,741	6
5	1,113	1	406	1
6	109	0	78	0
<b>Total</b>	<b>210,506</b>	<b>100</b>	<b>28,432</b>	<b>100</b>

2 Note:

3 Percentages may not equal 100 due to rounding.

4 The majority of the existing fence within both  
 5 the ROI and proposed project area is  
 6 four- and five-strand barbed wire with metal  
 7 T-posts (Figure 3-1). A total of  
 8 922,397-linear feet of fence exists within the  
 9 ROI. Table 3-16 shows a breakdown of linear  
 10 feet of fence by ownership. Of that total,  
 11 814,309 linear feet of fence within the ROI is  
 12 within the NCA. Fencing within the proposed  
 13 project area consists of 121,889 linear feet on  
 14 BLM/BOR land managed by BLM and  
 15 132,511 linear feet on IDL-, military-, or  
 16 privately managed land, totaling  
 17 254,400 linear feet. Of the total  
 18 922,397 linear feet of fence within the ROI,  
 19 254,400 linear feet (28 percent) occurs within  
 20 the proposed project area.



**Figure 3-1. Fence Line Showing Fuels Accumulation**

21 There are 736,219 total linear feet of fence on BLM-managed land within the ROI, and  
 22 121,889 linear feet (17 percent) occurs within the proposed project area. Of the total 814,309 linear  
 23 feet of fence that occurs in the NCA, 183,040 linear feet (22 percent) occurs within the proposed  
 24 project area (Table 3-17 and Table 3-17).



1

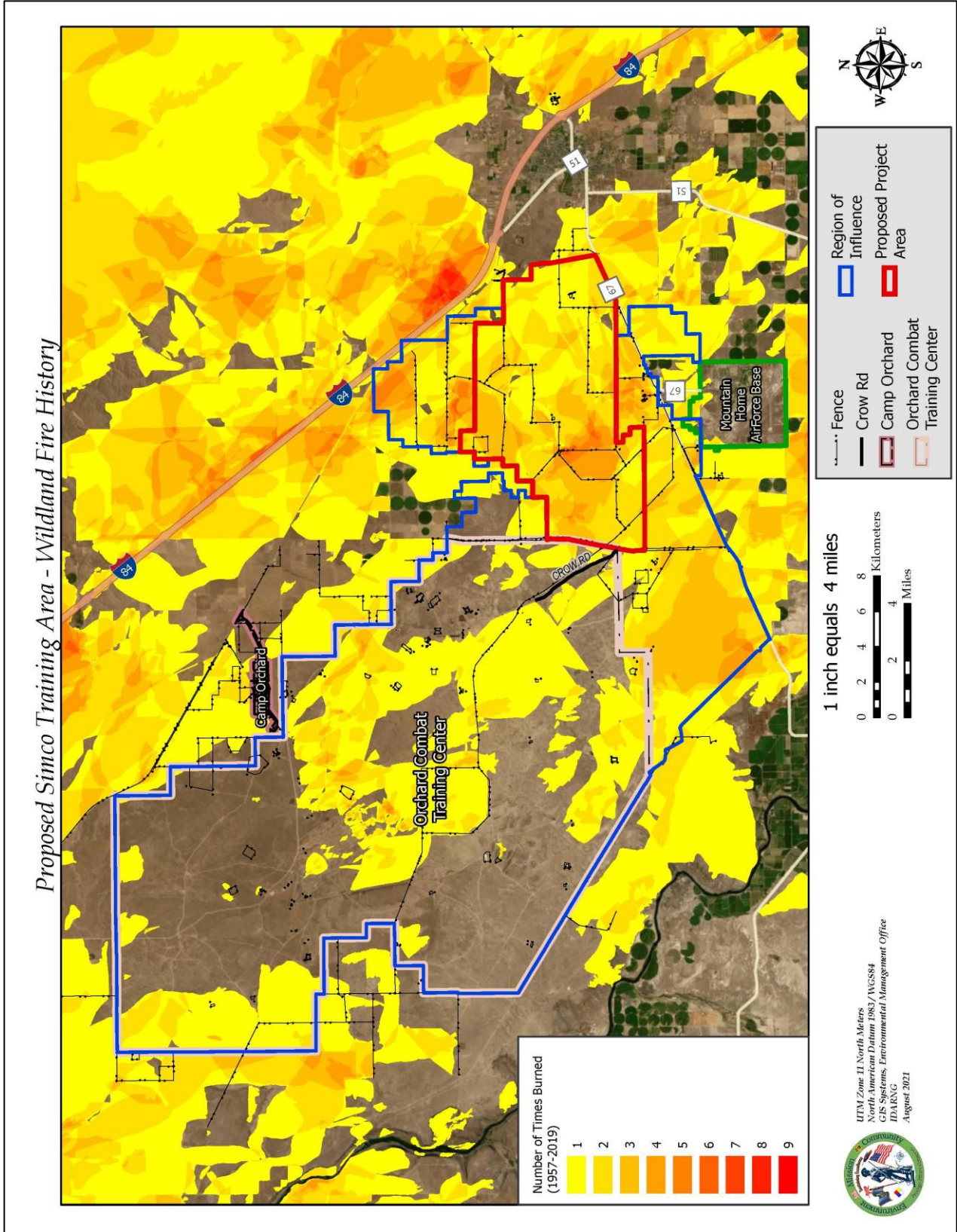
**Table 3-16. Current Fencing Condition by Ownership**

<b>Ownership</b>	<b>ROI (Linear Feet of Fence)</b>	<b>Proposed Project Area (Linear Feet of Fence)</b>	<b>Percent of Fence Within Proposed Project Area</b>
BLM/BOR	736,219	121,889	17
IDL/Military/Private	186,177	132,511	71
<b>Total</b>	<b>922,397</b>	<b>254,400</b>	<b>28</b>

2

**Table 3-17. Current Fencing Condition Within and Outside NCA**

<b>NCA Status</b>	<b>ROI (Linear Feet of Fence)</b>	<b>Proposed Project Area (Linear Feet of Fence)</b>	<b>Percent of Fence Within Proposed Project Area</b>
Within NCA	814,309	183,040	22
Outside NCA	108,087	71,360	66
<b>Total</b>	<b>922,397</b>	<b>254,400</b>	<b>28</b>



1  
2 **Map 17. Wildland Fire Occurrences From 1964 to 2019 in the ROI**

1 **3.6.4 Environmental Consequences – Wildland Fire**

2 **Issue Statement:** How would infrastructure changes from the Proposed Action affect wildland  
3 fire risk?

4 **Indicators:** Linear feet of fencing to be removed or added

5 **Significance Criteria:** Any action that would appreciably increase the amount or connectivity of  
6 fuels in the area, diminish the resources available for wildland fire suppression, or limit  
7 accessibility of the wildland fire assets.

8 **Short Term:** Single wildland fire season (1 year)

9 **Long Term:** Greater than 1 year

10 **Region of Influence:** The ROI for wildland fire includes the proposed project area, OCTC, and  
11 BLM’s NCA Management Area 3.

12 ***Effects of the No Action Alternative – Wildland Fire***

13 Under the No Action Alternative, the effects on wildland fires would be less than significant as  
14 there would be no increase in the amount or connectivity of fuels in the area, change in resources  
15 available for wildland fire suppression, or limited accessibility of the wildland fire assets within  
16 the ROI.

17 ***Effects of Alternative A – Wildland Fire***

18 Actions under Alternative A could have adverse effects associated with isolated increases in fuel  
19 amount and connectivity, as **Section 3.6.1** and this section describe. However, the majority  
20 (62 percent) of the proposed project area is made up of communities with limited fuels and large  
21 expanses of interspace (bare ground) between plants, which reduces the potential for ignition and  
22 the ability of a wildland fire to carry over larger distances. As such, impacts to wildland fire  
23 associated with changes in vegetation would be localized, primarily attributed to accumulation of  
24 Russian thistle on fence lines, but less than significant.

25 Reduced fences, increased resources (wildland fire assets for suppression and postfire restoration),  
26 and the establishment of an enhanced road allowing for greater accessibility for wildland  
27 firefighters and equipment and increased safety for back burns and prescribed fires would be  
28 beneficial in the short and long term, but would be less than significant.

29 Under Alternative A, the total linear feet of fence on BLM/BOR land managed by BLM within  
30 the ROI would be reduced by 4 percent (28,378 feet) and within the proposed project area by  
31 18 percent (21,613 feet). The linear feet of fence would be reduced on IDL-managed land within  
32 the ROI by 13 percent (24,887 feet) and within the proposed project area by 18 percent  
33 (24,358 feet). Linear feet of fence on the NCA within the ROI would be reduced by 4 percent  
34 (31,791 feet) and by 14 percent (24,983 feet) within the proposed project area. Linear feet of fence

1 outside the NCA within the ROI would be reduced by 20 percent (21,474 feet) and by 29 percent  
 2 (20,987 feet) within the proposed project area. Within the entire ROI, there would be an overall  
 3 decrease in linear feet of fence by 6 percent (53,265 feet). Within the proposed project area, there  
 4 would be an overall decrease in linear feet of fence of 18 percent (45,971 feet). This overall  
 5 decrease in linear feet of fence across all lands would reduce the fuel load on the landscape and  
 6 thus the wildland fire risk both within the proposed project area and the ROI under Alternative A  
 7 (Table 3-18 and Table 3-19).

8 The IDARNG would continue to implement its fire management program as it does on the OCTC,  
 9 responding to any fires that might occur (Integrated Wildland Fire Management Plan). The  
 10 IDARNG would also expand their current First Response Agreement for the OCTC to include the  
 11 proposed project area. The First Response Agreement states that if IDARNG is onsite and a  
 12 wildland fire occurs, IDARNG can initiate suppression activities until the arrival of BLM or  
 13 Elmore County resources. This would considerably increase the amount of available suppression  
 14 resources (equipment and staff) and reduce response time based on the proximity of the IDARNG  
 15 fire station.

16 Response time would be further decreased with the development of the 27 miles of improved road.  
 17 The road would allow for increased accessibility to the entire site for wildland fire vehicles,  
 18 equipment, and personnel, and would reduce overall response time associated with travel within  
 19 the proposed project area. The 30-foot width and lack of vegetation along the proposed improved  
 20 roads would allow these roads to also act as a fuel break, reducing fuel connectivity and slowing  
 21 the speed at which the fire spreads, thus allowing more time for fire assets to reach the fire  
 22 (Weir et al. 2017). The road would also be used as the primary safety zone for firefighters to  
 23 conduct back burn ignitions and prescribed burns.

24 During military training, no live ammunitions would be fired, leaving the only potential fire risk  
 25 outside of public use and natural events to the maneuvering of military vehicles. All military  
 26 training will follow existing SOPs and BMPs, which state fire assets will be onsite during all  
 27 training activities (Appendix G). Similar conditions are in place addressing construction-related  
 28 activities and wildland fires.

29 **Table 3-18. Overall Change in Fence across the ROI and Proposed Project Area by**  
 30 **Ownership**

	<b>BLM/BOR Linear Foot</b>	<b>Percent Change (BLM/ BOR)</b>	<b>IDL/ Military/ Private Linear Foot</b>	<b>Percent Change (IDL)</b>	<b>Total</b>	<b>Overall Percent Change</b>
Total Net Linear Foot Change (ROI)	-28,378	4	-24,887	13	-53,265	6
Total Net Linear Foot Change (Proposed Project Area)	-21,613	18	-24,358	18	-45,971	18

**Table 3-19. Overall Change in Fence across the ROI and Proposed Project Area Within and Outside the NCA**

	<b>NCA Linear Foot</b>	<b>Percent Change (NCA)</b>	<b>Outside NCA Linear Foot</b>	<b>Percent Change (Outside NCA)</b>	<b>Total</b>	<b>Overall Percent Change</b>
Total Net Linear Foot Change (ROI)	-31,791	4	-21,474	20	-53,265	6
Total Net Linear Foot Change (Proposed Project Area)	-24,983	14	-20,987	29	-45,971	18

***Effects of Alternative B – Wildland Fire***

Actions under Alternative B would be similar to Alternative A, except the fence lines within the BLM/BOR land managed by BLM within the ROI would be reduced by 2 percent (18,618 linear feet), and the fence lines within the proposed project area would be reduced by 9 percent (11,853 linear feet). Cultural off-limits areas will be fenced per the Cultural Protection Plan. However, even with these additional fences, the proposed project area would still have a net reduction in amount of fence. The linear feet of fence on IDL-managed land within the ROI would also be reduced by 13 percent (24,887 linear feet), and within the proposed project area by 18 percent (24,358 feet). Total linear feet of fence on the NCA within the ROI would be reduced by 3 percent (22,031 feet) and by 8 percent (15,224 feet) within the proposed project area. Linear feet of fence outside the NCA within the ROI would be reduced by 14 percent (15,661 feet) and within the proposed project area by 11 percent (15,175 feet). Within the entire ROI, there would be an overall decrease in fence lines by 4 percent (37,692 feet). Within the proposed project area, there would be an overall decrease in linear feet of fence of 12 percent (30,982 feet). This overall decrease in linear feet of fence across all lands would reduce the fuel load on the landscape and thus the wildland fire risk both within the proposed project area and the ROI under Alternative B (Table 3-20 and Table 3-21).

**Table 3-20. Overall Change in Fence Across the ROI and Proposed Project Area**

	<b>BLM/ BOR Linear Foot</b>	<b>Percent Change (BLM/ BOR)</b>	<b>IDL/ Military/ Private Linear Foot</b>	<b>Percent Change (IDL)</b>	<b>Total</b>	<b>Overall Percent Change</b>
Total Net Linear Foot Change (ROI)	-18,618	2	-24,887	13	-43,505	5
Total Net Linear Foot Change (Proposed Project Area)	-11,853	9	-24,358	18	-36,211	14

**Table 3-21. Overall Change in Fence Across the ROI and Proposed Project Area Within and Outside the NCA**

	<b>NCA Linear Foot</b>	<b>Percent Change (NCA)</b>	<b>Outside NCA Linear Foot</b>	<b>Percent Change (Outside NCA)</b>	<b>Total</b>	<b>Overall Percent Change</b>
Total Net Linear Foot Change (ROI)	-22,031	3	-15,661	14	-37,692	4
Total Net Linear Foot Change (Proposed Project Area)	-15,224	8	-15,175	11	-30,398	12

**3.7 BIOLOGICAL RESOURCES – WILDLIFE (SPECIAL-STATUS SPECIES AND MIGRATORY BIRDS)**

The majority (96 percent) of the ROI and the proposed project area (74 percent) is within the NCA, which supports one of the world’s densest populations of breeding raptors. The ROI for wildlife includes the proposed project area, NCA Management Area 3, and the OCTC (210,506 acres). Each spring, more than 700 pairs of raptors representing 16 species nest along 81 miles of the Snake River Canyon (BLM 2008b). This includes 150 to 200 prairie falcon pairs, the highest known breeding density in the world. Other raptors that nest in the NCA include American kestrel; golden eagle; northern harrier; osprey; peregrine falcon; red-tailed and ferruginous hawks; and burrowing, great-horned, long-eared, northern saw-whet, short-eared, and western screech owls. This important nesting habitat is 7 miles to the south of the proposed project area in the Snake River Canyon (BLM 2008b). Offering additional raptor nesting habitat is Crater Rings National Natural Landmark inside the NCA, which are two symmetrical volcanic pit craters covering 1,262 acres (approximately 3,000 feet across, 350 feet deep), approximately 1 mile north of the proposed project area and inside the ROI (NPS 2021). The Crater Rings support breeding habitat for a suite of cliff nesting raptor species. The ROI also supports winter and migration stopover habitat for species including prairie falcon and rough-legged hawk. Many other wildlife species including ground squirrels, jackrabbits, badgers, coyotes, pronghorn antelope, and a suite of amphibians and reptiles inhabit the ROI throughout their annual lifecycles (BLM 2008b).

The ROI and proposed project area contain a variety of uses potentially affecting wildlife, including livestock and agricultural management, gravel pits, public shooting, military ranges, fixed and rotor-wing aircraft (OCTC and Mountain Home AFB), and public and commercial vehicle traffic and associated infrastructure. A substantial network of paved, gravel and two-track dirt roads crisscross both areas. In addition, the ROI and proposed project area contain livestock grazing pastures marked by barbed wire fences (48 miles of fencing in the proposed project area). This infrastructure, as well as the aforementioned activities and associated noise, are common environmental factors for wildlife in the ROI and proposed project area.

Current wildlife habitat condition and quality within the ROI is a mix of small historic shrub stands and native and nonnative grasses and forbs. For this document, habitat conditions were based on

1 the existing plant species present (**Section 3.6**) and their ability to support raptors and their prey  
 2 base. Vegetation types are assigned a value (from 0 to 1, with 1 being optimum) that reflects that  
 3 vegetation type's relative importance to raptor prey (ground squirrel and jack rabbit) habitat  
 4 (Table 3-22). The habitat values in Table 3-22 for are derived from over 20 years of ROI survey  
 5 work and associated peer-reviewed literature.

6 **Table 3-22. Prey Values and Relative Importance**

<b>Vegetation Class/ Land Cover</b>	<b>Common Name</b>	<b>Scientific Name</b>	<b>Relative Importance to Ground Squirrel</b>	<b>Relative Importance to Jack Rabbit</b>	<b>Combined Relative Importance</b>
ARTR	Wyoming big sagebrush	<i>Artemisia tridentata wyomingensis</i>	1	1	1
Crested	Crested wheatgrass	<i>Agropyron cristatum</i>	0.6	0.5	0.55
BlueBunch	Bluebunch wheatgrass	<i>Pseudoroegneria spicata</i>	0.82	0.1	0.46
Other Grass	Low density grasses	<i>Great basin wildrye, squirrel tail, etc.</i>	0.82	0.1	0.46
POSE	Sandberg's bluegrass	<i>Poa secunda</i>	0.82	0.1	0.46
ATCO	Shadscale	<i>Atriplex confertifolia</i>	0.5	0.4	0.45
KRLA	Winterfat	<i>Krascheninnikovia lanata</i>	0.5	0.4	0.45
BRTE	Cheatgrass	<i>Bromus tectorum</i>	0.27	0.44	0.355
EXAN	Exotic annuals	<i>Mostly russian thistle</i>	0.27	0.44	0.355
Mustards	Annual mustards	<i>Brassicacea spp.</i>	0.27	0.44	0.355
RABB	Green rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	0.5	0.1	0.3
Kochia	Forage kochia	<i>Bassia prostrata</i>	0	0.15	0.075
AG	Agriculture	N/A	0	0	0
BARE	Bare ground	N/A	0	0	0

<b>Vegetation Class/ Land Cover</b>	<b>Common Name</b>	<b>Scientific Name</b>	<b>Relative Importance to Ground Squirrel</b>	<b>Relative Importance to Jack Rabbit</b>	<b>Combined Relative Importance</b>
Blacktop	Pavement	N/A	0	0	0
Building	Building	N/A	0	0	0
Cinder	Cinder rock	N/A	0	0	0
Concrete	Concrete	N/A	0	0	0
Playa	Playa	N/A	0	0	0
Turf	Turf	N/A	No data	No data	No data

Source IDARNG 2018b

1 These vegetation classes are aggregated into high-, medium-, and low-quality raptor habitat (Table  
2 3-23). High-quality wildlife habitat is most capable of supporting raptors and their prey. It  
3 generally consists of large contiguous stands of sagebrush and native perennial grasses.  
4 Medium-quality habitat consists of other native shrubs (including rabbitbrush) and degraded areas  
5 of mixed perennial grasses with bare ground or nonnative grasses such as cheatgrass. Low-quality  
6 habitat provides the least in terms of supporting wildlife, and is generally dominated by nonnative  
7 burr buttercup, cheatgrass, annual plants such as Russian thistle and tumble mustard, and/or large  
8 areas of bare ground. Approximately one half of the overall ROI is moderate- to high-quality  
9 wildlife habitat, but less than 25 percent in the proposed project area is moderate- to high-quality  
10 wildlife habitat. Within the proposed project area, 85 percent of the site falls in the low to moderate  
11 wildlife habitat quality.

12 **Table 3-23. Breakdown of Raptor Prey Habitat Quality**

<b>Wildlife Habitat Quality</b>	<b>ROI (Acres)</b>	<b>ROI (Percent)</b>	<b>Proposed Project Area (Acres)</b>	<b>Proposed Project Area (Percent)</b>	<b>Proportion of Proposed Project Area in ROI<sup>a</sup></b>
High	54,623	26	4,399	16	8
Moderate	69,628	33	11,150	39	16
Low	86,255	41	12,884	45	15
Total	210,506	100	28,433	100	14

<sup>a</sup> This column represents the proportion of each classification present in the ROI that occurs within the proposed project area.

13 The high-quality raptor habitat within the ROI and proposed project area supports two important  
14 raptor prey species, the Piute ground squirrel and black-tailed jackrabbit. These are the primary  
15 prey for many raptors in the NCA (BLM 1996; Steenhof and Kochert 1988; Steenhof et al. 2006).



1 Piute ground squirrel distribution, abundance, and productivity are highly related to high-quality  
2 raptor prey habitat consisting of native perennial grasses (Sandberg’s bluegrass) and native shrubs  
3 (sagebrush) (BLM 1996). Ground squirrels eat these perennial grasses, with native shrubs  
4 becoming important in low rainfall years. In years of adequate or above normal rainfall, ground  
5 squirrel densities are highest in these perennial grass habitats, but these areas can be highly variable  
6 from year to year because of food desiccation in drought years. Shrub habitats are less variable  
7 and tend to have more consistent year-to-year and less dramatic increases and declines in ground  
8 squirrel densities, higher overwinter survival, and higher reproduction (BLM 1996). High-quality  
9 raptor prey habitat consisting of native shrub (sagebrush) areas is also important for black-tailed  
10 jackrabbit populations, which naturally fluctuate, reaching population peaks every 7 to 12 years  
11 (Johnson and Peek 1984). In the spring and summer, jackrabbits eat native perennial grasses  
12 interspersed inside large areas of sagebrush, relying on the shrubs in the fall and winter (Johnson  
13 and Anderson 1984). Due to relatively low sagebrush cover in the ROI, rabbit prey availability for  
14 golden eagles and other large raptors is likely limited. Recent pre- and post-burn dietary studies  
15 conducted in the NCA have documented a shift in golden eagle diets from primarily sagebrush  
16 associated rabbit species in pre-burn years to a higher proportion of waterfowl (mallards and  
17 coots), Piute ground squirrels, and rock pigeons as sagebrush cover has been converted to  
18 grasslands in response to shrub loss due to wildfire over time (1973-2013) (Heath et al. 2021). As  
19 the ROI does not support waterfowl habitat, golden eagles foraging in the area are primarily  
20 consuming Piute ground squirrels, rabbit species, and rock pigeons (Heath and Kochert 2016).

### 21 **3.7.1 Special-Status Species – Wildlife**

22 There are no USFWS-listed threatened or endangered species recorded within the ROI  
23 (Appendix H) (USFWS 2020b). There is no habitat or recorded occurrences of the monarch  
24 butterfly in the ROI. In accordance with the INRMP, the IDARNG manages ESA-threatened and  
25 endangered species, as well as Idaho-listed species of conservation concern and BLM Sensitive  
26 Species, by avoiding sensitive areas during training, preventing damage to sensitive areas, and  
27 rehabilitating damaged areas. The NCA’s RMP and Record of Decision (2008) outlines special  
28 conservation emphasis to be given to the prairie falcon and Piute ground squirrel. Other BLM  
29 sensitive wildlife species associated with the ROI and potentially occurring in the proposed project  
30 area include the ferruginous hawk and golden eagle (Appendix J).

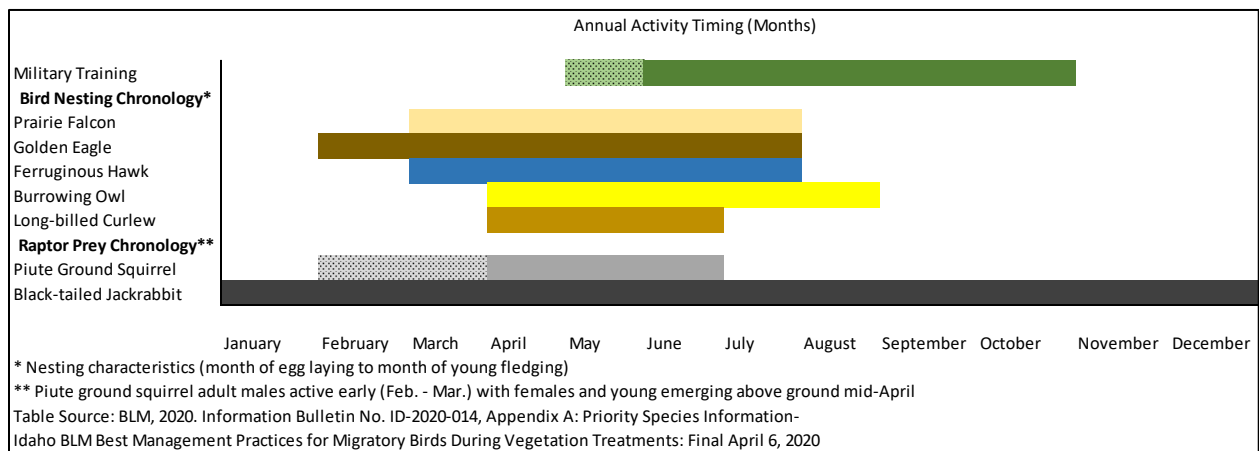
31 The upland habitats adjacent to the Snake River Canyon and in the ROI support habitat for several  
32 ground-nesting bird species, including BLM Type 2 Sensitive Species burrowing owl and  
33 long-billed curlew. These uplands also support habitat for Piute ground squirrels, a key prey item  
34 for nesting raptors, as well as other small mammals (for example, black-tailed jackrabbits, pocket  
35 gophers, and kangaroo rats). Appendix J, Table 1 lists other BLM Sensitive Species that occur or  
36 could potentially occur in the ROI. Refer to Appendix J for an expanded description of prairie  
37 falcon, golden eagle, ferruginous hawk, ground-nesting burrowing owl and long-billed curlew,  
38 Piute ground squirrel, and black-tailed jackrabbit.

### 39 **3.7.2 Migratory Birds of Concern and Bald Eagles**

40 The IDARNG environmental staff conducts year-round surveys for the presence of all migratory  
41 bird species in the ROI, emphasizing raptor and sagebrush obligatory species. Sagebrush obligate,  
42 BLM Type 2 Sensitive Species of songbirds including Brewer’s sparrow, loggerhead shrike, sage

1 sparrow, and sage thrasher nest in intact sagebrush stands in the ROI and the proposed project  
 2 area. Black-throated sparrows are uncommon to salt desert shrub stands in the southwest corner of  
 3 the ROI and OCTC, which is the northern distribution boundary for this species. Short-eared owls  
 4 are a nomadic species and may be present in years of abundant prey but are often absent from the  
 5 ROI. The most abundant, common and widespread ground-nesting bird in the ROI and proposed  
 6 project area is the species of least concern, horned lark (Halka et al. 2021, Ecosystem  
 7 Sciences 2017a). Horned larks are permanent residents in the ROI, nesting and foraging in habitats  
 8 of barren ground to short grasses. For all migratory birds and raptors, site-specific surveys record  
 9 species' presence or use of an area prior to all construction activities, with areas marked off limits  
 10 as needed.

11 For the specific raptors and migratory birds on Figure 3-2, most establish territories and nests late  
 12 winter to early spring. Region of influence military training occurs after these species have  
 13 established territories and are past the egg laying and incubation period. Region of influence  
 14 military activities in May to mid-June overlap the nestling portion of the breeding season (which  
 15 may last 30 to 46 days) for most of the species considered.



16 **Figure 3-2. NCA Target Species Nesting and OCTC Military Training Chronology**

17 **Figure 3-2. NCA Target Species Nesting and OCTC Military Training Chronology**  
 18 Training exercises and construction activities that would adversely affect bird species are relocated  
 19 or modified in accordance with the Migratory Bird Treaty Act of 1918 and the INRMP. All bird  
 20 species found in the ROI nest beginning in early spring (Warner 2014b), while the military training  
 21 occurs in the ROI beginning midspring and building in volume late summer (July and August).

22 Bald eagles (Type 2 Sensitive Species) do not nest in the proposed project area, but winter records  
 23 show they occasional fly over the ROI moving between the Snake River in the south and the Boise  
 24 River to the north.

25 **3.7.3 Environmental Consequences – Wildlife**

26 The BLM and IDARNG wildlife IDT developed the following issue statements, indicators, species  
 27 considered, and significance criteria for analyzing environmental consequences.

1 **Issue Statement 1:** How would ground surface disturbance from military training and  
2 infrastructure affect the quality of raptor prey habitat in the proposed project area?

3 **Indicator:** Acres, classification type, and value of raptor prey habitat (Piute ground squirrel and  
4 black-tailed jackrabbit) in the proposed project area (refer to Table 3-23). Vegetation remote  
5 imagery, ground survey data, and published literature on the ROI and proposed project area were  
6 used to calculate prey values and habitat relative importance tables (IDARNG 2018).

7 **Significance Criteria:** A loss of essential occupied habitat having a measurable and substantial  
8 negative effect on a known population of special-status raptor species resulting in a raptor species  
9 becoming ESA listed would be considered significant. This would be measured with updates to  
10 Table 3-22.

11 **Short Term:** Impacts during construction (1 to 1.5 years) or less than two growing seasons.

12 **Long Term:** After construction completed (2-20 years) or greater than two growing seasons.

13 **Issue Statement 2:** How will human presence related to military training activities and  
14 construction affect breeding habitat and nesting behavior of migratory birds and raptors in the  
15 project analysis area and ROI?

16 **Indicator:** Sum of training days overlapping with bird nesting season by species and acres of  
17 permanently lost habitat.

18 **Significance Criteria:** Activities having a measurable and substantial negative effect on nesting  
19 populations of known special-status migratory birds or raptors would be considered significant.  
20 Quantified negative effects of military-related human presence resulting in a known population of  
21 special-status raptor or migratory bird species becoming ESA listed would be considered  
22 significant. This would be determined through raptor nest monitoring, monthly raptor surveys and  
23 annual migratory bird counts, long-billed curlew surveys, and burrowing owl surveys (all currently  
24 conducted on the OCTC portion of the ROI).

25 **Short Term:** Impacts during construction (1 to 1.5 years) or less than two growing seasons.

26 **Long Term:** After construction completed (2 to 20 years) or greater than two growing seasons.

27 **Region of Influence:** The ROI for wildlife includes the proposed project area, NCA Management  
28 Area 3, and the OCTC (encompasses 210,506 acres).

29 ***Effects of the No Action Alternative – Wildlife***

30 Implementation of the No Action Alternative would have no effects on the current raptor prey  
31 habitat conditions or loss of habitat within the proposed project area.

1 **Issue Statement 1:** Ground Disturbance Effects on Quality of Raptor Prey Habitat

2 **Military Training:** There would be no short- or long-term effects to quality of raptor prey habitat  
3 related to military use under this no action alternative. There would be no effects to raptor prey  
4 habitat in the proposed project area through military ground disturbance.

5 **Military Infrastructure:** There would be no ground surface disturbance from military training  
6 and infrastructure.

7 **Nonmilitary Use:** Raptor prey habitat disturbances such as wildland fire (**Section 3.6.3**), public  
8 recreation (**Section 3.2.3**), and livestock grazing (**Section 3.2.1**) would occur at current rates on  
9 BLM- and IDL-managed lands.

10 **Nonmilitary Infrastructure:** The 48 miles of 4-strand barbed wire fencing on raptor prey habitat  
11 and migratory bird nesting habitat would remain in place.

12 **Issue Statement 2:** Human Presence Effects on Migratory Birds and Raptors (on Nesting Habitat  
13 and Nesting Behavior)

14 **Military Training:** Under the no action alternative, there would be no short- or long-term  
15 additional military training effects to nesting habitat or nesting migratory birds and raptors. There  
16 would be no effects to nesting habitat or nesting birds in the proposed project area from additional  
17 military-related human presence, including noise.

18 **Military Infrastructure:** There would be no short- or long-term additional military infrastructure  
19 effects to nesting habitat or nesting migratory birds and raptors. Important migratory bird habitat  
20 such as native shrub patches and perennial grass habitat in the proposed project area would remain  
21 in its current condition. There would be no effects to nesting birds from additional military  
22 infrastructure construction and maintenance related noise.

23 **Nonmilitary Use:** There would be no short- or long-term changes to the nesting habitat or nesting  
24 migratory birds and raptors from disturbances such as wildland fire (**Section 3.6.3**), public  
25 recreation (**Section 3.2.3**), and livestock grazing (**Section 3.2.1**). Raptor nesting habitat in nearby  
26 Crater Rings would continue to experience high levels of public use as a designated National  
27 Natural Landmark, which is popular for sightseeing, annual trail running races, target shooting,  
28 geo-caching, and bird watching. Noise from proposed project area public, commercial, and  
29 military activities would continue at the current rate (**Section 3.4.2**).

30 **Nonmilitary Infrastructure:** There would be no short- or long-term changes to the nesting habitat  
31 or nesting migratory birds and raptors related to agricultural infrastructure, including the existing  
32 fence network (48 miles of barbed wire fence).

1 **3.7.4 Effects of Alternative A – Wildlife**

2 Under Alternative A, short- and long-term effects from additional military-related surface  
3 disturbance (construction, maintenance activities, and military training) would be adverse, but not  
4 rising to the level of being measurable, and less than significant. In contrast, long-term (up to  
5 20 year) effects associated with additional military conservation actions and resources, as well as  
6 additional military wildland fire suppression assets, would likely benefit raptor prey habitat and  
7 other wildlife, with the level of significance conditional on overall success of the projects.

8 **Issue Statement 1: Ground Disturbance Effects on Quality of Raptor Prey Habitat**

9 **Military Training:** Under Alternative A, there would be short- and long-term additional military  
10 training effects to quality of raptor prey habitat in the ROI and the proposed project area. Any  
11 effects to proposed project area raptor prey habitat would be adverse, but less than significant.  
12 Ground disturbance effects from military training would alter the habitat and result in temporary  
13 lower quality habitat and lower rates of habitat use for raptor prey. A range of temporary effects  
14 would span from barely noticeable tank track depressed ground and vegetation to the extreme and  
15 uncommon tank turn resulting in vegetation loss and exposed bare soil. Military training activities  
16 would occur primarily in native and exotic grassland areas, which make up the majority of the  
17 proposed project area (**Section 3.6.2**). Long-term ROI vegetation monitoring data on the OCTC  
18 show no significant change in nonnative species cover or common native perennial grass cover,  
19 specifically *Poa secunda*, in plots with historical and annual maneuver training operations  
20 (IDARNG EMO 2020). Military training would not occur in high-quality sagebrush raptor prey  
21 habitat except for restricted fence crossing lanes (**Section 3.6.2**).

22 Experimental long-term tank tracking studies in the ROI (sagebrush and grassland) showed that  
23 maneuver activities did not significantly affect the quality of raptor habitat or the short-term  
24 survival, density, or behavior of ground squirrels at the study site (BLM 1996). If habitat quality  
25 is affected, isolated damage (including from tank turns) would be reseeded and returned to  
26 pre-existing conditions or better within one growing season or prior to reuse (in cases of drought),  
27 whichever is longer (INRMP). The tank tracking studies did not find any difference in plant cover  
28 before and after tank tracking occurred. Long-term Piute ground squirrel capture data from the  
29 OCTC also show that adverse impacts to ground squirrel populations in maneuver training  
30 operations areas are not statistically different from those in areas with restricted access for military  
31 training (Tinkle et al. 2016). However, there is a statistical difference of reduced ground squirrel  
32 population and distribution in the proposed project area compared to those within the OCTC  
33 boundary (Tinkle et al. 2016). These higher ground squirrel populations inside the OCTC portion  
34 of the ROI and BLM Management Area 1 may see long-term beneficial effects of shifting some  
35 military training to lower quality habitat and lower squirrel population areas in Management  
36 Area 3 (the proposed project area).

37 Short-term temporary adverse wildlife habitat loss would occur from proposed military dig sites  
38 during military training but would be less than significant. Under Alternative A, dig sites could  
39 occur anywhere within the proposed project area and will not affect more than 15 acres (5 acres of  
40 BLM-managed land and 10 acres of IDL-managed land) annually. Individual dig sites would  
41 displace soil and vegetation the width of a tank (approximately 3 meters), up to 2 meters deep,

1 with displaced soils returned after the exercise. Dig sites would not occur in high-quality raptor  
2 habitat. Each dig site would be reseeded and returned to pre-existing conditions or better within  
3 one growing season or prior to reuse (in cases of drought), whichever is longer (INRMP).

4 **Military Infrastructure:** Under this alternative, military construction and maintenance activities  
5 would adversely affect the quality of raptor prey habitat in the short and long term by directly  
6 altering habitat. Although the impact would be adverse, the level of intensity depends on the type  
7 or quality of habitat. High-quality shrub habitat (Steenhof et al. 2006) is off limits to military  
8 activities. Other factors include the prey species (jackrabbits prefer off-limits sagebrush habitat)  
9 and time of year (Piute ground squirrels estivate during the summer and fall). Temporary and  
10 permanent habitat alteration associated with construction would also adversely affect raptor  
11 habitat. Approximately 144 acres of raptor prey habitat would be permanently altered, and  
12 129 acres would be temporarily affected. As stated in the BLM SOPs (Appendix G), all temporary  
13 impacts would be rehabilitated to equal or greater habitat quality than currently present. The  
14 majority (92 acres or 64 percent) of permanent habitat alteration in the proposed project area would  
15 be in the low-quality raptor prey habitat category. The proposed project would permanently alter  
16 18 acres or 0.03 percent of high-quality raptor habitat in the ROI, which is less than 0.5 percent of  
17 the high-quality habitat currently found in the proposed project area (Table 3-23). Construction,  
18 maintenance, and use of the road and assembly areas would alter habitat and may result in  
19 temporary lower quality habitat for some ground-nesting birds (long-billed curlew and burrowing  
20 owl) immediately adjacent to these activities, but this is less than 1 percent of the proposed project  
21 area.

22 **Nonmilitary Use:** Long-term raptor prey habitat disturbances such as natural and public-caused  
23 wildland fire (**Section 3.6.3**) would benefit from additional military wildland fire assets under this  
24 alternative. Military wildland fire crews in the ROI are staged nearby and actively suppress  
25 nonmilitary and military fires with reduced fire size and quick response times. High-quality raptor  
26 habitat receives high priority protection status.

27 **Nonmilitary Infrastructure:** Under this alternative, there would be a net reduction in the linear  
28 feet of fence in the proposed project area from 254,400 linear feet (48 miles) to 201,135 linear  
29 feet, for a net reduction of 10 miles of 4-strand barbed wire fence. In addition, 21,226 linear feet  
30 (4 miles) of 4-strand barbed wire fence in the proposed project area would be replaced by wildlife  
31 friendly fence (designed to allow wildlife to pass without harm while containing livestock). The  
32 top and bottom wire strands would be smooth, with a higher bottom strand to allow for easier  
33 passage of wildlife. Fences are rarely a source of mortality to raptors (accounting for 11 of  
34 4,000 raptor deaths, or 0.2 percent), but collision-related trauma injuries have been reported  
35 (Wendell et al. 2002), with one ROI instance of a newly fledged ferruginous hawk injured by a  
36 fence with a barbed wire top strand (Warner 2014a per. obs).

37 **Issue Statement 2:** Human Presence Effects on Migratory Birds and Raptors (on Nesting Habitat  
38 and Nesting Behavior).

39 **Military Training:** Under Alternative A, there would be short- and long-term additional negative  
40 effects to breeding habitat and nesting behavior of raptors and migratory birds in the proposed

1 project area. Alternatively, there would be no change to the current level of military training in the  
2 ROI because the overall volume of training will remain the same but would be spread out over a  
3 larger area. Any effects from human presence related to military training on breeding habitat and  
4 nesting behavior of raptors and other birds would be adverse, but less than significant. Military  
5 training would not occur in high-quality sagebrush nesting habitat for species such as sage sparrow,  
6 which would be off limits to training. Any short- and long-term, local, and less than significant  
7 adverse impacts to raptors would include temporary disruption of actively foraging raptors in the  
8 presence of military training (BLM 1996).

9 Previous studies found that disturbances to raptors associated with military training activity were  
10 infrequent and did not affect the ability of the birds to obtain prey over the nesting season  
11 (BLM 1996). Previous studies documented that raptor count results associated with tank assembly,  
12 ammunition loading, driving, laser training, and convoy traffic were similar to non-training periods  
13 (Schueck et al. 2001). Individual raptor home ranges did change with exposure to military training  
14 activity, with some individuals foraging over a larger area with unknown consequences  
15 (Andersen 1990). A previous 4-year study including ferruginous hawks and burrowing owls in the  
16 ROI and OCTC recorded peak military activities from mid-May to August, after the prelaying  
17 period for most raptors in the area (Lehman et al. 1999). This study suggested the later nesting  
18 season military activity did not affect distribution of nests in the area. No known raptor nests within  
19 the ROI would be directly affected by permanent or temporary military activities. Known golden  
20 eagle and prairie falcon nests near the proposed project area are 7 miles to the south in the Snake  
21 River Canyon or insulated from construction and military activities by natural terrain features. One  
22 ferruginous hawk human-made platform, which is located in the northwest corner of the proposed  
23 project area, is unlikely to be affected by military training activities due to its position near the  
24 boundary, but would be actively monitored annually (nest occupancy and success), with species-  
25 specific protection buffers applied as necessary. Similar human-made platforms inside the OCTC  
26 long occupied by successful nesting ferruginous hawks are near heavy military use, including  
27 firing positions and maneuver training, with no measurable short- or long-term effects. Species-  
28 appropriate buffers from disturbance would be applied to all newly discovered nests.

29 Military activities occurring during late summer or fall may have direct adverse impacts to Piute  
30 ground squirrels but would be limited to isolated destruction of burrows. Any burrow disturbance  
31 near existing roads would be adverse but less than significant because burrows are less likely to  
32 occur in the compacted soils of the current gravel or two-track roads in the proposed project area.  
33 Activities outside of this window would allow squirrels and other small mammals to move away  
34 from potential harm. Long-term adverse impacts to Piute ground squirrel populations are not  
35 anticipated because Piute ground squirrels use their deep burrows (up to 4 feet below the surface)  
36 to escape potential harm and are unlikely to be affected by aboveground activities (Laundre 1989).

37 Any short-term and long-term, local, and less than significant adverse impacts to ground-nesting  
38 birds (burrowing owl and long-billed curlew) would be to their breeding habitat, nest site, foraging  
39 activity, and nesting behavior. A study of breeding birds exposed to low and high military activity  
40 found no evidence of direct impacts to bird activity or reproductive success (Barron et al. 2012).  
41 It also reported military activity as unpredictable in type, duration, and exact location, with high  
42 levels of presence separated by lulls in activity, which is similar to Alternative A. Time of year  
43 (month) overlap of expected annual military training activity with nesting in the ROI and in the

1 proposed project area would occur but would be less than significant. For the raptors and migratory  
2 birds evaluated in Table 3-23, the earliest beginning of military training would occur after these  
3 birds have established territories and are past the egg laying and incubation period. Any military  
4 activities in May would overlap the nestling portion of the breeding season.

5 Ground-nesting burrowing owls commonly nest and successfully raise young in burrows often  
6 found along roads inside the OCTC, ROI, and proposed project area. Burrowing owls in this area  
7 most often nest in old badger digs or dens, which are abundant due to a high density of badgers  
8 (Messick and Hornocker 1981). Because of their ground-nesting behavior and ability for nestlings  
9 to avoid predators by walking to nearby alternate burrows within 2 weeks of hatching, burrowing  
10 owls may tolerate above ground activities well. Integrated Natural Resource Management Plan  
11 SOPs for active burrowing owl nests in the ROI, particularly along roadsides, include marking  
12 areas as off limits until nest young have fledged. Annual burrowing owl surveys in the ROI  
13 (2011 to 2020), where military training has occurred since 1953, have indicated an increasing  
14 population trend (IDARNG 2020a). Burrowing owls may even thrive in altered habitats similar to  
15 those in the southeast of the ROI and proposed project area (BLM 1996). Short- and long-term  
16 effects to ground-nesting or burrowing wildlife habitat associated with training activities would be  
17 adverse, but less than significant, with no increase in military training volume. The impacts would  
18 be dispersed over a large area, reducing the probability that individual nests or burrows would be  
19 disturbed.

20 Ground-nesting species such as long-billed curlew would be disturbed by increased military  
21 training (personnel and vehicular activity) in proximity to any nesting territories, which would  
22 result in no action from adult birds or young, temporary avoidance by adults, nest abandonment or  
23 destruction, or mortality of nestlings. A study on military training intensity on ground-nesting  
24 grassland sparrow species on a military base found that habitat use, nest survival, vegetation  
25 abundance, and vegetation composition did not differ with intensity of training (Fish 2019). This  
26 study followed 110 ground nests and recorded one nest damage instance. Disturbance from  
27 excessive vehicular movement was found to be a substantial problem for nesting curlews,  
28 particularly during brood-rearing season (Jenni et al. 1982). As such, all construction and the  
29 majority of military vehicle and personnel activity would occur after the curlew egg stage when  
30 the young are mobile. In addition, preconstruction surveys would be used to identify and avoid  
31 any ground-nesting birds. In the majority of the ROI associated with the OCTC, military  
32 construction and training have been present for more than 70 years. In the 30 years the IDARNG  
33 has been actively monitoring this species, there have been no recorded incidents of nest destruction  
34 or direct mortality in areas with documented occurrence. In addition, long-billed curlew chicks are  
35 highly mobile and able to walk away from their nest within 5 hours of hatching to avoid predators  
36 or other disturbance.

37 Short- and long-term impacts from noise would be adverse, but less than significant and localized  
38 spatially and temporally. Noise impacts to raptor and migratory bird behavior would be associated  
39 with maneuver training activities in the long term (**Section 3.4.2**). Although birds in the proposed  
40 project area would be exposed to additional military noise over time, the type would not differ  
41 from current conditions. Nesting eagles exposed to military weapons testing noise showed no  
42 observed activity change following a noise event, with no difference in nest success and



1 productivity compared to adjacent areas with no military noise (Brown 1999). These studies  
2 suggested resident nesting birds habituate to noise over a short period of time.

3 **Military Infrastructure:** Short- and long-term impacts to noise would be adverse, but less than  
4 significant and localized spatially and temporally. Impacts to raptor and migratory bird behavior  
5 would be associated with construction activities in the short term (**Section 3.4.2**). The construction  
6 of road and assembly areas would result in temporary avoidance by foraging raptors and lower  
7 rates of habitat use immediately adjacent to these areas, but this is less than 1 percent of the  
8 proposed project area. Temporary and permanent habitat alteration associated with construction  
9 would also adversely affect wildlife species. Approximately 144 acres of raptor prey habitat would  
10 be permanently altered, with an additional 129 acres temporarily affected. As stated in the BLM  
11 SOPs (Appendix G), all temporary impacts would be rehabilitated to equal or greater habitat  
12 quality than currently present. Short-term infrastructure related noise impacts would be similar to  
13 those mentioned under the previous section on military training.

14 **Nonmilitary Use:** There would be no short- or long-term changes to the nesting habitat or nesting  
15 behavior of migratory birds and raptors from disturbances such as public recreation (**Section 3.2.3**)  
16 and livestock grazing (**Section 3.2.1**). Raptors nesting in nearby Crater Rings would continue to  
17 experience current levels of public use because the area is a designated National Natural  
18 Landmark, which is popular for sightseeing, annual trail running races, target shooting, geo-  
19 caching, and bird watching. Noise from proposed project area public, commercial, and military  
20 activities would continue at the current rate (**Section 3.4.2**).

21 **Nonmilitary Infrastructure:** Under this alternative, there would be a net reduction in the linear  
22 feet of fence in the proposed project area from 254,400 linear feet (48 miles) to 201,135 linear  
23 feet, with a net reduction of 10 miles of 4-strand barbed wire fence. In addition, 21,226 linear feet  
24 (4 miles) of 4-strand barbed wire fence in the proposed project area would be replaced by wildlife  
25 friendly fence (designed to allow wildlife to pass without harm while containing livestock). The  
26 top and bottom wire strands would be smooth, with a higher bottom strand to allow for easier  
27 passage of wildlife. Fences are rarely a source of mortality to raptors (accounting for 11 of  
28 4,000 raptor deaths, or 0.2 percent) but collision-related trauma injuries have been reported  
29 (Wendell et al. 2002), with one ROI instance of a newly fledged ferruginous hawk injured by a  
30 fence with barbed wire top strand (Warner 2014a per. obs).

### 31 **3.7.5 Effects of Alternative B – Wildlife**

#### 32 **Issue Statement 1: Ground Disturbance Effects on Quality of Raptor Prey Habitat**

33 **Military Training:** Short-term temporary, local adverse raptor prey habitat loss would occur from  
34 proposed military dig sites on BLM-managed land. Similar to Alternative A, it would still affect  
35 no more than 15 acres (5 acres of BLM-managed land and 10 acres of IDL-managed land)  
36 annually; however, digging on BLM-managed land would be restricted to a predefined area. This  
37 would have similar adverse, temporary, less than significant impacts to raptor prey habitat, with  
38 presite conditions returning within one growing season. The impacts associated with Alternative  
39 B would be the same as Alternative A.

1 **Military Infrastructure:** The impacts associated with Alternative B would be the same as  
2 Alternative A.

3 **Nonmilitary Use:** The impacts associated with Alternative B would be the same as Alternative A.

4 **Nonmilitary Infrastructure:** Under this alternative, there would be a net reduction in the linear  
5 feet of fence in the proposed project area from 254,400 linear feet (48 miles) to 210,895 linear  
6 feet, for a net reduction of 8 miles of 4-strand barbed wire fence. In addition, 30,986 linear feet  
7 (4 miles) of 4-strand barbed wire fence in the proposed project area would be replaced by wildlife  
8 friendly fence (designed to allow wildlife to pass without harm while containing livestock). The  
9 top and bottom wire strands would be smooth, with a higher bottom strand to allow for easier  
10 passage of wildlife. Fences are rarely a source of mortality to raptors (accounting for 11 of  
11 4,000 raptor deaths, or 0.2 percent), but collision-related trauma injuries have been reported  
12 (Wendell et al. 2002), with one ROI instance of a newly fledged ferruginous hawk injured by a  
13 fence with a barbed wire top strand (Warner 2014a per. obs).

14 **Issue Statement 2:** Human Presence Effects on Migratory Birds and Raptors (on Nesting Habitat  
15 and Nesting Behavior)

16 The impacts associated with Alternative B relative to the effect of human presence on migratory  
17 bird and raptor nesting habitat and behavior would be the same as Alternative A.

## 18 **3.8 CULTURAL RESOURCES**

19 The ROI for cultural resources is limited to the proposed project area. The proposed ROI falls  
20 within the traditional territories of the Northern Shoshone, Northern Paiute, and Northern Bannock  
21 Tribes. Previous archaeological investigations have shown that there are numerous documented  
22 cultural resources within the boundaries of the OCTC. Consultation with the Tribes was conducted  
23 throughout the development of the EA (**Section 1.3**).

### 24 **3.8.1 Affected Environment – Cultural Sites Eligible for the National Register of Historic 25 Places**

26 Historic properties are cultural resources that reflect the nation’s heritage and include  
27 archaeological sites, buildings, traditional cultural properties, Native American sacred sites, Native  
28 American trust assets, and any other historically significant places that are eligible or  
29 recommended as eligible for listing on the National Register of Historic Places (NRHP). Cultural  
30 resources include historic properties as defined by the National Historic Preservation Act (NHPA),  
31 cultural items as defined by the Native American Graves Protection and Repatriation Act  
32 (NAGPRA), archaeological resources as defined by Archaeological Resources Protection Act  
33 (ARPA), sacred sites as defined in Executive Order 13007 to which access is afforded under  
34 American Indian Religious Freedom Act (AIRFA), and collections and associated records as  
35 defined in 36 CFR 79.

1 A total of 30,453 acres were surveyed at 30-meter transects in 2016 with crews that ranged from  
2 four to eight archaeologists surveying from the southern boundary to the northern boundary of the  
3 proposed project area (Appendix K). A Class I inventory was conducted to evaluate existing data  
4 from published and unpublished documents. A Class II inventory was then conducted to  
5 characterize the probable density, diversity, and distribution of cultural resources. Finally, a  
6 Class III inventory was conducted to locate and record all cultural resources in the proposed project  
7 area.

8 The Class I inventory of existing data for the proposed area of potential effect (APE) portrayed  
9 lands within the proposed project area as containing resources representing use of the area. The  
10 sites recommended as eligible have the potential to offer key information pertaining to the use of  
11 the proposed project area.

12 Following SHPO consultation, it was determined that 6 of the 56 sites (32 sites identified during  
13 the project’s Class I inventory and 24 new sites recorded during the Class III inventory) are eligible  
14 for listing under the NRHP. The field crew attempted to relocate and assess each of the previously  
15 recorded sites within the proposed project area, but were only able to find materials at five of the  
16 sites. Based on the record search and in-field assessment, sites 10-EL-1346, 10-EL-1615, and  
17 10-EL-1434 were determined to still be eligible. In addition to the existing sites, 10-EL-2554,  
18 10-EL-2569, and 10-EL-2548 were determined to be eligible.

19 Although the IDARNG identified these sites, they are not currently monitored annually by  
20 IDARNG because they are not part of the IDARNG’s training area and do not fall under the 2020  
21 ICRMP (Plew et al. 2020).

22 **3.8.2 Environmental Consequences – Cultural Sites Eligible for the National Register of**  
23 **Historic Places**

24 **Issue Statement:** How would the Proposed Action affect cultural resource sites eligible for the  
25 NRHP?

26 **Indicators:** Number of potentially affected cultural resource sites that are eligible for NRHP.

27 **Significant Criteria:** Only significant cultural resources as defined in the NHPA are considered  
28 for potential adverse impacts from an action. Significant archaeological and architectural resources  
29 are either eligible for listing or are listed on the NRHP. Significant traditional cultural properties  
30 are typically identified to federal agencies by Native American Tribes or other groups, and may  
31 be eligible for the NRHP. Any adverse impact to a significant cultural resource or traditional  
32 cultural property that could not be avoided, minimized, or mitigated would be considered a  
33 significant impact.

34 **Short Term:** There are no short-term impacts to cultural resources.

35 **Long Term:** Any impacts (beneficial or adverse) to cultural resources are considered long term.

1 **Region of Influence:** The ROI for cultural resources is the proposed project area.

2 *Effects of the No Action Alternative – Cultural Sites Eligible for the National Register of*  
3 *Historic Places*

4 The No Action Alternative would be a continuation of the status quo. There are currently six  
5 eligible cultural resources within the ROI. Existing uses of the area include livestock grazing,  
6 public access, recreation, and natural erosion, which have an unknown effect on cultural resources.  
7 There are no monitoring programs in place; therefore, there is no way to fully determine the short-  
8 or long-term impacts to cultural resource sites.

9 *Effects of Alternative A – Cultural Sites Eligible for the National Register of Historic Places*

10 Under Alternative A, long-term effects to historic properties would be beneficial, but less than  
11 significant. There are six archaeological sites identified within the ROI that meet the criteria to be  
12 registered under the NRHP. No significant historic structures have been identified within the ROI.  
13 None of the consulting Tribes have claimed that any traditional cultural properties exist in the ROI.  
14 All BMPs and SOPs outlined in the IDARNG ICRMP will be followed. In addition, all site  
15 protection measures outlined in the IDARNG/BLM Site Protection Plan would be implemented  
16 into military training plans, which would further minimize potential impacts to all eligible historic  
17 resources.

18 *Effects of Alternative B – Cultural Sites Eligible for the National Register of Historic Places*

19 Under Alternative B, the effects to historic properties would be the same as Alternative A. Similar  
20 to Alternative A, all BMPs and SOPs would be followed, and dig site locations would take into  
21 account all measures outlined in the IDARNG/BLM Site Protection Plan.

22 **3.9 SOCIOECONOMIC**

23 The ROI for the economic component includes both Ada and Elmore Counties because the  
24 Proposed Action has the potential to affect the economy in both counties. The ROI for the affected  
25 social environment includes the OCTC and proposed project area. This discussion centers on  
26 potential impacts to human health and safety.

27 **3.9.1 Socioeconomics**

28 Socioeconomics encompasses economies and social elements such as population levels and  
29 economic activity. Factors that describe the socioeconomic environment represent a composite of  
30 several interrelated and nonrelated attributes. There are several factors that can be used as  
31 indicators of economic conditions for a geographic area, such as demographics, median household  
32 income, unemployment rates, percentage of families living below the poverty level, employment,  
33 and housing data. Data on employment identify gross numbers of employees, employment by  
34 industry or trade, and unemployment trends. Data on personal income in a region are used to  
35 compare the before and after effects of any jobs created or lost as a result of a proposed action.  
36 Data on industrial, commercial, and other sectors of the economy provide baseline information  
37 about the economic health of a region.

1 Socioeconomic issues this EA addresses include demographics, regional employment and  
2 economic activity, and regional income and expenditures.

### 3 **3.9.2 Health and Safety**

4 A healthy and safe environment is one in which there is no (or an optimally reduced) potential for  
5 death, serious bodily injury or illness, or property damage. Health and safety addresses matters  
6 such as workers' health and safety (for example, during demolition activities and facility  
7 construction) and public safety (for example, during demolition and construction activities and  
8 during subsequent training operations). Every state ARNG (within the state ARNG Safety Office)  
9 has a health and safety expert on staff who is experienced with Occupational Safety and Health  
10 Administration requirements. Safety and accident hazards can often be identified and reduced or  
11 eliminated. Necessary elements for an accident-prone situation or environment include the  
12 presence of the hazard itself together with the exposed (and possibly susceptible) population. The  
13 degree of exposure depends primarily on the proximity of the hazard to the population. Activities  
14 that can be hazardous include transportation, maintenance and repair activities, and activities that  
15 occur in extremely noisy environments. Any facility or human-use area with potentially corrosive  
16 or explosive material creates an unsafe environment for nearby populations. Activities in these  
17 areas must adhere strictly to handling, transport, storage, and disposal protocols to ensure the safety  
18 of personnel on the installation and populations occurring nearby off installation. Areas requiring  
19 road detours, lane blockages, increased presence of construction vehicles, and the creation of dense  
20 traffic to accommodate demolition or construction activities can create areas potentially unsafe for  
21 pedestrians, or potentially riskier for the on-installation commute. Extremely noisy environments  
22 can mask verbal or mechanical warning signals such as sirens, bells, or horns. This EA addresses  
23 health and safety issues such as public safety and protection of children, construction safety, and  
24 Army occupational safety.

25 Based on the location, timing, and the scope of the Proposed Action, the affected environment and  
26 socioeconomic analysis conducted for the RPMP and *Final Environmental Assessment:  
27 Addressing Approval of the Orchard Combat Training Center Real Property Master Plan,  
28 Modernization and Infrastructure Improvements, and Optimized Annual Throughput of Brigade  
29 Combat Team Training, Gowen Field, Cantonment Area, and Orchard Combat Training Center,  
30 Idaho* (ARNG and BLM 2020, Sections 3.9 [pages 3-67 through 3-74] and 4.9 [pages 4-56 through  
31 4-60]) will be incorporated by reference. Additional information and project-specific data have  
32 been included in the following subsections.

### 33 **3.9.3 Affected Environment – Socioeconomic**

#### 34 *Socioeconomic*

35 Baseline information on population, regional employment and economic activity, housing,  
36 education, and demographics associated with the ROI are outlined in Section 3 (pages 3-70 through  
37 3-73) of the RPMP EA (ARNG and BLM 2020). The only economic use in the area is livestock  
38 grazing. There are no existing or proposed projects identified for the proposed project area that  
39 would result in additional revenue other than livestock grazing.

1 ***Public and Occupational Health and Safety***

2 **Traffic Safety**

3 Baseline information on health and safety associated with the ROI are outlined in Section 3  
4 (pages 3-73 through 3-74) of the RPMP EA (ARNG and BLM 2020). The highest potential for  
5 accident or injury is at the proposed Simco Road crossing (**Section 3.10**). Simco Road is a  
6 well-maintained paved roadway that would be crossed to access the proposed project area. It offers  
7 a north-to-south alternative from Interstate 84 at its northern end, 2 miles southeast of the  
8 Ada-Elmore county line, to Idaho 167 at its southern end, near Mountain Home AFB and Grand  
9 View.

10 State data show that from 2007 through 2016, at least eight accidents on Simco Road caused  
11 incapacitating injuries serious enough for ambulances or Life Flight helicopters to take victims to  
12 local hospitals. At least 12 accidents caused lesser but serious injuries. At least 16 accidents  
13 involved minor or possible injuries, and at least 31 caused property damage without injuries  
14 (Oswald 2018). Speed is cited as the most common reason for crashes on the roadway. Except for  
15 a couple of low hills, the road is generally straight and flat, with some small rises, as it descends  
16 the Snake River Plain gently from north to south.

17 **Public Use and Shooting**

18 Public use of the OCTC has increased considerably over the last two decades, with recreational  
19 shooting becoming one of the primary safety concerns for training soldiers and the public. Under  
20 the BLM's 2008 NCA RMP, public shooting was restricted on large areas to the north and west of  
21 the OCTC. Since then, there has been a considerable increase in the amount of public use and  
22 recreational shooting on the OCTC, which is a potential safety hazard to troops who train in the  
23 OCTC (Stout and Associates 2004).

24 From July 2019 through June 2020, there were a total of 31,296 vehicles recorded entering the  
25 OCTC on Pleasant Valley Road. Of these, 26,540 (85 percent) were civilian vehicles, with an  
26 average of 1.89 people per vehicle, or slightly more than 50,000 individuals. The months of March  
27 through May had the highest level of civilian use, averaging between 800 and 1,800 civilian users  
28 per week (IDARNG 2020a).

29 The primary use by civilians year-round was target shooting, making up between 60 percent (May)  
30 and 98 percent (December) of the recorded use within the OCTC. In the months of March through  
31 May, hunting (primarily Paiute ground squirrels) was the second highest recorded use, ranging  
32 from 18 percent to 30 percent. Use of the OCTC associated with some type of civilian shooting  
33 activity during the months of March through May was between 85 percent and 95 percent of all  
34 recorded use. In addition, the majority of civilian use within the OCTC was recorded on Saturdays  
35 and Sundays, which coincides with military drill periods the IDARNG conducts (IDARNG  
36 2020a).

1 **3.9.4 Environmental Consequences – Socioeconomic**

2 **Issue Statement:**

3 **Socioeconomic:** How would construction and military training affect social and economic factors?

4 **Public Health and Human Safety:** How would military training activities affect public health  
5 and safety? How does public use, specifically shooting in the OCTC, affect the health and safety  
6 of soldiers?

7 **Indicators:**

8 **Socioeconomic:**

- 9 • Current and projected property values  
10 • Income from infrastructure construction activities  
11 • Number of jobs created  
12 • Economic stimulus associated with support activities

13 **Public Health and Human Safety:**

- 14 • Risk of training interaction with public land users  
15 • Historic data on incidents of public health and safety in the OCTC  
16 • Risk of vehicle accidents on Simco Road  
17 • Wildland fire (**Section 3.6.3**)

18 **Significance Criteria:** The analysis of potential socioeconomic and health and safety impacts  
19 evaluated the introduction of any undue economic hardship to an individual, company,  
20 municipality, state or federal entity, or the IDARNG, or an undue risk to human life or safety.  
21 Impacts would be considered significant if they were to cause the following:

- 22 • A substantial change in the local or regional population, or demographic distribution from the  
23 demands of additional population or population shifts
- 24 • A substantial change in the local or regional economy, employment, or spending or earning  
25 patterns
- 26 • An increased threat to human life or safety with no proposed action to address it (avoid, reduce,  
27 or mitigate)
- 28 • Disproportionate risks to children resulting from environmental health risks or safety risks
- 29 • A decrease in public service capacities so as to jeopardize public safety

1 **Short Term:** Less than 5 years. This is the estimated time to fully build out the infrastructure  
2 within the proposed project area.

3 **Long Term:** Greater than 5 years

4 **Region of Influence:** The ROI for the economic component includes both Ada and Elmore  
5 Counties. The ROI for the social environment includes the OCTC and proposed project area.

6 *Effects of the No Action Alternative – Socioeconomic*

7 **Socioeconomic:** There would be no effect to property values in the ROI as there are no identified  
8 changes to the area. However, local and statewide trends in home values would continue to change.

9 Effects from increased revenue sources associated with planned infrastructure and construction  
10 activities on the OCTC would continue to be beneficial to the local economy. There are no other  
11 planned constructions or infrastructure projects within the ROI so effects to the local economy  
12 would continue at current rates. Impacts to both local and landscape-wide revenue associated with  
13 infrastructure and construction activities within the OCTC are in the 2020 RPMP EA (ARNG and  
14 BLM 2020, Section 4.9.2, pg. 4-60) and addressed in Appendix L.

15 **Public Health and Human Safety:** Short- and long-term impacts to human health and public  
16 safety associated with livestock operations, transportation, and wildland fire within the ROI would  
17 be less than significant because there are no anticipated changes under the No Action Alternative.  
18 It is assumed that long-term management of the area would continue to address human health and  
19 public safety concerns at levels similar to those existing.

20 However, continued increases in public use of the OCTC, primarily associated with  
21 shooting-related activities, would have short- and long-term adverse effects on human health and  
22 public safety related to the increased risks for soldier and public safety. Currently, these impacts  
23 are being addressed with increased operational safety parameters and public education so that  
24 impacts are less than significant. While there is no way to determine if these management actions  
25 would continue to be effective in the long term, resulting in decreased threat to human life or  
26 safety, it is assumed that additional management actions would be put in place to address these  
27 threats (avoid, reduce, or mitigate them). As such, long-term impacts would be adverse, but less  
28 than significant.

29 *Effects of Alternative A – Socioeconomic*

30 **Socioeconomic**

31 Under Alternative A, short- and long-term socioeconomic impacts would be beneficial, but less  
32 than significant. Impacts to revenue associated with infrastructure and construction activities in  
33 the OCTC are assessed in the 2020 RPMP EA (Section 4.9.1.1, page 4-57) (ARNG and BLM  
34 2020). In addition to those, the IDARNG would expend an additional \$10.5 million on  
35 infrastructure and improvements outlined under Alternative A. These would be distributed to local  
36 contractors within the first 5 years of the project.



1 Revenue from IDL lease payments to the state endowment (IDL lease) and localized increased use  
2 of business, primarily in Elmore County, would also be beneficial in the short and long term, but  
3 less than significant. The IDL lease is approximately \$57,000 in year one and would increase by  
4 3 percent annually, resulting in more than \$1.3 million to the state endowment over the next  
5 20 years.

6 While the impacts to the local and regional economy would generally be beneficial (Appendix L),  
7 site-specific adverse economic impacts to residential home values in the adjacent area could be  
8 affected. Currently the median value of owner-occupied housing units in Elmore County  
9 (2015-2019) was \$153,800 (U.S. Census Bureau 2019). Based on regional housing trends in the  
10 last 3 years, it is assumed that the mean value has increased since 2018. However, the current home  
11 values are determined based on a number of factors, including housing availability in the area,  
12 condition of the home and area, amenities, and others (Fidell et al. 1995). Included in these factors  
13 is the presence and proximity of an existing military training base (Mountain Home AFB) and a  
14 small-arms firing range that is active year-round. Because the AFB and associated firing range  
15 have been in place for more than 75 years, it can be assumed that the majority of the impacts to  
16 home prices associated with military training activities have already been realized, and any  
17 additional impacts to home values in the adjacent area would be minimal (Booze-Allen &  
18 Hamilton 1994). As such, short- and long-term adverse impacts to home values in the area would  
19 be less than significant.

20 **Public and Occupational Health and Safety**

21 General impacts to human health and safety are assessed in the 2020 IDARNG EA  
22 (Section 4.9.1.1, pages 4-58 through 4-60). Site-specific impacts associated with wildland fire,  
23 military training, and transportation relative to the proposed project area would be both adverse  
24 and beneficial in the short and long term, but adverse impacts would be less than significant.  
25 Long-term impacts associated with reduced training conflicts in areas with high public shooting in  
26 the OCTC would be beneficial.

27 Under Alternative A, access to IDL-managed lands would be restricted to the public during  
28 military training operations so there would be minimal interaction or risk to public and soldier  
29 safety. Similarly, training activities on BLM-managed lands could be restricted to the public for  
30 up to 30 days, reducing the potential risk to public and soldier safety during that timeframe.  
31 Training outside of the 30-day window would increase the potential risk to the public and soldiers,  
32 but this would be limited based on existing training SOPs and BMPs, safety practices, and the  
33 remoteness of the site (**Section 3.2.2**).

34 Based on existing training SOPs and BMPs and safety practices, the IDARNG has not had a  
35 recorded training incident in the OCTC resulting in a member of the public being harmed as a direct  
36 or indirect result of training activities. While there have been no recorded incidents, use of the  
37 proposed project area for military training activities would increase the potential risk to public  
38 health and safety, which would be adverse in the short and the long term. However, based on the  
39 remoteness of the site, coupled with the IDARNG's SOPs and BMPs and safety practices  
40 implemented during training activities, interactions with and the potential risk to the public would  
41 be limited, so the impacts would be less than significant.

1 While the potential impacts to health and safety would be adverse in the proposed project area, the  
2 ability to disperse existing training activities outside the boundary of OCTC would reduce public  
3 and military interactions within the OCTC and the associated risk to health and safety for soldiers  
4 and the public. Based on the increasing public use of the OCTC, particularly shooting-related uses  
5 (IDARNG 2020a), any reduction in public and military interactions within the OCTC would be  
6 beneficial in the short and long term.

7 Any increased use of the proposed project area would increase the potential for wildland fire  
8 ignitions associated with more vehicles. This includes military vehicles and increased public use.  
9 As such, military use of the area would be adverse in the short and long term, but less than  
10 significant. All vehicles provide the potential for fire ignition sources, including improperly  
11 greased bearings, failing catalytic converters, older exhaust systems that allow carbon buildup, flat  
12 tires, engine backfires, and similar. For example, the exterior of a standard vehicle's exhaust  
13 system can reach temperatures of 2,800°F and easily ignite dry grass and brush when parked in  
14 these areas (Idaho Firewise 2018). As such, the use of any vehicles within the proposed project  
15 area would increase the probability of a wildland fire occurring.

16 However, on average there are more than 250 fires within the Impact Area annually, with an  
17 average size of 75 square feet or 0.002 acre, and an average response time between 1.5 and  
18 2.25 minutes for wildland firefighters (IDARNG 2013). These results were achieved because of  
19 the placement of wildland fire suppression assets onsite during training activities, and because of  
20 other SOPs that have successfully addressed wildland fire threat in the OCTC since 1987. Under  
21 Alternative A, the proposed project area would be managed under the IDARNG's wildland fire  
22 plan (IDARNG 2013). As such, IDARNG fire assets would be onsite during all training activities  
23 and would respond in the event of a training-related ignition.

24 These assets could also respond to wildland fires in the area caused by lightning or other  
25 nonmilitary uses. This would be in accordance with first response agreements with Elmore County  
26 and the BLM. Based on the IDARNG's resources and proximity to the western portion of the area,  
27 response time during nontraining events would be less than that of BLM or Elmore County fire  
28 services.

29 In addition to wildland fire suppression assets, the IDARNG would also remove a net total of  
30 10 miles of existing fence within the proposed project area, as well as conduct annual prescribed  
31 burns to reduce the amount and connectivity of fuels in the proposed project area. **Section 3.6.3**  
32 outlines the effects of fence lines and fuel buildup. By reducing these fences and the associated  
33 fuels, the probability of a wildland fire starting and spreading is considerably reduced. As such,  
34 while the Proposed Action would increase the probability of a wildland fire, the use of IDARNG  
35 wildland fire assets and reduction of fences and associated fuels would reduce the overall potential  
36 for a wildland fire. Reducing the overall potential for a wildland fire would reduce the overall risks  
37 related to structures on private property or danger to human life relative to existing conditions, and  
38 would be beneficial in the short and long term. Because there is no way to directly determine if  
39 these actions would result in the protection of life or a structure, the action would be less than  
40 significant.

1 Because all training operations, including convoy simulations, would be restricted to the OCTC or  
2 the proposed project area, transportation-related impacts to public safety would be limited to  
3 equipment crossing operations on Simco Road. As stated in **Section 2.3.5**, the basic plan for  
4 crossing vehicles over Simco Road is to use soldiers as flaggers. Signs would be placed on the  
5 road reading, “Flaggers ahead, use caution.” When there is public use of Simco Road, all military  
6 crossing would be stopped. As soon as the nonmilitary vehicle has passed Simco Road, military  
7 traffic would be allowed to continue crossing. Based on the isolated nature of the proposed  
8 crossing, coupled with the high visibility of the site and proposed crossing process, adverse risks  
9 to human health and safety would be minimal; as such, adverse impacts would be localized and  
10 less than significant in both the short and long term.

### 11 *Effects of Alternative B – Socioeconomic*

#### 12 **Socioeconomic**

13 The socioeconomic impacts under Alternative B would be nearly identical to Alternative A. The  
14 only difference would be the economic factor associated with an additional 20,000 linear feet of  
15 fence. Based on an estimated cost of \$5.26/lf for fencing, the additional fencing would add  
16 approximately \$105,000 to the proposed project. The increased benefit to the local economy  
17 associated with this alternative would be minimal, less than a 1% increase to Alternative A.

#### 18 **Public and Occupational Health and Safety**

19 Under Alternative B, impacts associated with wildland fire, transportation, and military training  
20 operations within the OCTC would be the same as Alternative A. Impacts associated with military  
21 training activities and public interactions on IDL-managed lands within the proposed project area  
22 would be the same as Alternative A, but the adverse impacts to health and safety on BLM-managed  
23 lands would be increased because there would be no way to limit public and military interactions  
24 during training activities. However, implementation of existing training SOPs and BMPs, safety  
25 practices, and the remoteness of the site would effectively reduce the threat to human life or safety,  
26 so the impact would be less than significant.

## 27 **3.10 TRANSPORTATION AND INFRASTRUCTURE**

28 This section describes the transportation and infrastructure within the ROI, which is the proposed  
29 project. Infrastructure includes trails, fences, gates, water pipeline, and the power line  
30 (**Section 2.3.6**). The transportation services this section describes include roadways and traffic,  
31 with the analysis centered on the proposed project area. **Section 3.2.35** describes access to the site.

### 32 **3.10.1 Affected Environment – Transportation and Infrastructure**

#### 33 *Transportation*

34 Simco Road is a well-maintained paved roadway that offers a north-to-south alternative from  
35 Interstate 84 at its northern end, 2 miles southeast of the Ada-Elmore county line, to Idaho 167 at  
36 its southern end, near Mountain Home AFB and Grand View. The road is used for industrial  
37 transportation regularly, including U.S. Ecology, the Boise hazardous- and radioactive-waste  
38 disposal company, and J.R. Simplot Co., the Boise agribusiness. U.S. Ecology offloads waste from  
39 rail cars on Union Pacific’s tracks, which cross Simco Road, and trucks it 35 miles south to its

1 Grand View processing and disposal site (Staats 2018). Dozens of semitrailer trucks carry cattle  
2 daily from Simplot’s Grand View feedlot to the new CS Beef Packers plant in Kuna. It is estimated  
3 that about 1,500 vehicles a day use Simco Road, half of them trucks (Staats 2018).

4 Access to the Simco Road crossing from  
5 the OCTC is along Crow Road, which is  
6 a 3.5-mile maintained gravel road  
7 authorized under a BLM ROW for use  
8 and maintenance. All existing trails  
9 (two-track roads) within the ROI,  
10 84.2 miles, are unimproved (Map 5).  
11 Unimproved trails are slightly used  
12 passageways that have been formed by  
13 vehicle use. These have not been graded  
14 or improved. Figure 3-3 shows a typical  
15 unimproved two-track road trail  
16 approaching Simco Road (center). This  
17 photograph was taken on the west side of  
18 the proposed Simco Road crossing  
19 location.



**Figure 3-3. Typical Two-Track Trail near Proposed Simco Road Crossing**

### 20 ***Fencing and Gates***

21 Livestock grazing is the primary land use on IDL- and BLM-managed lands in the region (**Section**  
22 **3.2.1**), and fencing is the primary infrastructure component used to manage livestock movement.  
23 Within the ROI, there is roughly 121,900 linear feet (23.1 miles) of fences on BLM- and BOR-  
24 managed lands, and 132,500 linear feet (25.1 miles) of fences on IDL-managed lands. The existing  
25 fence is four- or five-strand barbed wire with metal T-posts. There are approximately 14 wire  
26 tension gates within the ROI (Map 5).

### 27 ***Water Pipeline and Troughs***

28 Water for livestock use is distributed across the ROI through a series of pipelines (15.3 miles) to  
29 18 water troughs and one water tank (Map 5). The existing PVC water lines are placed in shallow  
30 trenches. There are no water lines on BLM-managed lands. All livestock water on BLM-managed  
31 lands is transported to authorized trough locations (**Section 3.2.1**).

### 32 ***Transmission Line***

33 An existing Idaho Power Company 138-kV overhead electrical transmission line bisects the  
34 proposed project area and is approximately 12.3 miles in length within the ROI (Map 5).

## 35 **3.10.2 Environmental Consequences – Transportation and Infrastructure**

36 **Issue Statement:** How would transportation be affected by improvements to infrastructure?

37 **Indicators:** Miles of constructed or improved roads

1 **Significance Criteria:** Any action damaging or removing infrastructure that would limit or  
2 discontinue current land uses or restrict transportation flow as to be unusable would be considered  
3 significant.

4 **Short Term:** During construction activities, less than 1 year

5 **Long Term:** After construction activities have been completed, in excess of 1 year

6 **Region of Influence:** The ROI is the proposed project area.

### 7 **3.10.3 Effects of the No Action Alternative – Transportation and Infrastructure**

8 Short- and long-term impacts would be less than significant. There would be no changes to  
9 infrastructure or transportation under the No Action Alternative. Bureau of Land Management-  
10 and IDL-managed parcels would continue to support land uses and levels of use with the existing  
11 infrastructure in place, and transportation patterns on Simco Road would be unchanged.

### 12 **3.10.4 Effects of Alternative A – Transportation and Infrastructure**

#### 13 *Infrastructure*

14 Under Alternative A, short-term impacts would be adverse, but less than significant, and occurring  
15 during construction or demolition activities. Long-term impacts associated with road  
16 enhancements, fencing or gate improvements, and infrastructure protection projects would be  
17 beneficial.

18 Construction and demolition activities associated with road enhancements, fencing, gates, and  
19 water lines would temporarily limit their use (Table 2-1, Map 6). However, the impacts would be  
20 short term. In contrast, construction and annual maintenance activities the IDARNG conducts  
21 would result in long-term benefits to local users because the infrastructure would be new,  
22 enhanced, or protected within the ROI. The life and usability of the infrastructure would also  
23 increase because the IDARNG would provide a fully funded infrastructure maintenance program.

24 There would be no short-term adverse effects to the existing transmission line because the resource  
25 would continue to operate at the current capacity. Similarly, it is assumed that training procedures  
26 and SOPs, including safety briefs, threat awareness, and other precautions used during training  
27 activities, would effectively avoid any damages to the existing infrastructure. In addition to  
28 training procedures, the IDARNG would use reflective or thermal tape and visible lights on power  
29 lines during nighttime training exercises. These SOPs would considerably reduce the potential for  
30 vehicle collisions with the power lines. In the event that existing infrastructure is damaged during  
31 training activities, the IDARNG would work with the land managers to compensate the affected  
32 party and address the affected infrastructure in a timely manner. As such, long-term impacts to the  
33 existing transmission line could be adverse, but less than significant.

1 **Transportation**

2 Short- and long-term impacts to transportation associated with the construction and operation of  
3 the Simco Road crossing would be localized and adverse, but less than significant. The majority  
4 of the construction required for the Simco Road Crossing was completed in 2017. The residual  
5 construction needed is on the east side of the road, outside the roadway, and would have little  
6 effect on traffic, mostly related to construction vehicles getting on or off Simco Road.

7 Operational use of the Simco Road crossing would likely result in short-term adverse impacts  
8 associated with reduced traffic flow during crossing events. However, the impacts would be  
9 spatially isolated and temporally limited based on the crossing SOPs outlined in **Section 2.3.5**. As  
10 such, the impact to transportation patterns would be less than significant.

11 **3.10.5 Effects of Alternative B – Transportation and Infrastructure**

12 The impacts under Alternative B would be nearly identical to Alternative A. The only difference  
13 would be the additional 20,000 linear feet of fence, and the increased maintenance associated with  
14 the increased wear on the enhanced road and gates associated with the additional 30 days of use  
15 per year. However, based on the limited use of the area by the public, the difference in intensity  
16 between Alternatives A and B is expected to be minimal, and less than significant.

17 **3.11 HAZARDOUS AND TOXIC MATERIALS AND WASTES**

18 Hazardous and toxic materials or substances are defined as materials or substances that pose a risk  
19 to human health or the environment. Hazardous waste is a waste with properties that make it  
20 potentially dangerous or harmful to human health or the environment. Hazardous and toxic  
21 materials and wastes are regulated under a broad range of federal statutes and state laws, including  
22 the Emergency Planning and Community Right-to-Know Act (EPCRA), the Pollutions Prevention  
23 Act, the Toxic Substances Control Act, and the Resource Conservation and Recovery Act (RCRA).  
24 The Comprehensive Environmental Response, Compensation, and Liability Act provides for  
25 certain short-term removal actions and long-term remedial responses to releases of hazardous  
26 substances. In Idaho, the DEQ retains primacy on enforcing most federal laws, except for EPCRA.

27 **3.11.1 Affected Environment – Hazardous and Toxic Materials and Wastes**

28 The ROI for HTMWs includes the proposed project area and the OCTC. Public lands such as IDL-  
29 and BLM-managed lands are often targets for illegal dumping. Common HTMWs on these lands  
30 are toxic spills, waste and hazardous waste dumping, and abandoned mine materials. The OCTC  
31 and the proposed project area are both located on public lands, and are sites recorded with illegal  
32 dumping. However, the illegal dumping in the proposed project area is generally isolated, confined  
33 to the northeast corner directly adjacent to the quarry, with limited amounts. In contrast, illegal  
34 dumping in the OCTC is much more widespread, with considerably more solid waste. In 2016, the  
35 IDARNG did a trash cleanup project that collected more than 60 tons of illegally dumped refuse.  
36 This was only a portion of the waste materials still remaining after the event.

37 Adjacent hazards to the ROI were evaluated. A hazardous liquid pipeline for jet fuel was identified  
38 approximately 2.8 miles south of the proposed project area, spanning from I-84 north of Mountain

1 Home southwest to the Mountain Home AFB (PHMSA 2017). It is unlikely a catastrophic event  
2 on the pipeline would affect the analysis area. The southeasternmost corner of the training area  
3 would be closest to the pipeline. Formerly used defense sites are located to the northeast and south  
4 of the east parcel, and near the proposed access point for the ROW on Simco Road (DEQ 2017).  
5 An RCRA cleanup site is located northwest of the west parcel and is not considered a risk to the  
6 ROI (DEQ 2017; EPA 2017).

### 7 **3.11.2 Environmental Consequences – Hazardous and Toxic Materials and Wastes**

8 **Issue Statement:** How would construction and military training affect the amount of or presence  
9 of regulated waste?

10 **Indicators:** Impact indicators include the risk of spilling of petroleum, oils, or lubricants (POL)  
11 material.

12 **Significance Criteria:** Impacts on or from hazardous materials and wastes would be considered  
13 significant if the Proposed Action or Alternatives would result in noncompliance with applicable  
14 federal or state regulations; an increase in the amounts of regulated waste used, generated, or  
15 procured beyond current management procedures, permits, and capacities; an increase in the  
16 exposure of persons to hazardous or toxic substances; or substantial restrictions on property use  
17 due to regulated waste or site remediation.

18 **Short Term:** During training or construction activities (1 year)

19 **Long Term:** Greater than 1 year

20 **Region of Influence:** The ROI for HTMWs includes the proposed project area and the OCTC.

### 21 **3.11.3 Effects of the No Action Alternative – Hazardous and Toxic Materials and Wastes**

22 Implementation of the No Action Alternative would have no effects with respect to HTMW in the  
23 ROI. The potential for illegal dumping within the area would likely remain at or near current levels.

### 24 **3.11.4 Effects of Alternative A – Hazardous and Toxic Materials and Wastes**

25 Implementation of Alternative A would not involve activities that would have short-term adverse  
26 impact on the type or quantity of regulated waste in the ROI. In the event of a spill during  
27 construction, BMPs would keep adverse impacts at less than significant levels. Long-term adverse  
28 HTMW impacts, while not anticipated, would exist due to annual training exercises and the  
29 presence of vehicles. Adverse impacts would be controlled through BMPs and ongoing regulatory  
30 compliance.

31 Short-term, less than significant local adverse impacts may occur during construction and  
32 infrastructure activities. Adverse construction impacts would be accidental and have limited

1 exposure to HTMWs. The IDARNG would carry spill kits and implement cleanup protocols  
2 immediately, with workers following BMPs and SOPs.

3 Military training and operations generate HTMWs. The most common accidental releases of  
4 HTMWs are fuel and lubricants from vehicles and refueling operations. Although specifically  
5 exempted from 40 CFR 302, the comprehensive list of hazardous toxic substances that are subject  
6 to reporting to state agencies, federal agencies, or both when released into the environment,  
7 petroleum products such as fuel and oil (POL) are also generally considered and treated as  
8 HTMWs. Idaho Army National Guard regulations and SOPs require that all POL releases be  
9 reported, excavated, and remediated. Contaminated soil is removed from the site to a permitted  
10 land farm. The area is refilled, seeded, and rested for at least 2 years.

11 Long-term releases occur from range operations, gunnery, and weapons qualifications. Releases  
12 within the OCTC Impact Area of copper, lead, lead compounds, and nitroglycerin are in reportable  
13 volumes per EPCRA. The IDARNG EMO prepares a Toxic Release Inventory (TRI), the reporting  
14 mechanism, annually. Although no munitions will be expended in the proposed project area except  
15 for blank ammunition, all components of training munitions, including those in that area, will be  
16 captured by the annual TRI and reported to EPA and DEQ.

17 Because training units receive instruction in environmental awareness and sustainability, and are  
18 mandated to uphold IDARNG, local, and federal laws and policies, the potential for HTMW spills  
19 is less than significant, and cleanup BMPs would be adequate to protect human life and the  
20 environment.

21 Alternative A may result in a long-term less than significant adverse impact associated with spent  
22 ammunition. Training activities would discharge blank ammunition, which can release small  
23 amounts of toxic materials including lead compounds, a substance the IDARNG is required to  
24 report to EPA and DEQ because production exceeds the minimum threshold for reporting. Lead  
25 compounds produced from training and discharged into the ROI are estimated at less than 1 pound  
26 annually based upon historical expenditure on the OCTC and the munitions component reports the  
27 Naval Ordnance Safety and Security Activity generates (NOSSA 2016).

28 **3.11.5 Effects of Alternative B – Hazardous and Toxic Materials and Wastes**

29 The effects under Alternative B would be the same as Alternative A.

30



1                   **4.0 COMPARISON OF ALTERNATIVES AND CONCLUSIONS**

2   **4.1 COMPARISON OF THE ENVIRONMENTAL CONSEQUENCES OF THE**  
3   **ALTERNATIVES**

4   The effects identified in **Section 3.0** are summarized in Table 4-1 to facilitate a clear comparison  
5   of the environmental effects of the No Action, Alternative A, which is IDARNG’s preferred  
6   alternative, and Alternative B.

7   **4.2 CONCLUSIONS**

8   Based upon the findings of this EA, implementation of the Proposed Action (Alternatives A and  
9   B) would not have significant adverse or beneficial impacts on any environmental, cultural,  
10   physical, or socioeconomic resources considered in this analysis. Identified design features and  
11   BMP and SOPs would be implemented as part of the Proposed Action based on the NEPA analysis.  
12   All effects resulting from implementation of the Proposed Action would be less than significant.  
13   Because the Proposed Action would not significantly affect any of the resources considered, no  
14   mitigation measures would be necessary.

15   The No Action Alternative would maintain existing conditions (in other words, the proposed  
16   project area would not be used for maneuver training activities, the IDARNG would not require a  
17   ROW from the BLM, and the IDARNG would not enter into a long-term lease with the IDL). The  
18   environmental consequences of implementing the No Action Alternative would adversely affect  
19   military training activities and public safety, would not provide the local economic benefits, and  
20   would provide no additional resources for suppression of wildland fires or management of natural  
21   and cultural resources identified for the Proposed Action. In addition, the No Action Alternative  
22   would not meet the IDARNG’s purpose and need of the project.

23   The purpose of this EA is to facilitate a decision and to ensure that policies defined by NEPA and  
24   contained in Army/BLM regulations, ARNG’s NEPA Handbook (2011), BLM’s NEPA Handbook  
25   (2008a), and other guiding documents and regulations are adhered to. Based upon the analysis of  
26   potential impacts, it has been determined that the Proposed Action(s) would not significantly affect  
27   the human environment. Therefore, an FONSI is the appropriate decision document for the  
28   IDARNG based on this EA; therefore, an EIS is not warranted.

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**Table 4-1. Alternative Comparison Matrix**

Technical Resource Area	Region of Influence	No Action Alternative	Alternative A	Alternative B
<p><b>Land Use (Livestock Grazing, Access and Recreation, and Military Training)</b></p>	<p>Livestock Any allotments and associated pastures intersecting with the proposed project area. Area: 45,433 acres</p> <p>Military training Proposed project area and the OCTC. Area: approximately 171,000 acres.</p> <p>Public access Proposed project area. Area: 28,430 acres</p>	<p>Livestock – Implementation of the No Action Alternative would have no impacts to the current livestock grazing conditions within the region of influence (ROI).</p> <p>Military Training – There are no short-term adverse impacts anticipated. Long-term effects would result in adverse impacts to military training operations, but would be less than significant. The only reason that long-term impacts are not significant is that units can separate the BCT (that is, conduct training operations over 30 days). However, this is not considered an optimal training practice, and is in conflict with NGR 350-1.</p> <p>Public Access – Short-term effects on public access would be less than significant because current uses would continue at present levels on BLM-managed and IDL-managed lands. With local and regional population increases, long-term impacts associated with increased access and use (both legal and illegal activities) could result in increased user conflicts. This would be adverse but less than significant.</p>	<p>Livestock – Short- and long-term impacts would be adverse and potentially beneficial, but less than significant. The permanent and temporary loss of forage associated with construction and training activities would be adverse, localized, and long term.</p> <p>Short- and long-term impacts associated with enhanced infrastructure would be beneficial, but localized.</p> <p>Military Training – Short-term adverse impacts would be less than significant because in the near-term, military training would continue to meet the stated goals at the OCTC. In contrast, long-term impacts would be beneficial for military training because operational lands would be added, which would allow for sustainable maneuver training and conformance with military training requirements.</p> <p>Public Access – Short-term impacts would be less than significant because military training activities would be limited to the OCTC and would not affect public use or access.</p> <p>Long-term impacts associated with restricted public access to BLM/BOR-managed lands for up to 30 days would be adverse, but spatially and temporally limited, and less than significant. There would be no impact on IDL-managed lands because public access is not required on IDL-managed lands.</p> <p>Long-term impacts associated with permanently closing 1 of 10 access points to the public would be adverse, but spatially limited, and less than significant.</p> <p>Long-term impacts associated with increased access and use (both legal and illegal activities) of the site could result in increased user conflicts. Based on the additional use by the IDARNG, impacts would likely be greater in intensity compared to the No Action Alternative, but would be less than significant.</p>	<p>Livestock – The long-term effects under Alternative B associated with accessibility to the site would be the same as Alternative A. The long-term effects under Alternative B associated with permanent loss of forage would be local and adverse, but less than significant. The type and intensity associated with the amount of temporary loss of forage would be similar to Alternative A, but the location and distribution of the impacts would be different.</p> <p>Military Training – Short-term effects would be the same as Alternative A. The long-term effects to military training activities associated with soldier readiness and proficiency would be the same as Alternative A.</p> <p>Limiting the ability of the IDARNG to restrict public access during training activities would likely result in increased user conflicts and reduce safety based on current trends in the OCTC. However, because this is the same management guidelines currently used for the OCTC, the impacts would be adverse, but less than significant.</p> <p>Public Access – The short-term effects would be the same as Alternative A.</p> <p>Because there would be no access restrictions and no closure of any access points, the impacts to public access would be less than Alternative A, and less than significant.</p> <p>Long-term effects related to increased population growth and increased future user conflicts would be greater than Alternative A.</p> <p>Without localized restrictions on public access during training operations, there is likely to be a greater number of user conflicts relative to A, but it would still be less than significant.</p>

Technical Resource Area	Region of Influence	No Action Alternative	Alternative A	Alternative B
<b>Air Quality and Climate Change</b>	Elmore and Ada Counties Area: approximately 2.6 million acres	Selecting the No Action Alternative would result in no changes in air quality. Air quality would continue to be affected by regional air flow patterns and the existing uses within the ROI would continue to contribute to local air quality at current rates.	Impacts from increases in fugitive dust and vehicle emissions during construction activities would be short term, localized, and adverse, but less than significant. Long-term air quality impacts from training activities would be adverse, but less than significant. Adverse impacts to GHG emission associated with global climate change would not be considerable and impacts would be less than significant. Effects from global climate change to the Proposed Action would be adverse, but less than significant, and would be centered on shifts in wildland fire impacts.	Air quality and climate change effects under Alternative B would be the same as Alternative A, which would be adverse, but less than significant.
<b>Noise</b>	Proposed project area, OCTC, Mountain Home AFB, small-arms range, and city of Mountain Home. Area: approximately 186,350 acres	Impacts to local receptors from existing noise sources, including military operations from the OCTC, Mountain Home AFB, and the small-arms shooting range, would continue under current conditions at current locations and levels.	Short- and long-term impacts to noise would be adverse, but less than significant and localized spatially and temporally. Impacts to noise receptors would be associated with construction activities in the short term and maneuver training activities in the long term. Proposed maneuver activities would fall within the existing noise contours for the OCTC; that is, proposed sources would not exceed existing levels.	The impacts would be the same as Alternative A.
<b>Soils</b>	Proposed project area, OCTC, and BLM NCA Management Area 3 Area: approximately 210,506 acres.	Implementation of the No Action Alternative would have no impacts on the current soil conditions within the ROI attributable.	Under Alternative A, short-term and long-term, local, less than significant adverse and beneficial effects would occur. Short-term localized adverse impacts to soils are anticipated from construction activities associated with road improvements, pipeline trenching, assembly areas and military training activities associated with engineering dig sites and maneuver training during annual events. Long-term localized beneficial impacts to soils are anticipated from the proposed roadway improvements and assembly areas. Adverse impacts at the landscape level are not anticipated.	Effects under Alternative B would be nearly identical to those anticipated under Alternative A. However, soil-disturbing activities under Alternative B would vary from Alternative A in the location and extent of potential effects associated with military engineering sites. Adverse impacts would be greater under this alternative because there would be less room for engineering sites, which could increase intensity of localized impacts. However, the overall impacts would still be less than significant.

Technical Resource Area	Region of Influence	No Action Alternative	Alternative A	Alternative B
<p><b>Biological Resources – Vegetation and Special-Status Species Plants</b></p>	<p>Proposed project area, OCTC, and BLM NCA Management Area 3 Area: approximately 210,506 acres.</p>	<p>Implementation of the No Action Alternative would have no effects to the current overall vegetation conditions or to slickspot peppergrass and Davis’ peppergrass or their habitats within the ROI.</p>	<p>Under Alternative A, short-term and long-term, local, less than significant adverse effects to vegetation would occur during land-disturbing activities. Short-term localized adverse impacts to vegetation are anticipated from construction activities and military training activities. Adverse impacts at the landscape level are not anticipated. Long-term beneficial effects to vegetation through implementation of IDARNG SOPs that require noxious weed monitoring and treatment, enhanced monitoring of general and special status species vegetation, enhanced wildland fire assets, rehabilitation of disturbed areas with native or desirable nonnative species, and off-site habitat enhancement of permanently impacted vegetation would occur.</p> <p>Under Alternative A, short- and long-term, local, less than significant adverse effects to slickspot peppergrass, specifically to habitat for potential slickspot peppergrass pollinators, would occur during ground-disturbing activities associated with infrastructure construction and military training. Adverse impacts at the landscape level are not likely to occur. Adverse impacts to PCH for the species are not likely to occur. Long-term beneficial effects to slickspot peppergrass and PCH through implementation of SOPs that require noxious weed monitoring and treatment, seeding disturbed areas with native or desirable nonnative species, and annual monitoring of slickspot peppergrass populations as well as an increase in wildland fire fighting assets would occur.</p> <p>Long- and short-term impacts to Davis’ peppergrass associated with military training activities would be localized and mostly beneficial. There would be no physical disturbance of Davis’ peppergrass plants or Davis’ peppergrass habitat (that is, playas) during construction, training operation, or maintenance activities because the occupied sites would be avoided by implementing IDARNG SOPs (Appendix G). These SOPs include the use of visual barriers around the perimeter of the two occupied playas within the proposed project area and integration of the off-limits areas into the IDARNG’s JBCP to protect the species and its habitat.</p>	<p>Effects to vegetation conditions under Alternative B would be nearly identical to those anticipated under Alternative A except for the location and extent of potential effects associated with military engineering sites. Adverse impacts would be greater under this alternative because there would be less room for engineering sites, which could increase intensity of localized impacts. However, the overall impacts would still be less than significant.</p> <p>Impacts to slickspot peppergrass and Davis’ peppergrass would be the same as Alternative A.</p>

Technical Resource Area	Region of Influence	No Action Alternative	Alternative A	Alternative B
<b>Biological Resources— Wildland Fire</b>	Proposed project area, OCTC, and BLM NCA Management Area 3 Area: approximately 210,506 acres.	The current fire risk of wildland fire would not change because there would be no change in fuels (amount or connectivity), fences (added or removed), or available resources. The BLM would remain the only fire asset available to suppress wildland fires in the area.	Short- and long-term impacts would be adverse due to increased ignition potential within the ROI, but these would be localized and less than significant because they would be addressed with active management and increased resources.  Reduced fences, increased resources (wildland fire assets for suppression and post-fire restoration), and greater accessibility for wildland firefighters would be beneficial in the short and long term.	Actions under Alternative B would be similar to Alternative A, except adverse impacts associated with fence line fuel accumulation would be greater because there would be more fence lines. However, the overall impacts would still be less than significant.
<b>Biological Resources – Wildlife (Special- Status Species and Migratory Birds)</b>	Proposed project area, OCTC, and BLM NCA Management Area 3 Area: approximately 210,506 acres.	Implementation of the No Action Alternative would have no effects on the current raptor prey habitat conditions or loss of habitat within the proposed project area. There would be no additional military training effects to nesting habitat or nesting migratory birds and raptors  Raptor prey habitat disturbances such as wildland fire, public recreation, and livestock grazing would occur at current rates on BLM and IDL managed lands.	Short- and long-term effects to raptor prey habitat, raptor breeding habitat, and nesting behavior from additional military related surface disturbance (military training, construction, and infrastructure) would be adverse, but not rising to the level of being measurable, and less than significant.  Long-term (up to 20 year) effects associated with additional military conservation actions and resources, as well as additional military wildland fire suppression assets, would likely benefit raptor prey habitat, raptor breeding habitat and nesting behavior.	Short- and long-term impacts to raptor prey habitat, raptor breeding habitat, and nesting behavior associated with Alternative B (military training, construction, and infrastructure) would be similar to Alternative A.  Alternative B military training dig site restrictions to a predefined area would also be temporary, less-than-significant impacts to raptor prey habitat with pre-site conditions returning within one growing season.  Alternative B nonmilitary fencing reduction (8 miles) would be slightly less than Alternative A but would also have no measurable effect on raptor prey habitat and would be less than significant.
<b>Cultural Resources</b>	Proposed project area. Area: 28,430 acres	The No Action Alternative would maintain existing uses. Therefore, existing uses of the area, including livestock grazing and operations, public access and recreation, and natural erosion, would continue at current rates and could adversely affect known cultural resources. However, because there are no monitoring programs in place, there is no way to fully determine the long-term impacts.	Long-term effects to historic structures or important Tribal or cultural resources would be beneficial, but less than significant, because the IDARNG’s SHPO-approved ICRMP and Cultural Protection Plan would be fully implemented.	The affects to cultural resources would be the same as Alternative A.

Technical Resource Area	Region of Influence	No Action Alternative	Alternative A	Alternative B
<b>Socioeconomic</b>	Elmore and Ada Counties. Area: approximately 2.6 million acres	There would be no effect to property values in the ROI as there are no identified changes to the area. However, local and statewide trends in home values continue to change. Effects from increased revenue sources associated with planned infrastructure and construction activities on the OCTC would continue to be beneficial to the local economy. There are no other planned constructions or infrastructure projects within the ROI, so effects to the local economy would continue at current rates.	Short- and long-term socioeconomic impacts associated with increased revenue from proposed infrastructure and construction activities, as well as the IDL lease agreement, would be beneficial. Short- and long-term impacts to home values in the area could be adverse, but would be less than significant as they have already been affected by existing military training activities.	The socioeconomic impacts under Alternative B would be nearly identical to Alternative A. The only difference would be the economic factor associated with an additional 20,000 linear feet of fence. Based on an estimated infrastructure cost, this increased benefit to the local economy associated with this alternative would be minimal, less than 1%.
<b>Public Health and Safety</b>	The proposed project area and OCTC. Area: approximately 171,000 acres.	There would be no short- or long-term impacts associated with livestock operations, wildland fire, and transportation as there are no proposed changes that would affect them. Continued increases in public use, primarily shooting activities, of the OCTC would continue to be adverse based on the potential safety risk for soldiers and public, but this would be less than significant based on existing management and safety practices.	Impacts associated with wildland fire, military training, and transportation relative to the proposed training area would be both adverse and beneficial in the short and long term. Adverse impacts would be less than significant. Long-term impacts associated with reduced training conflicts in areas with high public shooting in the OCTC would be beneficial.	Impacts associated with wildland fire, transportation, and military training operations within the OCTC and IDL-managed lands within the proposed project area would be the same as Alternative A. Adverse impacts to health and safety associated with military training operations on BLM-managed lands in the proposed project area would be greater in comparison to Alternative A because there would be no way to limit public/military interactions during training activities. However, implementation of existing training SOP and BMPs, safety practices, and the remoteness of the site would effectively reduce these risks, so adverse impacts would be less than significant.

Technical Resource Area	Region of Influence	No Action Alternative	Alternative A	Alternative B
<b>Transportation and Infrastructure</b>	Proposed project area. Area: 28,430 acres	There would be no effect on transportation or infrastructure because there would be no changes to either under this alternative. BLM- and IDL-managed parcels would continue to support current land uses and levels of use with the existing infrastructure in place, and transportation patterns on Simco Road would be unchanged.	<p>Infrastructure – Short-term impacts associated with construction or demolition activities would be adverse, localized, but less than significant because they would temporarily limit the use of existing infrastructure. There would be no effect on power lines or power distribution as there would not be actions that affected either of these.</p> <p>Long-term impacts associated with new and enhanced infrastructure, and infrastructure protection projects would be beneficial.</p> <p>Transportation – Short- and long-term impacts to transportation associated with the construction and operation of the Simco Road crossing would be localized and adverse, but less than significant.</p>	The impacts under Alternative B would be nearly identical to Alternative A. The only difference would be the additional 20,000 linear feet of fence, and increased wear on the enhanced road and gates associated with additional 30 days of use per year. However, based on the limited use of the area by the public, the difference in intensity between Alternatives A and B is expected to be minimal, and less than significant.
<b>Hazards and Toxic Materials and Waste</b>	The proposed project area and OCTC. Area: approximately 171,000 acres.	Implementation of the No Action Alternative would have no effects with respect to HTMW in the ROI. The potential for illegal dumping within the area would likely continue under current trends.	<p>The potential for HTMW spills or releases would increase in both the short term and long term at the local level from increased vehicle traffic in the ROI. All spills would be managed under existing BMP/SOPs. In addition, the site would be actively monitored for regulatory compliance. As such, impacts would be less than significant.</p> <p>Long-term accumulation of spent blank ammunition would have an adverse impact but would be less than significant based on the limited amount of ammunition used and the total area.</p>	The affects under Alternative B would be the same as Alternative A.

Notes:

AFB = Air Force Base

SHPO = State Historic Preservation Office



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1

## 6.0 LIST OF PREPARERS

2 The following is the list of individuals who were involved in the preparation of this EA (Table 6-1).

3 **Table 6-1. Individuals Involved in the Preparation of the Environmental Assessment**

Name	Title	Role/Area of Responsibility	Degree and Years of Experience
<i>IDARNG Resource Team</i>			
Charles Baun	Conservation Branch Manager	Project Manager NEPA Review Socioeconomics	M.S. Nat. Resource Management B.S. Biology 23 years of experience
CM2 Chad Melanese	Army Facilities Management Officer	Planning and Infrastructure	B.S. Environmental Science Army Engineering/PM 20 years of experience
SGT. Johnathan Sorenson	Army Facilities Management Officer	Planning and Infrastructure	
CPT Lucas Fox	Army Facilities Management Officer	Planning and Infrastructure	Fire Ecology & Management 2 years of experience
Kevin Warner	Natural Resources Specialist	Wildlife, Special-Status Species - Wildlife	M.S. Biology B.S. Zoology B.S. Botany 20 years of experience
Jake Fruhlinger	Cultural Resources Specialist	Cultural Resources	M.A. Anthropology B.A. Anthropology 16 years of experience
Tessa Amend	Cultural Resources Specialist	Cultural Resources	M.A.A. Applied Anthropology B.A. Anthropology 2 years of experience

<b>Name</b>	<b>Title</b>	<b>Role/Area of Responsibility</b>	<b>Degree and Years of Experience</b>
Zoe (Tinkle) Duran	Natural Resources Specialist	Soils, Vegetation, Invasive Species, Special-Status Species Plants	M.S. Biology B.S. Biology 6 years of experience
Megan Yrazabal	Natural Resources Technician	Livestock Grazing, Wildland Fire	B.S. Biology 3 years of experience
CPT Pam Hess	Geologist	Soils	B.S. Geology M.A. Biology Graduate Certificate GIS 12 years of experience
Nathan Bentley	IDARNG GIS Program Manager	GIS	B.S. Geography and Earth Resources 28 years of experience
SGT Michael Nau	GIS Technician	GIS	History and GIS Studies 6 years of experience
Chelsea Hall	GIS Real Property Coordinator	GIS	Environmental Science 4 years of experience
Christopher Hampson	Environmental Protection Specialist	NEPA Review	B.S. Environmental Management and Protection 13 years of experience
<b><i>BLM Resource Team</i></b>			
Brent Ralston	Four Rivers Field Manager	--	--
Amanda Hoffman	Morley Nelson Snake River Birds of Prey Manager	--	--
Todd Bowen	NEPA Specialist	--	--
Dean Shaw	Archaeologist	--	--
Joseph Weldon	Wildlife Biologist	--	--

<b>Name</b>	<b>Title</b>	<b>Role/Area of Responsibility</b>	<b>Degree and Years of Experience</b>
Ann Marie Raymondi	Ecologist	--	--
Lonnie Huter	Weed Management Specialist	--	--
Jared Fluckiger	Outdoor Recreation Planner	--	--
Austin Welke	Rangeland Management Specialist	--	--
Charlotte Alexander	Realty Specialist	--	--
Michael McGee	Resource Coordinator	--	--

B.A. = Bachelor of Arts

B.S. = Bachelor of Science

GIS = geographic information system

M.A. = Master of Arts

M.S. = Master of Science

PM = Project Manager

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## 7.0 AGENCIES AND INDIVIDUALS CONSULTED

1  
2 Table 7-1 presents a list of the agencies and organizations contacted during the preparation of this  
3 document.

**Table 7-1. Agencies and Organizations Contacted**

Name	Title and Affiliation	Mailing Address
Rick Ward/ Bill Bosworth	Idaho State Department of Fish and Game	Idaho Department of Fish and Game 3101 S Powerline Road Nampa, ID 83686
Barb Chaney/ Chris Reighn	U.S. Fish and Wildlife Service, Idaho Fish and Wildlife Office	U.S. Fish and Wildlife Service Idaho State Office 1387 S. Vinnell Way Boise, ID 83709
Tricia Canaday	Deputy State Historic Preservation Officer, Idaho State Historical Society	State Historic Preservation Office and Historic Sites Archaeological Survey of Idaho 210 Main Street Boise, ID 83702-7264
Dean Johnson/ Ruth Luke	Senior Resource Specialist, Idaho Department of Lands	Idaho Department of Lands Southwest Supervisory Area 8355 W. State Street Boise, ID 83714
Penny Meyers	District Administrator, Mountain Home Highway District	Mountain Home Highway District P.O. Box 756 1208 NW Mashburn Mountain Home, ID 83647
Amanda Hoffman	Manager, Morley Nelson Snake River Birds of Prey NCA, Four Rivers Field Office, Boise District BLM	Bureau of Land Management 3948 Development Avenue Boise, ID 83705
Christen Marve Griffith	Regulatory Project Manager, Boise Field Office	U.S. Army Corps of Engineers Boise Regulatory Office 720 Park Boulevard, Suite 245 Boise ID, 83712
Nathan Small	Chairman, Shoshone-Bannock Tribes	Shoshone-Bannock Tribes P.O. Box 306 Fort Hall, ID 83203
Carolyn Boyer-Smith	Cultural Resources Director, Shoshone-Bannock Tribes	Shoshone-Bannock Tribes P.O. Box 306 Fort Hall, ID 83203

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Eric Hawley	Chairperson, Burns Paiute Tribe	Burns Paiute Tribe 100 Pasigo St. Burns, OR 97720
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- 1 **Appendix A**
- 2 **Maneuver Training Summary – Activities and Equipment**

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## **Appendix A. Maneuver Training Summary – Proposed Simco Training Area**

The following description summarizes Department of Army doctrine relative to maneuver exercises, equipment, and number of soldiers for each type of anticipated training exercise. These exercises are the same as those historically and currently conducted on the Orchard Combat Training Center (OCTC).

### **Maneuver Exercises:**

- Platoon/Company/Battalion Movement to Contact:

Movement to contact is an offensive task designed to develop the situation and to establish or regain contact. The goal is to make initial contact with a small element while retaining enough combat power to develop the situation and mitigate the associated risk. A movement to contact also creates favorable conditions for subsequent tactical actions. The commander conducts a movement to contact when the enemy situation is vague or not specific enough to conduct an attack. Forces executing this task seek to make contact with the smallest friendly force feasible. A movement to contact may result in a meeting engagement. Once contact is made with an enemy force, the commander has five options: attack, defend, bypass, delay, or withdraw. The Army includes search and attack and cordon and search operations as part of movement to contact operations.

- Platoon/Company/ Battalion Attack:

An attack is an offensive task that destroys or defeats enemy forces, seizes and secures terrain, or both. Attacks incorporate coordinated movement supported by fires. They may be either decisive or shaping operations. Attacks may be hasty or deliberate, depending on the time available for assessing the situation, planning, and preparing. However, based on mission variable analysis, the commander may decide to conduct an attack using only fires. An attack differs from a movement to contact because, in an attack, the commander knows part of the enemy's disposition. This knowledge enables the commander to better synchronize and employ combat power more effectively in an attack than in a movement to contact. Subordinate forms of the attack have special purposes and include the ambush, counterattack, demonstration, feint, raid, and spoiling attack. The commander's intent and the mission variables of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) determine which of these forms of attack are employed. The commander can conduct each of these forms of attack, except for a raid, as either a hasty or a deliberate operation.

- Platoon/Company/ Battalion Hasty Defense:

This technique is for the leading elements to commit forces and push forward to claim enough ground to establish a security area anchored on defensible terrain. The main force moves forward or rearward as necessary to occupy key terrain and institutes a hasty defense that progresses into a deliberate defense as time and resources allow.

## **Types of Units:**

### **Armor Company:**

14 Tanks  
62 Soldiers  
1 113 armor personnel carrier  
1 HMMWV

### **Mechanized Infantry Company:**

14 Bradley fighting vehicle  
135 infantry  
1 113 armored personnel carrier  
1 HMMWV

### **Engineer Company:**

9 M2 A3s  
95 Personnel  
5 HMMWV

## **Types of vehicles (See Figures Bellow)**

- M1 Series Tanks (Maneuver)
- M2 Series Bradley Fighting Vehicles
- M113 Armored Personnel Carriers
- M88 Recovery (Support)
- HMMWV (Support)
- LMTV
- HEMMT

# M1 Series Tanks



**Weight: 67.8-68.7 tons**

**Length: 29.6ft**

**Width: 12ft**

**Height: 8ft**

**Max Speed: Approx. 40 MPH**

**Description: The M1A2 SEPv2 combat (main battle) tank uses high speed, maneuverability, and a variety of weapons to attack and destroy enemy tanks, equipment, and forces. The tank provides protection from enemy weapons.**

## M2 Series Bradly Fighting Vehicles



**Weight: 27.6 tons**

**Length: 21.5ft**

**Width: 12ft**

**Height: 9.8ft**

**Max Speed: Approx. 35 MPH**

**Description: The role of the M2 infantry fighting vehicle is to transport infantry on the battlefield, to provide fire cover to dismounted troops and to suppress enemy tanks and fighting vehicles. The M2 carries three crew, commander, gunner and driver, plus six fully equipped infantry men.**



# M113 Armored Personnel Carriers



**Weight: 12.3 tons**

**Length: 14.5ft**

**Width: 8.4ft**

**Height: 7.8ft**

**Max Speed: Approx. 42 MPH**

**Description: The role of the M113 armored personnel carrier is a lightly armored full tracked air transportable personnel carrier designed to carry personnel and certain types of cargo. The M113 has a two-man crew and can transport up to 11 additional soldiers (total of 13).**

## M1151A2 HMMWV (Humvee)



**Gross Vehicle Weight: 12,100 lbs.**

**Curb Weight: 10,300 lbs.**

**Length: Approx. 15ft**

**Width: 7ft**

**Height: Approx. 6ft**

**Max Speed: Approx. 70 MPH**

**Description: The HMMWV is a lightweight, diesel-powered, four-wheel-drive tactical vehicle built on the M998 chassis common to all of its configurations allowing it to carry military equipment including machine guns and anti-tank missile launchers.**

# M88A2 Hercules



**Weight: 63.5 tons**

**Length: Approx. 27ft**

**Width: 11.25ft**

**Height: Approx. 10ft**

**Max Speed: Approx. 26 MPH**

**Description: M88A2 HERCULES Heavy Recovery Vehicle is a combat-proven, fully-tracked, steel-armored recovery vehicle that performs hoisting, winching, and towing operations for today's heaviest combat systems. It is equipped to assist in the repair of disabled vehicles under general field conditions and to recover vehicles under hostile fire.**

# M1078 LMTV



**Weight: 22,904 lbs.**

**Length: Approx. 22ft**

**Width: Approx. 8ft**

**Height: Approx. 9ft**

**Max Speed: Approx. 60 MPH**

**Description: The M1078 LMTV is a family of 4x4 and 6x6 tactical trucks with 2.5- ton, 5- ton, 9-ton and 10-ton payload capabilities.**

# **M977A4 Heavy Expanded Mobility Tactical Truck (HEMTT):**



**Weight: 42,500 lbs.**

**Length: Approx. 34ft**

**Width: Approx. 8ft**

**Height: Approx. 10ft**

**Max Speed: Approx. 60 MPH**

**Description: The Heavy Expanded Mobility Tactical Truck (HEMTT) is an eight-wheel drive, diesel-powered, 10-short-ton (9,100 kg), tactical truck used by the US military.**

# SIMCO TRAINING AREA

## Introduction

The Idaho Army National Guard (IDARNG) is proposing to use approximately 30,000-aces of Bureau of Land Management (BLM) and Idaho Department of Lands (IDL) (Map 1), commonly referred to as Proposed Simco Training Area, for Heavy Maneuver training activities. The proposed training area would be segmented into three (3) separate lanes. These training lanes are designed for standard Armor Company training scenarios with various attachments. The purpose of this information paper is to describe what an Armor company is required to do while utilizing the area. Detailed tasks and standards for these maneuvers can be found in enclosure 1.

## Definition of Terms and Organization

For the purposes of this information paper, an Armor company is a unit consisting of 14 total M1 Abrams Main Battle Tanks with support equipment and vehicles. In addition to the Armor company, a Engineer company normally accompanies the Armor company. An engineer company consists of various heavy and light vehicles to include M1A3 Bradley Fighting Vehicles and various construction equipment necessary to complete digging operations in support of an Armor Company. For an expanded list of maneuver exercises, equipment, and number of soldiers for each type of anticipated training exercise see Enclosure below. Regardless of the type or size of the unit, there would be no live fire component associated with any maneuver activities conducted in the proposed Proposed Simco Training Area training area.

## Armor Company

### Conduct and Attack

During an attack an Armor Company has many tasks that must be completed. After planning and rehearsals of the movement have taken place a tank company must:

- Move from assembly area
- After identifying the object that must be attacked, emplace security around the objective
- Establish and occupy assault and support-by-fire position.
- Maneuver to gain and maintain enemy contact
- The company maneuvers to gain positional advantage so they can seize, retain, and exploit the objective.

The 14 tanks work in unison to take up various positions around the objective so an attack can be accomplished.

### Conduct a Defense

A defense with an armor company is accomplished by utilizing defensive positions to engage the enemy from a fortified position denying advancement from the enemy. In order to do this an Armor company will:

- Gain and maintain contact with enemy forces

- The company will conduct actions from positions that maximize protection as appropriate to disrupt and fix the enemy
  - Avoid exposure to enemy
  - Incorporate obscuration effects (smoke)
  - Control enemy movement
- Maneuver to alternate or supplementary battle positions based on enemy's actions.

### Conduct a Movement to Contact

An Armor company conducts a movement to contact through maneuvering over a large space in order to find, gain, and maintain enemy contact. This is done without knowledge of the enemy location, and is an extensive large-scale maneuver activity. Specific tasks an armor company must take are:

- Gain and maintain enemy contact with the smallest element possible (2 Tanks).
- Upon contact, overwhelm the enemy to prevent them from conducting a counter attack.
- Security forces maneuver to identify gaps within the enemy's defense and update on composition and disposition within the enemy forces.
- Main body (4-8 Tanks) assault enemy or reinforce the engaged forces

## Engineer Company

### Emplace Situational Obstacles

The Engineer Company is responsible for emplacing temporary situation obstacles. Triggering events are identified and reported. Most commonly, this engineer task is associated with an Armors company "Conduct and Area Defense"

- The Company emplaces temporary situational obstacles that can incorporate any type of obstacle that can be employed within the time required. Examples of obstacles can be but are not limited to:
  - Emplacement of Concertina Wire
  - Digging a Tank Ditch (3 meters deep, 8 meters across and extends from one terrain feature to another)
  - Mine field
- Provide security operations and physical protection on the obstacle site

### Construct a Vehicle Fighting Position

An Engineer company would assist an Armor company by conducting a defensive training activity by digging a fighting position to give a tank necessary protection. An Engineer company coordinates with the armor commander to determine the best location and type of these positions. Using organic tools they would:

- Construct a hasty position (forms parapets around vehicle to improve protection from a High-Explosive Antitank projectile)
- Excavates and builds up a frontal parapet as high as practical.

- Improves protection by excavating deeper and extending the parapet around the sides of the vehicles.
- Constantly improves hasty positions into deliberate positions as time permits
- Deliberate positions provide protection from kinetic energy hypervelocity projectiles and are accomplished in four parts
  - Hull defilade
  - Concealed access ramp or route
  - Hiding location
  - Turret defilade
- Adjust position depths for the surround terrain, such as position depth.



**Enclosure**

**Expanded Description of Military Training Activities**

# Training and Evaluation Outline Report

**Status: Approved**

**04 Oct 2016**

**Effective Date: 20 Jan 2017**

**Task Number:** 17-CO-1074

**Task Title:** Conduct a Movement to Contact - Armor & Mechanized Infantry Company Team (ABCT)

**Distribution Restriction:** Distribution authorized to the DOD and DOD Contractors only for added control. This determination was made on 03OCT2016.

**Destruction Notice:** Destroy by any method that will prevent disclosure of contents or reconstruction of the document

**Foreign Disclosure: FD1** - This training product has been reviewed by the training developers in coordination with the MCoE G2 foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

## Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 3-90.1	Armor and Mechanized Infantry Company Team	Yes	Yes
	ATP 3-90.5	THE COMBINED ARMS BATTALION	Yes	No

**Conditions:** The company team is conducting operations in a live training environment independently or as part of a battalion or larger force and receives an operation order (OPORD) to conduct a movement to contact to develop the situation and establish or regain contact with the enemy. The company is conducting operations at night in a dynamic and complex operational environment (OE) against a hybrid threat. The order includes the following control measures: Phase lines, contact points, checkpoints, areas of operation (AO), axes of advance, and an objective in-depth to ensure contact with the enemy. All necessary personnel and equipment are available. The company has guidance on the rules of engagement (ROE).

**LFX Condition:** If the movement to contact is executed during a live fire exercise (LFX), refer to Training Circular (TC) 3-20.10 for additional training conditions (TBP).

**Dynamic Operational Environment:** Three or more operational and two or more mission variables change during the execution of the assessed task.

**Complex Operational Environment:** Changes to four or more operational variables impact the chosen friendly course of action (COA)/mission.

**Hybrid Threat:** Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements unified to achieve mutually benefiting effects. Some iterations of this task should be performed in MOPP 4.

**Standards:** The company team conducts the movement to contact in accordance with (IAW) ATP 3-90.1, the order, and the commander's guidance. The company develops the situation, gains and maintains contact, disrupts, fixes, and maneuvers to defeat or destroy the enemy, and follows through. The company moves no later than (NLT) the time specified in the order. The company reports required intelligence information. The company complies with the ROE.

**LFX Standard:** The company team conducts the movement to contact during a LFX IAW TC 3-20.10 (TBP).

The rifle and armor company has at least 9 of 10 (85%) of the leaders and 80% of the Soldiers present at training against the company's authorized strength. The company attains 90% on performance measures, 100% on critical performance measures, and 90% on leader performance measures achieving a T (fully trained).

**Note:** The rifle and armor company leaders are the commander, executive officer, first sergeant, platoon leader (x3), platoon sergeant (x3), and fire support officer.

**Live Fire Required:** LFX

**Objective Task Evaluation Criteria Matrix:**

Plan and Prepare		Execute					Assess	
Operational Environment	Training Environment (L/V/C)	Training/Authorized % of Leaders Present at	% of Soldiers Present at	External Eval	% Performance Measures 'GO'	% Critical Performance Measures 'GO'	% Leader Performance Measures 'GO'	Task Assessment
CO & BN								
Dynamic and Complex (4+ OE Variables and Hybrid Threat)	Night	>=85%	>=80%	Yes	>=91%	All	>=90%	<b>T</b>
		75-84%			80-90%		80-89%	<b>T-</b>
Dynamic (Single Threat)	Day	65-74%	75-79%	No	65-79%	<All		<b>P</b>
		60-64%	60-74%		51-64%		<=79%	<b>P-</b>
Static (Single Threat)		<=59%	<=59%		<=50%			<b>U</b>

**Remarks:** None

**Notes:** None

**Safety Risk:** High

**Task Statements**

**Cue:** The company receives an operation order (OPORD) to conduct a movement to contact to develop the situation and establish or regain contact with the enemy.

DANGER

None

**WARNING**

None

**CAUTION**

None

## Performance Steps and Measures

**NOTE:** Assess task proficiency using the task evaluation criteria matrix.

**NOTE:** Asterisks (\*) indicate leader steps; plus signs (+) indicate critical steps.

STEP/MEASURE	GO	NO-GO	N/A
<b>Plan</b>			
1. The company gains and/or maintains situational understanding using available communications equipment, maps, intelligence summaries, situation reports (SITREPs), and other available information sources. Intelligence sources may include a company intelligence support team (COIST), a human intelligence (HUMINT) team, a signal intelligence (SIGINT) team, and an imagery intelligence (IMINT) team to include unmanned aircraft systems (UAS) and unattended ground sensors (UGSs).			
+ 2. The company commander receives the mission to conduct a movement to contact and begins execution of troop-leading procedures (TLP). (Refer to Task 71-CO-5100, Conduct Troop-leading Procedures).			
* 3. The company commander issues the warning order (WARNORD) that may include the following:			
a. General location of operation.			
b. Initial task organization.			
c. Initial operational timeline.			
d. Reconnaissance to initiate.			
e. Movement to initiate.			
f. Planning and preparation instructions (to include planning timeline).			
g. Information requirements.			
h. Commander's critical information requirements.			
+ 4. The company commander conducts mission analysis focusing on the directed mission, enemy forces and their capabilities, terrain and weather effects, troops available, time available to execute the operation, and civil considerations (METT-TC). The commander:			
a. Plans to gain or regain contact with the enemy using the smallest unit possible.			
b. Plans decisive and shaping operations.			
c. Determines organization of forces for the movement to contact while identifying one the following security forces (advance guard, flank and rear guard, or main body.)			
d. Plans and conducts necessary reconnaissance by taking the following actions:			
(1) Identify (control measures) a limit of advance (LOA) or a forward boundary, tentative rally points, phase lines, contact points, and checkpoints as required.			
(2) Identify likely enemy avenues of approach.			
(3) Identify routes, bridges, and roads.			
(4) Identify obstacles and restrictive terrain.			
(5) Employs reconnaissance and security elements as early as possible to collect information that satisfies the company commander's information requirements for planning.			
e. Develops a flexible scheme of maneuver to identify conditions for transitioning to attack, defend, or bypass. The commander emphasizes the capabilities of the formation as follows:			
(1) Maximizes the overall tactical mobility of vehicles to position combat power in advantageous positions.			
(2) Maximizes use of the security force to overwatch critical areas, danger areas, or key terrain.			
f. Plans and coordinates with its higher headquarters for enabling assets (engineers, scouts, medics, mortars, sustainment, UAS, etc.) as required.			
Note: UAS can provide operational capability in the following areas: (1) Remote reconnaissance and security. (2) Augment force protection. (3) Target acquisition. (4) Battle damage assessment.			
g. Develops graphic control measures (GCM) for:			
(1) Movement to the objective.			
(2) Hasty defense.			
(3) Direct fires throughout the operation.			
(4) Fire support throughout the operation.			
h. Plans fires:			
(1) Plans targets based on known or suspected enemy locations and danger areas.			
(2) Refines targets based on the reconnaissance effort as the operation progresses.			
(3) Assigns planned priority of fires to the forward security force.			
(4) Plans to echelon fires as required based on weapons systems available.			
i. Plans protection as follows:			
(1) Allocates task-organized engineer forces to support potential breaching operations.			
(2) Integrates higher headquarters' obstacle intelligence (OBSTINTEL) requirements into the priority intelligence requirements (PIR) and reconnaissance plan.			
(3) Confirms immediate unit-wide dissemination of OBSTINTEL.			
(4) Coordinates for and distributes terrain visualization products from the higher headquarters' terrain section's Digital Topographic Support System (DTSS) for planned breach sites, possible bypasses, defending enemy positions and/or key weapons, and friendly support by fire (SBF) positions.			

(5) Maintains the flexibility to mass attached engineers to breach significant obstacles.			
(6) Plans the requirement for route maintenance, clearance, and repair as required.			
(7) Identifies required mobility tasks throughout the operation.			
(8) Employs organic chemical, biological, radiological, and nuclear (CBRN) detection kits to maximize protection across the company.			
(9) Immediately, disseminates information regarding any detected CBRN threats or hazards throughout the company immediately.			
(10) Develops decontamination plans based on the commander's priorities and vulnerability assessment.			
(11) Disseminates information regarding planned and active decontamination site.			
j. Plans sustainment:			
(1) Plans for the increased consumption of Class III, V, and Class VIII supplies.			
(2) Plans for casualty evacuation.			
(3) Plans for increased equipment maintenance requirements.			
(4) Plans to position sustainment assets as far forward as possible.			
k. The company commanders integrates risk management throughout TLP.			
+ 5. The company commander issues an OPORD.			
* 6. The company commander conducts confirmation briefs with subordinates immediately after the OPORD is issued to ensure subordinates understand the commander's intent, specific tasks, concept of the operation, and relationship the between their mission and the other units' missions in the operation.			
<b>Prepare</b>			
* 7. The company commander and subordinate leaders prepare for movement to contact. The company takes the following actions:			
a. Supervises subordinates and continues priorities of work.			
b. Conduct a backbrief to the BN commander or S3 prior to the rehearsal.			
c. Conducts pre-combat checks and inspections.			
d. Conducts rehearsals and taking the following actions:			
(1) Actions on enemy contact.			
(2) Hasty defense.			
(3) Consolidation and reorganization.			
(4) Actions to report and transition criteria IAW the commander's intent.			
e. Employs UAS in support of reconnaissance and security efforts:			
(1) Confirms the most likely enemy locations.			
(2) Reconnaissance of routes, bridges, and roads.			
(3) Reconnaissance of obstacles, key and restrictive terrains.			
f. Finalizes coordination and support (adjacent units, passage of lines, combat enablers, etc.).			
g. Determines linkup requirements as necessary.			
h. Conducts protection activities.			
i. Positions sustainment assets forward.			
j. Issues fragmentary orders (FRAGORDs), as necessary, to address changes to the plan identified during reconnaissance efforts and the battalion combined arms rehearsal.			
<b>Execute</b>			
+ 8. The company executes movement to contact as listed below by:			
a. Gain and Maintain Contact. Gains and maintains enemy contact with the smallest element possible.			
(1) Maintains continuous contact with the enemy force once located by the lead element.			
(2) Destroys inferior enemy forces with a combination of fire and movement.			
(3) Depending on the commander's bypass criteria, fixes small enemy forces and leaves a small combat force to contain them until they can be destroyed.			
b. Disrupt.			
(1) Upon contact, the company overwhelms the enemy to prevent them from conducting a spoiling attack or organizing a coherent defense.			
(2) The security force does not allow the enemy to maneuver against the company.			
(3) The security force maneuvers quickly to identify gaps in the enemy's defense.			
(4) The security force updates the commander on the enemy's composition and disposition.			
(5) The company positions vehicles to facilitate rapid repositioning of the force and provides direct fire and casualty evacuation (CASEVAC) capabilities.			
c. Fix.			
(1) The security force prevents the enemy from maneuvering against the CAB main body.			
(2) The company provides the security force with appropriate levels of combat power to defeat or fix the enemy.			
(3) The company supports the security forces ability to fix through use of fire support assets or other available enabler assets.			
(4) The company executes movement to contact priorities as established in the OPORD.			

d. Maneuver. The commander chooses and executes an appropriate maneuver option based on the progress of the initial engagement with the security force.			
(1) The main body elements deploy rapidly to the vicinity of the contact if the commander initiates an attack.			
(2) The main body executes the assault before the enemy can deploy or reinforce their engaged forces.			
(3) Bypasses enemy forces that meet bypass criteria, fixes them, and conducts a battle handover with follow-on elements.			
(4) Directs an attack if the company commander assesses that the company can defeat the enemy.			
(5) Directs the company to conduct a support by fire to fix the enemy, allowing follow-on forces to maneuver decisively against the enemy.			
(6) Bypasses obstacles as necessary and reports their location and description to higher headquarters.			
(7) Maintains communication with internal and external elements.			
e. The company reports to higher headquarters as necessary to inform them of the developing situation.			
<b>Assess</b>			
* 9. The company commander conducts follow-through as listed below:			
a. Transitions to the appropriate task: Attack, defense, or bypass.			
b. If the situation allows, the main body resumes the movement to contact if the location of the enemy is unclear or the limit of advance has not been reached.			
c. Maintains contact and attempts to exploit success.			
10. Consolidate and reorganize. The company conducts consolidation and/or reorganization as follows:			
a. The company conducts consolidation:			
(1) Eliminates enemy resistance on the objective.			
(2) Establishes security by—			
(a) Securing key terrain.			
(b) Establishing observation post.			
(c) Conducting security patrols.			
(3) Establishes 360-degree security by securing areas that may be the source of enemy direct fires or enemy artillery observation.			
(4) Establishes additional security measures such as observation posts (OPs) and patrols.			
(5) Prepares for and assists the passage of follow-on forces (if required).			
(6) Improves security by conducting other necessary defensive actions, including engagement area (EA) development, direct fire planning, and battle position (BP) preparation.			
(7) Adjusts final protective fires (FPFs) and registers targets along likely mounted and dismounted avenues of approach.			
(8) Protects the obstacle reduction effort.			
(9) Prepares for enemy counterattacks.			
b. The company conducts reorganization in preparation for follow on missions.			
(1) Provides essential medical treatment and evacuates casualties as needed.			
(2) Cross-levels personnel and adjusts task organization, as required, to support the next phase or mission.			
(3) Conducts resupply operations including rearming and refueling.			
(4) Redistributes ammunition.			
(5) Conducts required maintenance.			
(6) Continues improvement of BPs as needed.			
11. Company reports status to higher HQs and continues operations as directed.			
+ 12. Live fire exercise requirements: The standards in TC 3-20.10 will be used to evaluate GO, NO-GO, N/A criteria when the mission-essential task (MET) is used to evaluate collective live fire proficiency. At a minimum—			
a. Execute decisions and communicate relevant information to platoons and higher headquarters.			
b. Execute breach or reduce an obstacle with live munitions.			
c. Integrate direct fires and indirect fires live munitions into the maneuver plan.			
d. Employ information collection assets (UAS, UGS, etc.) to detect and direct live fire engagement of an enemy target.			
e. Employ mission-oriented protective posture equipment during the mission.			
f. Conduct CASEVAC and/or MEDEVAC.			
g. Integrate non-organic assets as required.			

**TASK PERFORMANCE / EVALUATION SUMMARY BLOCK**

ITERATION	1	2	3	4	5	M	TOTAL
TOTAL PERFORMANCE MEASURES EVALUATED							
TOTAL PERFORMANCE MEASURES GO							
TRAINING STATUS GO/NO-GO							

**ITERATION:** 1 2 3 4 5 M

**COMMANDER/LEADER ASSESSMENT:** T P U

**Mission(s) supported:** None

**MOPP 4:** Sometimes

**MOPP 4 Statement:** None

**NVG:** Sometimes

**NVG Statement:** None

**Prerequisite Collective Task(s):** None

**Supporting Collective Task(s):**

Step Number	Task Number	Title	Proponent	Status
2.	71-CO-5100	Conduct Troop Leading Procedures for Companies	71 - Combined Arms (Collective)	Approved
8.	07-CO-3036	Integrate Indirect Fire Support (Company)	07 - Infantry (Collective)	Approved
8.	07-CO-9051	Conduct a Cordon and Search (Company)	07 - Infantry (Collective)	Approved
8.	07-CO-3000	Conduct Support by Fire - Company	07 - Infantry (Collective)	Approved
8.	07-CO-3027	Integrate Direct Fires - Company	07 - Infantry (Collective)	Approved
12.	07-CO-3036	Integrate Indirect Fire Support (Company)	07 - Infantry (Collective)	Approved
12.	07-CO-3027	Integrate Direct Fires - Company	07 - Infantry (Collective)	Approved

**OPFOR Task(s):** None

**Supporting Individual Task(s):**

Step Number	Task Number	Title	Proponent	Status
	071-326-5502	Issue a Fragmentary Order (FRAGORD)	071 - Infantry (Individual)	Approved
	071-326-5503	Issue a Warning Order	071 - Infantry (Individual)	Approved
	071-420-0010	Conduct a Mounted Assault by an M2 BFV Platoon	071 - Infantry (Individual)	Approved
	171-620-0008	Conduct a Movement to Contact at Company/Troop Level	171 - Armor (Individual)	Approved
	171-620-0055	Conduct Actions on Contact at Company/Troop Level	171 - Armor (Individual)	Approved

**Supporting Drill(s):**

Step Number	Drill Number	Drill Title	Drill Type	Proponent	Status
	07-3-D9501	React to Direct Fire Contact	Battle Drill	07 - Infantry (Collective)	Approved
	07-3-D9504	React to Indirect Fire	Battle Drill	07 - Infantry (Collective)	Approved
	17-3-D8004	React to Air Attack	Battle Drill	17 - Armor (Collective)	Approved

**Supported AUTL/UJTL Task(s):**

Task ID	Title
ART 7.1.1	Conduct a Movement to Contact



**TADSS**

TADSS ID	Title	Product Type	Quantity
71-02	Close Combat Tactical Trainer (CCTT) Fixed Site Installation	DVC	1
71-GFT-VBS2 OBS	Virtual Battle Space 2 Order of Battle System (OBS) Importer ( <a href="https://milgaming.army.mil/VBS2/">https://milgaming.army.mil/VBS2/</a> )	GFT	1
71-38/1	Close Combat Tactical Trainer (CCTT) Dismounted Soldier Training System (DSTS) Portable	DVC	1

**Equipment (LIN)**

LIN	Nomenclature	Qty
No equipment specified		

**Materiel Items (NSN)**

NSN	LIN	Title	Qty
6920-01-488-7693		Multiple Integrated Laser Engagement System 2000 (MILES 2000) M240 Machine Gun Kit	1
6920-01-498-2215		Simulator System, Firing, Laser	1
6920-01-488-7684		Multiple Integrated Laser Engagement System 2000 (MILES 2000) M249 Squad Automatic Weapon Kit	1

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. .

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. .

# Training and Evaluation Outline Report

**Status: Approved**

**04 Oct 2016**

**Effective Date: 20 Jan 2017**

**Task Number:** 17-CO-1094

**Task Title:** Conduct an Attack - Armor & Mechanized Infantry Company Team (ABCT)

**Distribution Restriction:** Distribution authorized to the DOD and DOD Contractors only for added control. This determination was made on 03OCT2016.

**Destruction Notice:** Destroy by any method that will prevent disclosure of contents or reconstruction of the document

**Foreign Disclosure: FD1** - This training product has been reviewed by the training developers in coordination with the MCoE G-2 foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

## Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 3-90.1	Armor and Mechanized Infantry Company Team	Yes	Yes
	ATP 3-90.5	THE COMBINED ARMS BATTALION	Yes	No

**Conditions:** The company is conducting operations in a live training environment independently or as part of a battalion or larger force and receives an operation order (OPORD) to conduct an attack. The company is conducting operations at night in a dynamic and complex operational environment (OE) against a hybrid threat. The company is located in an assembly area. Indirect fire and assets that allow air-ground operations are available. The company has communications with higher, adjacent, and subordinate elements. All necessary personnel and equipment are available. The company has guidance on the rules of engagement (ROE).

**LFX Condition:** If the attack is executed during a live fire exercise (LFX), refer to Training Circular (TC) 3-20.10 for additional training conditions (TBP).

**Dynamic Operational Environment:** Three or more operational and two or more mission variables change during the execution of the assessed task.

**Complex Operational Environment:** Changes to four or more operational variables impact the chosen friendly course of action (COA)/mission.

**Hybrid Threat:** Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements unified to achieve mutually benefiting effects. Some iterations of this task should be performed in MOPP 4.

**Standards:** The company conducts the attack in accordance with (IAW) ATP 3-90.1, the order, and the higher commander's guidance. The company employs the maximum possible combat power to gain and maintain contact, disrupt, fix, assault the objective, seize and secure terrain, and defeat or destroy enemy forces. The company complies with the ROE.

**LFX Standard:** The company conducts the attack during a LFX IAW TC 3-20.10 (TBP).

The rifle and armor company has at least 9 of 10 (85%) of the leaders and 80% of the Soldiers present at training against the company authorized strength. The company attains 90% on performance measures, 100% on critical performance measures, and 90% on leader performance measures achieving a T (fully trained).

**Note:** The rifle and armor company leaders are the commander, executive officer, first sergeant, platoon leader (x3), platoon sergeant (x3), and fire support officer.

**Live Fire Required:** LFX

**Objective Task Evaluation Criteria Matrix:**

Plan and Prepare		Execute					Assess		
Operational Environment	Training Environment (L/V/C)	Training/Authorized	% of Leaders Present at	% of Soldiers Present at	External Eval	% Performance Measures 'GO'	% Critical Performance Measures 'GO'	% Leader Performance Measures 'GO'	Task Assessment
CO & BN									
Dynamic and Complex (4+ OE Variables and Hybrid Threat)	Night	A live training environment is required for external evaluation of this task and to achieve a T or T- task assessment. The virtual training environment can be used during crawl and walk training events to enhance follow-on live training.	>=85%	>=80%	Yes	>=91%	All	>=90%	<b>T</b>
			75-84%			80-90%		80-89%	<b>T-</b>
Dynamic (Single Threat)	Day		65-74%	75-79%	No	65-79%	<All	<=79%	<b>P</b>
			60-64%	60-74%		51-64%			<b>P-</b>
Static (Single Threat)			<=59%	<=59%		<=50%			<b>U</b>

**Remarks:** None

**Notes:** None

**Safety Risk:** High

**Task Statements**

**Cue:** The company receives an operation order (OPORD) to conduct an attack.

DANGER

None

**WARNING**

None

**CAUTION**

None

## Performance Steps and Measures

**NOTE:** Assess task proficiency using the task evaluation criteria matrix.

**NOTE:** Asterisks (\*) indicate leader steps; plus signs (+) indicate critical steps.

STEP/MEASURE	GO	NO-GO	N/A
<b>Plan</b>			
1. The company gains and/or maintains situational understanding using available communications equipment, maps, intelligence summaries, situation reports (SITREPs), and other available information sources. Intelligence sources may include company intelligence support team (COIST), a human intelligence (HUMINT) team, a signal intelligence (SIGINT) team, and an imagery intelligence (IMINT) team to include unmanned aircraft systems (UASs) and unattended ground sensors (UGSs).			
+ 2. The company commander receives the mission to conduct an attack and begins execution of troop-leading procedures (TLP). (Refer to Task 71-CO-5100, Conduct Troop leading Procedures.)			
* 3. The company commander issues the warning order (WARNORD), which may include the following:			
a. General location of operation.			
b. Initial task organization.			
c. Initial operational timeline.			
d. Reconnaissance to initiate.			
e. Movement to initiate.			
f. Planning and preparation instructions (to include planning timeline).			
g. Information requirements.			
h. Commander's critical information requirements.			
+ 4. The company commander conducts mission analysis focusing on the directed mission, enemy, terrain and weather, troops and support available-time available and civil considerations (METT-TC) and develops a plan as follows:			
a. Plans and identifies decisive and shaping operations and/or main and supporting efforts by phase.			
b. Plans the employment of available weapons systems.			
c. Develops a scheme of maneuver that destroys or defeats enemy forces, seizes and secures terrain, or both based on the mission and emphasizes the capabilities of the formation.			
d. Determines organization of forces for the attack identifying the security force, main body, reserve, and breach force as applicable. The commanders may also consider the following elements: Breach, assault, and possibly a reserve.			
e. Conducts reconnaissance as follows:			
Note:			
(1) Integrates the company intelligence support team (COIST) to assist in the information collection plan.			
(2) Employs reconnaissance and security elements as early as possible to support the following information requirements to complete the plan:			
(a) Location and composition, disposition, and strength of enemy forces along a flank or at an area selected for attack.			
(b) Location and depth of enemy reserves.			
(c) Location of routes the enemy may use to counterattack or reinforce his defense.			
(d) Location of the enemy's antiarmor systems.			
(e) Location and extent of contaminated areas.			
(f) Location and extent of obstacles, possible breach sites, and enemy engagement areas (EAs).			
(g) Location of favorable routes to approach the objective, such as restrictive or severely restrictive terrain.			
(h) Identification of unobserved or covered and concealed avenue of approach to the objective.			
(i) Areas that the company can use for flanking fire and maneuver, such as for support-by-fire and attack-by-fire positions.			
(j) Suitability of planned friendly assault, support, artillery, and sustainment support positions.			
(k) Enemy deception operations.			
(3) Uses maps, imagery, Unmanned Aircraft Systems (UASs), and other available capabilities.			
f. Plans and coordinates with its higher headquarters for enabling assets (engineers, scouts, medics, mortars, sustainment, UAS, etc.) as required.			
g. Develops graphic control measures (GCM) such as: checkpoints, phase lines, probable lines of deployment, assault positions, direct fire control and fire support coordination measures for:			
(1) Movement to the objective.			
(2) Actions on the objective.			
(3) Direct fires throughout the operation.			
(4) Fire support throughout the operation.			
(5) Hasty defense.			
(6) Consolidation and reorganization.			

h. Incorporates enemy and terrain information into plans that may require the attacking unit to change its combat formation, direction of movement, or movement technique by taking the following actions:			
(1) Identify gaps in the enemy's defense.			
(2) Identify exposed or weak flanks.			
(3) Identify unobserved or weakly defended avenues of approach to the enemy's flank or rear.			
(4) Identify covered and concealed routes that allow the company to close on the enemy.			
(5) Identify weak or poorly positioned obstacles or fortifications in an enemy defense especially along a flank.			
i. Develops contingency plans for actions on contact with the enemy after crossing the LD.			
(1) Determining the location of the probable line of contact.			
(2) Identifying when the company must transition to maneuver.			
(3) Targeting and positioning of enemy heavy direct fire weapons.			
j. Plans fires as follows:			
(1) Plans to suppress enemy antitank or other weapon systems that inhibit movement.			
(2) Plans to fix or neutralize bypassed enemy elements.			
(3) Plans to weaken enemy defenses with preparatory fires prior to the assault.			
(4) Plans to obscure enemy observation or screen friendly maneuvers.			
(5) Plans to support breaching operations.			
(6) Plans to illuminate enemy positions.			
(7) Plans to echelon fires as required based on weapons systems available.			
k. Plans protection as listed below:			
(1) Allocates task-organized engineer forces to support breaching operations.			
(2) Integrates higher headquarters' obstacle intelligence (OBSTINTEL) requirements into the priority intelligence requirements (PIR) and the reconnaissance plan.			
(3) Confirms immediate unit-wide dissemination of OBSTINTEL.			
(4) Coordinates for and distributes terrain visualization products from the higher headquarters' terrain section's Digital Topographic Support System (DTSS) for planned breach sites, possible bypasses, defending enemy positions and/or key weapons, and friendly support by fire (SBF) positions.			
(5) Identifies required mobility tasks throughout the operation.			
(6) Employs organic CBRN detection kits to maximize protection across the company.			
(7) Disseminates information regarding any detected CBRN threats or hazards throughout the company immediately.			
(8) Develops deliberate decontamination plans based on the commander's priorities and vulnerability assessment.			
(9) Disseminates information regarding planned and active decontamination sites.			
Note: Scout platoon within the battalion is normally prepared to conduct CBRN reconnaissance tasks, but rifle platoons could be called upon to assist in CBRN reconnaissance efforts.			
l. Plans sustainment:			
(1) Plans for the increased consumption of Class III, V, and Class VIII supplies.			
(2) Plans for casualty evacuation.			
(3) Plans for increased equipment maintenance requirements.			
(4) Plans to position sustainment assets as far forward as possible.			
m. The company commander integrates risk management throughout TLPs.			
+ 5. The company commander issues an OPORD.			
* 6. The company commander conducts confirmation briefs with subordinates immediately after OPORD is issued to ensure subordinates understand commander's intent, specific tasks, concept of the operation, and relationship between their mission and the other units in the operation.			
<b>Prepare</b>			
* 7. The company commander and subordinate leaders prepare to conduct an attack. They take the following actions:			
a. Supervise subordinates and continue priorities of work.			
b. Conduct backbriefs with the BN commander or staff representative prior to the rehearsal (if necessary).			
c. Conduct pre-combat checks and inspections.			
d. Conduct rehearsals. Actions to consider during rehearsals include:			
(1) Actions on enemy contact.			
(2) Occupying support-by-fire positions.			
(3) Assaulting the objective.			
(4) Actions on the objective.			
(5) Fire support.			
(6) Maneuvering from the LD to the PLD, to include dismount points.			
(7) Hasty defense.			
(8) Consolidation and reorganization.			

e. Finalize coordination and support (adjacent units, passage of lines, combat enablers, etc.).			
f. Determine linkup requirements as necessary.			
g. Conduct protection activities.			
h. Position sustainment assets forward.			
i. Issue fragmentary orders (FRAGORDs) as necessary to address changes to the plan identified during reconnaissance efforts and the battalion combined arms rehearsal.			
j. Position platoons and/or sections to conduct the attack.			
<b>Execute</b>			
+ 8. The company executes the attack as follows:			
a. The company moves from the assembly area to the LD.			
b. The company commander conducts a leader's reconnaissance to:			
Note: The company may combine this reconnaissance with reconnaissance efforts in the planning phase to mitigate hindering the tempo of the operation.			
(1) Pinpoint the objective.			
(2) Identify security at the objective.			
(3) Select assault and support-by-fire positions.			
(4) Locate any obstacles that may affect the plan.			
(5) Determine whether to conduct the assault mounted or dismounted, if applicable.			
(6) Determine where the enemy is most vulnerable to attack and where the support element can best place fires on the objective.			
(7) Leave a reconnaissance and security team to observe the objective.			
(8) Return to the company position.			
c. Gain and Maintain Contact. The company maneuvers from the LD to the PLD. (Note: The PLD and assault positions can be co-located.) The purpose of this movement is to gain and maintain contact with enemy forces by:			
(1) Using appropriate movement techniques based on METT-TC.			
(2) Incorporating fires to facilitate movement.			
(3) Using avenues of approach that avoid strong enemy defenses.			
(4) Using cover and concealment.			
(5) Using indirect fires in support of movement and maneuver.			
(6) Controlling supporting fires to prevent fratricide.			
(7) Placing forces on the flank and rear of the defending enemy.			
(8) Continuing tactical movements after moving forward of the assault position.			
d. Disrupt and fix. The company conducts actions (described below) at the PLD or assault position to disrupt and fix the enemy.			
(1) The company task organizes into one or more assault and support formations once it reaches the PLD if not previously completed at the LD.			
(2) The Infantry squads dismount before, on, or beyond the objective based on the commander's plan to achieve success.			
(3) The commander synchronizes the occupation of the support-by-fire positions with the maneuver of the supported attacking unit to limit the vulnerability of the forces occupying these positions.			
Note: The unit only halts in the assault position to ensure synchronization of all friendly forces.			
(4) All forces supporting the assault force are emplaced before the assault force crosses the PLD.			
(5) The support force employs direct and properly echeloned indirect fires against the selected enemy positions to destroy, suppress, obscure, or neutralize enemy weapons to cover the assault force's movement.			
(6) The support force maintains visual observation of suppressive fires just forward of the breach and assault forces.			
(7) The support force shifts fires for preparation of the breach force and follow-on assault forces.			
(8) The breach force reduces, proofs, and marks the required number of lanes through the enemy's tactical obstacles to support the maneuver of the assault force.			
(9) The assault force closely follows supporting fires to gain ground that offers positional advantage.			
e. Maneuver. The company commander maneuvers his forces to gain positional advantage so he can seize, retain, and exploit the initiative. The company commander takes the following actions:			
(1) Employs all direct and indirect fires to suppress and destroy the enemy.			
(2) Maintains momentum throughout actions on the objective.			
(3) Synchronizes fires to isolate the objective so the enemy cannot reinforce or conduct a counterattack.			
(4) Ensures the bypassed enemy cannot place effective fires on the company elements.			
(5) Synchronizes fires in front of the assaulting force to maintain momentum.			
(6) Positions or repositions weapons systems as necessary to maximize suppressive fire effectiveness to support actions of the assault element as it moves across the objective.			
(7) Establishes the limit of advance.			





**NVG Statement:** None

**Prerequisite Collective Task(s):** None

**Supporting Collective Task(s):**

Step Number	Task Number	Title	Proponent	Status
2.	71-CO-5100	Conduct Troop Leading Procedures for Companies	71 - Combined Arms (Collective)	Approved
8.	07-CO-3036	Integrate Indirect Fire Support (Company)	07 - Infantry (Collective)	Approved
8.	07-CO-3000	Conduct Support by Fire - Company	07 - Infantry (Collective)	Approved
8.	07-CO-1256	Conduct an Attack by Fire - Company	07 - Infantry (Collective)	Approved
8.	07-CO-3027	Integrate Direct Fires - Company	07 - Infantry (Collective)	Approved
10.	07-2-5027	Conduct Consolidation and Reorganization (Platoon-Company)	07 - Infantry (Collective)	Approved
13.	07-CO-3027	Integrate Direct Fires - Company	07 - Infantry (Collective)	Approved
13.	07-CO-3036	Integrate Indirect Fire Support (Company)	07 - Infantry (Collective)	Approved

**OPFOR Task(s):**

Task Number	Title	Status
71-CO-8507	OPFOR Execute Defense of a Complex Battle Position	Approved

**Supporting Individual Task(s):**

Step Number	Task Number	Title	Proponent	Status
	071-326-5502	Issue a Fragmentary Order (FRAGORD)	071 - Infantry (Individual)	Approved
	071-326-5503	Issue a Warning Order	071 - Infantry (Individual)	Approved
	071-326-5630	Conduct Movement Techniques by a Platoon	071 - Infantry (Individual)	Approved
	071-420-0026	Conduct a Breach of a Wire Obstacle	071 - Infantry (Individual)	Approved
	171-133-5317	Plan Unit Movement at Company Level	171 - Armor (Individual)	Approved
	171-19K-3232	Direct Main Gun Engagements on an M1-Series Tank	171 - Armor (Individual)	Approved
	171-610-0001	Perform a Map Reconnaissance	171 - Armor (Individual)	Approved
	171-COM-4080	Send a Spot Report (SPOTREP)	171 - Armor (Individual)	Approved

**Supporting Drill(s):**

Step Number	Drill Number	Drill Title	Drill Type	Proponent	Status
	07-3-D9501	React to Direct Fire Contact	Battle Drill	07 - Infantry (Collective)	Approved
	07-3-D9504	React to Indirect Fire	Battle Drill	07 - Infantry (Collective)	Approved
	17-3-D8004	React to Air Attack	Battle Drill	17 - Armor (Collective)	Approved

**Supported AUTL/UJTL Task(s):**

Task ID	Title
ART 7.1.2	Conduct an Attack

**TADSS**

TADSS ID	Title	Product Type	Quantity
DVC-VBS2	VIRTUAL BATTLESPACE 2 (Local TADSS – Not in TSMATS/PAM 25-30)	SIM	1
07-129	Engagement Skills Trainer II (EST II)	SIM	1
71-02	Close Combat Tactical Trainer (CCTT) Fixed Site Installation	DVC	1

### Equipment (LIN)

LIN	Nomenclature	Qty
No equipment specified		

### Materiel Items (NSN)

NSN	LIN	Title	Qty
6920-01-488-7693		Multiple Integrated Laser Engagement System 2000 (MILES 2000) M240 Machine Gun Kit	1
6920-01-498-2215		Simulator System, Firing, Laser	1
6920-01-488-7684		Multiple Integrated Laser Engagement System 2000 (MILES 2000) M249 Squad Automatic Weapon Kit	1

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**Safety:** In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. .

# Training and Evaluation Outline Report

**Status: Approved**

**04 Oct 2016**

**Effective Date: 20 Jan 2017**

**Task Number:** 17-CO-1030

**Task Title:** Conduct an Area Defense - Armor & Mechanized Infantry Company Team(ABCT)

**Distribution Restriction:** Distribution authorized to the DOD and DOD Contractors only for added control.This determination was made on 04Oct2016.

**Destruction Notice:** Destroy by any method that will prevent disclosure of contents or reconstruction of the document

**Foreign Disclosure: FD1 -** This training product has been reviewed by the training developers in coordination with the MCoE G-2 foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

## Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ATP 3-90.1	Armor and Mechanized Infantry Company Team	Yes	Yes
	ATP 3-90.5	THE COMBINED ARMS BATTALION	Yes	No

**Conditions:** The company team is conducting operations in a live training environment as part of a battalion (BN) or larger force and receives an operations order (OPORD) or fragmentary order (FRAGORD) to conduct an area defense at the location and time specified. The order includes an estimated enemy composition, enemy avenues of approach, a battle handover line, phase lines, unit boundaries, locations of adjacent units, and all graphics and control measures necessary to conduct an area defense. The company is conducting operations at night in a dynamic and complex operational environment (OE) against a hybrid threat. The defense may be conducted forward or in-depth utilizing one of these forms of defense: Defense of a linear obstacle, perimeter defense or reverse-slope defense. Time is available for a deliberate occupation of defensive positions. All necessary personnel and equipment are available. The company has communications with higher, adjacent, and subordinate elements. The company has guidance on the rules of engagement (ROE).

**LFX Condition:** If the area defense is executed during a live fire exercise (LFX), refer to Training Circular (TC) 3-20.10 for additional training conditions (TBP).

**Dynamic Operational Environment:** Three or more operational and two or more mission variables change during the execution of the assessed task.

**Complex Operational Environment:** Changes to four or more operational variables impact the chosen friendly course of action (COA)/mission.

**Hybrid Threat:** Diverse and dynamic combination of regular forces, irregular forces, and/or criminal elements unified to achieve mutually benefiting effects. Some iterations of this task should be performed in MOPP 4.

**Standards:** The company team conducts an area defense in accordance with (IAW) ATP 3-90.1, the order, and/or the higher commander's guidance. The company occupies designated defensive positions, covers a designated portion of the engagement area (EA) or sector of fire, and maintains security. The company defeat an enemy attacks, gain time, economize forces, and concentrates on denying enemy forces access to key terrain. The company destroys and defeats the enemy force within the assigned engagement area. The company complies with the ROE.

**LFX Standard:** The company conducts the area defense during a LFX IAW TC 3-20.10 (TBP).

The rifle company has 9 of 10 (85%) and/or armor company has 9 of 10 (85%) of the leaders and 80% of the Soldiers present at training against the company's authorized strength. The company attains 90% on performance measures, 100% on critical performance measures, and 90% on leader performance measures achieving a T (fully trained).

**Note:** Rifle company leaders are the commander, XO, 1SG, platoon leader (x3), PSG (x3), fire support officer.

**Note:** Armor company leaders are the commander, XO, 1SG, platoon leader (x3), PSG (x3), fire support officer.

**Live Fire Required:** LFX

**Objective Task Evaluation Criteria Matrix:**

Plan and Prepare		Execute					Assess		
Operational Environment	Training Environment (LW/C)	Training/Authorized	% of Leaders Present at	% of Soldiers Present at	External Eval	% Performance Measures 'GO'	% Critical Performance Measures 'GO'	% Leader Performance Measures 'GO'	Task Assessment
CO & BN									
Dynamic and Complex (4+ OE Variables and Hybrid Threat)	Night	A live training environment is required for external evaluation of this task and to achieve a T or T- task assessment. The virtual training environment can be used during crawl and walk training events to enhance follow-on live training.	>=85%	>=80%	Yes	>=91%	All	>=90%	<b>T</b>
			75-84%			80-90%		80-89%	<b>T-</b>
Dynamic (Single Threat)	Day		65-74%	75-79%	No	65-79%	<All	<=79%	<b>P</b>
			60-64%	60-74%		51-64%			<b>P-</b>
Static (Single Threat)			<=59%	<=59%		<=50%			<b>U</b>

**Remarks:** None

**Notes:** None

**Safety Risk:** Medium

**Task Statements**

**Cue:** The company receives an operations order (OPORD) to conduct an area defense at the location and time specified.

DANGER

None

**WARNING**

None

**CAUTION**

None

## Performance Steps and Measures

**NOTE:** Assess task proficiency using the task evaluation criteria matrix.

**NOTE:** Asterisks (\*) indicate leader steps; plus signs (+) indicate critical steps.

STEP/MEASURE	GO	NO-GO	N/A
<b>Plan</b>			
1. The company gains and/or maintains situational understanding using available communications equipment, maps, intelligence summaries, situation reports (SITREPs), and other available intelligence sources. Intelligence sources include company intelligence support teams (COISTs), human intelligence (HUMINT), signal intelligence (SIGINT), and imagery intelligence (IMINT) teams to include unmanned aircraft systems (UASs) and unattended ground sensors (UGSs).			
+ 2. The company commander receives the mission to conduct an area defense and begins execution of troop leading procedures (TLP). (Refer to Task 71-CO-5100, Conduct Troop-leading Procedures.)			
* 3. The company commander issues the warning order (WARNORD), which may include the following:			
a. General location of the operation.			
b. Initial task organization.			
c. Initial operational timeline including:			
(1) The no later than defend time.			
(2) The time of the OPORD.			
d. Reconnaissance to initiate.			
e. Movement to initiate.			
f. Planning and preparation instructions including:			
(1) Planning timeline.			
(2) Initial priorities of work.			
g. Information requirements.			
h. Commander's critical information requirements.			
+ 4. The company commander conducts mission analysis focusing on the directed mission, enemy, terrain and weather, troops and support available-time available and civil considerations (METT-TC) and develops a plan as follows:			
a. Determines organization of forces as follows:			
(1) Plans and coordinates with the higher headquarters for enabling assets (engineers, scouts, medics, mortars, sustainment, UASs, etc.) as required.			
Note: UASs can provide operational capability in the following areas: (1) Remote reconnaissance and security. (2) Augment force protection. (3) Target acquisition. (4) Battle damage assessment.			
(2) Employs a combination of reconnaissance, security, main battle area (MBA), reserve, and sustainment elements.			
(3) Identifies the main effort and supporting effort(s) for all phases of the operation.			
b. Conducts mission analysis as follows:			
(1) Utilizes and disseminates intelligence products.			
(2) Identifies the most likely enemy avenues of approach.			
(3) Identifies the enemy scheme of maneuver.			
(4) Identifies existing and reinforcing obstacles in the area of operations.			
(5) Determines information requirements.			
c. Plans and conducts reconnaissance as follows:			
(1) Develops a reconnaissance plan that supports answering the information requirements.			
(2) Utilizes all assigned or available reconnaissance assets.			
(3) Integrates the company intelligence support team (COIST).			
(4) Conducts necessary reconnaissance and security operations as early as possible to support the information collection plan.			
(5) Identifies tentative primary, alternate, and supplemental defensive positions.			
d. Plans operations as follows:			
(1) Receives information provided by reconnaissance and refines the plan as necessary.			
(2) Decides on a form of defensive maneuver for an area defense (defense of a linear obstacle, perimeter defense, and reverse-slope defense).			
(3) Refines mission analysis utilizing maps, imagery, air-ground operations assets, and other available capabilities.			
(4) Develops the scheme of movement and maneuver as follows:			
(a) Plans EAs by determining where to kill the enemy.			
(b) Identifies primary, alternate, supplementary, and subsequent fighting positions (as necessary).			
(c) Plans the use of direct fires.			
(d) Develops engagement priorities for each weapon system.			
(e) Distributes fires into each EA by selecting the appropriate fire control technique(s).			

(f) Plans the routes to the selected battle positions.			
(g) Plans the movement of all assigned sustainment assets.			
(h) Plans for rehearsal of actions in the EA.			
(i) Plans for the use of enablers as necessary.			
(j) Develops disengagement criteria.			
(k) Develops contingency plans.			
(5) Develops the fire support plan that nests with higher headquarters' fire support plan:			
(a) Determines the task, purpose, and effect of fires.			
(b) Plans the use of echeloned indirect fires that best achieves the desired effects.			
(c) Plans the use of air-ground operation assets.			
(d) Ensures target locations cover existing and emplaced obstacles that support the defense's scheme of movement and maneuver.			
(e) Develops an observation plan that incorporates observer redundancy.			
(f) Finalizes target locations and attack guidance.			
(g) Requests critical friendly zone(s) (CFZ), restricted fire area(s) (RFA), and no-fire area(s) (NFA) as necessary to protect friendly units.			
(6) Develops graphic control measures (GCM) that provide the flexibility needed to respond to changes in the situation and allow the defending commander to rapidly concentrate combat power at the decisive point, including for:			
(a) Movement to the decisive point.			
(b) Actions at the decisive point.			
(c) Direct fires throughout the operation.			
(d) Fire support throughout the operation.			
(e) Enabler support throughout the operation.			
(7) Develops the protection plan as follows:			
(a) Plans the use of obstacles that supports the maneuver plan and allows a counterattack if planned.			
(b) Plans for countermobility efforts that constrain the enemy or force the enemy to maneuver into positions of vulnerability.			
(c) Plans for mobility and countermobility efforts that support withdrawing forces, the reserve, and the repositioning of MBA forces.			
(d) Finalizes obstacles and their locations.			
(e) Plans for the construction of survivability positions with defined priorities of support.			
(f) Plans CBRN detection, avoidance, and protection.			
(8) Develops the sustainment plan as follows:			
(a) Develops the casualty evacuation plan.			
(b) Develops the maintenance plan.			
(c) Reports logistics status (LOGSTAT) IAW the unit standard operating procedure (SOP).			
(d) Develops the resupply plan for routine and emergency situations.			
(e) Includes pre-positioned classes of supply as necessary.			
(9) The company commander integrates risk management throughout TLPs.			
+ 5. The company commander issues the OPORD.			
* 6. The company commander conducts confirmation briefs with subordinates immediately after the OPORD is issued to ensure subordinates understand the commander's intent, specific tasks, concept of the operation, and the relationship between their mission and the other units' missions in the operation.			
<b>Prepare</b>			
* 7. Company leaders prepare to conduct an area defense and take the following actions:			
a. Supervise subordinates and continues priorities of work.			
b. Conducts pre-combat checks and inspections.			
c. Conducts rehearsals. Actions to consider during rehearsals include:			
(1) Actions on enemy contact.			
(2) Actions at the decisive point.			
(3) Fire support.			
(4) Transition to a counterattack if planned.			
(5) Rearward passage of lines if necessary.			
(6) Forward passage of lines if necessary.			
(7) Sustainment.			
d. Finalize defense coordination with adjacent and supporting units, and higher headquarters as required that considers:			
(1) Locations of OPs and patrols.			
(2) Communication information.			
(3) Unit positions, including locations of mission command systems.			
(4) Routes to be used during occupation and repositioning.			

(5) Interlocking fires (to ensure that direct fire responsibility is clearly defined and dead space is covered).			
(6) Target reference points.			
(7) Fire support information.			
(8) Air defense considerations if applicable.			
(9) Sustainment considerations.			
(10) Rearward passage of lines by retrograding friendly unit if planned.			
(11) Forward passage of lines by advancing friendly unit if planned.			
e. Establish rest plan.			
f. Issues fragmentary orders (FRAGORDs) as necessary to address changes to the plan identified during the battalion combined arms rehearsal.			
8. Establish security, which includes the following:			
a. Tactical movement to the area of operations as listed below:			
(1) Uses covered and concealed routes.			
(2) Enforces camouflage, noise, light, and litter discipline.			
(3) Maintains security during movement.			
b. Posts and maintains security throughout the operation.			
c. Leader's reconnaissance includes the following:			
(1) Company leaders and reconnaissance elements conduct the leader's reconnaissance.			
(2) Pinpoints the defensive positions, positions security elements, and ensures the positions are free of enemy, mines, and obstacle.			
(3) Confirms the EA.			
(4) Drives and walks, as necessary, the EA to confirm the selected positions and establish target reference points (TRPs).			
(5) Refines battle position selection, as necessary, to achieve the desired effect in corresponding engagement areas.			
(6) Designate hide positions for each battle position.			
(7) Confirms the location(s) of obstacles.			
(8) Assigns the element's area of operation (AO) and OP locations. (OPs should have wire communications, if available.)			
(9) Designates the location for the command post (CP), early warning systems, and automatic alarm systems (if assigned).			
(10) Identifies dead space between elements and determines how best to cover the dead space.			
(11) Identifies weapon system positions so the required number of weapons, vehicles, and elements can effectively cover each EA and avenues of approach.			
(12) Selects covered and concealed routes between primary, alternate, and supplementary defensive positions.			
(13) Returns to the main body and leaves a surveillance team to observe the EA and defensive positions, if required.			
(14) The company commander updates and disseminates the plan as necessary.			
d. Prevent enemy observation of defensive positions within capabilities.			
e. Prevent the enemy from delivering direct fires into the company's defenses.			
f. Provide early warning of the enemy's approach.			
g. Clear possible enemy OP locations.			
h. Counter noncombatant security threat (with higher command approval) as follows:			
(1) Prevent use of cameras and similar devices.			
(2) Prevent unauthorized personnel from moving in the company's area of operations.			
9. Occupation of positions: The company occupies and improves defensive positions. They take the following actions:			
a. Position forces and develop EA, by taking the following actions:			
(1) Identify all likely enemy avenues of approach by:			
(a) Moving to a vantage point to view defensive position from enemy's perspective if possible.			
(b) Identifying all likely enemy avenues of approach and key defensive terrain.			
(c) Evaluating any lateral routes.			
(2) Determine the likely enemy concept of the operation, which may include the following:			
(a) Determine how the enemy will attack.			
(b) Consider how the enemy will employ reconnaissance assets.			
(c) Consider where and when the enemy will change formations or establish support by fire positions.			
(d) Consider where and when the enemy will conduct a breach and/or assault.			
(e) Consider where and when the enemy will commit follow-on forces.			
(f) Consider effects of the enemy's combat multipliers.			
(g) Consider the enemy's rate of movement.			
(3) Determine where to kill the enemy and the boundaries of the EA.			



(4) The company integrates directed, situational, and reserve obstacles into the defense, and updates and disseminates obstacle overlay(s) IAW the unit SOP. The unit takes the following actions:			
(a) Identifies any directed obstacles the company has been tasked to emplace by higher HQ.			
(b) Specifies obstacle locations with defined task and purpose for each.			
(c) Provides security during emplacement.			
(d) Directs obstacle emplacement.			
(e) Identifies locations for massing direct and indirect fires.			
(f) Identifies and marks the necessary control measures on the ground.			
(g) Identifies tentative locations of key weapon systems providing obstacle coverage.			
(h) Sites obstacle group(s), which take the following actions:			
_1_ Ensures obstacles are covered by direct and indirect fires.			
_2_ Identifies dead space.			
_3_ Marks general limits and orientation of obstacle groups.			
_4_ Sites and reports obstacles by taking the following actions:			
_a_ Reports completion of obstacle emplacement, integration, and turnover or transfer.			
_b_ Reports grid locations of the obstacle group and fire control measures.			
(5) Emplace weapon systems and prepare fighting positions.			
(6) Plan and integrate indirect fires.			
(7) Rehearse the execution of operations in the EA as follows:			
(a) Designate an element to move through the EA along the enemy avenue of approach.			
(b) Ensure all weapon systems and direct fire control measures are synchronized to enable effective engagement IAW the scheme of maneuver.			
(c) Execute rehearsal during daylight and limited visibility.			
(d) Designate an element to obscure any friendly unit tracks through the EA to deceive the enemy to the location of the defense.			
b. Conduct pre-combat checks and inspections. Take the following actions:			
(1) Inspect and monitor the progress of defensive preparations to ensure they meet the higher commander's timeline.			
(2) Seek to identify shortfalls early enough to shift resources with the higher headquarters' approval.			
(3) Pay special attention to the array of forces, fires, and obstacles along flanks, seams between subordinate elements, or other areas that the enemy will likely try to penetrate.			
(4) Make necessary adjustments to subordinates' areas of operation, engagement areas, battle positions, and other defensive control measures based on conditions the occupying units encounter as they begin preparing the defense.			
c. Refine the task organization of the company to accomplish the mission.			
d. Initiates occupation of defensive positions. The company takes the following actions:			
(1) Position forces and enter defensive positions from the flank or rear.			
(2) Ensures subordinate unit sectors of fire overlap and connect with adjacent units.			
(3) Designate defensive control measures and disseminates the information to subordinate leaders. The company takes the following actions:			
(a) Identify tentative locations for each elements primary defensive position.			
(b) Identify TRPs, EAs, and direct fire responsibilities for primary positions.			
(c) Identify tentative locations for the subordinate unit's alternate and supplementary defensive position.			
(d) Identify TRPs, EAs, and direct fire responsibilities for alternate and supplementary defensive position.			
(4) Adjust positions as necessary to cover TRPs, EAs, and/or sectors of fire. The company takes the following actions:			
(a) Verifies direct fire plans and proof positions.			
(b) Adjusts primary, alternate, and supplementary positions as required.			
(c) Selects covered and concealed displacement routes between primary, alternate, and supplementary positions as necessary.			
(5) Complete occupation of the defensive positions as follows:			
(a) Implement changes based on guidance from higher HQ.			
(b) Direct subordinates to continue improvement of the defensive position with additional steps of a deliberate occupation as time permits.			
e. Monitor company defense preparations, which include:			
(1) Final coordination for battle handover and passage of lines.			
(2) Positioning of situational obstacle employment systems.			
(3) Evacuation of unused Class IV and V to prevent capture.			
(4) Withdrawal of engineer forces from the company area.			
(5) Linkup of supporting/supported combat forces.			
(6) Final positioning or repositioning of forces.			

(7) Execution of obstacles.			
(8) Registration of indirect fire targets, IAW higher headquarters' fires support plan.			
(9) Provide information for updating the common operational picture (COP) including the following information:			
(a) Sector sketches and annotated graphic control measures.			
(b) Fire support plans in depth, anticipating the enemy scheme of maneuver and shaping the battlefield.			
(c) Emplace observers in vantage points within the defensive area that affords a clear view of the area of operation (AO).			
(d) Establish company fire support coordination measures (FSCMs) that correspond to METT TC and higher headquarters' intent and order.			
(e) Alternate and supplementary defensive positions.			
(f) Designate covered and concealed routes between alternate and successive defensive positions.			
(g) Designate, mark, and record key locations in the defensive positions and in the EA.			
f. Adjusts readiness condition (REDCON) status IAW mission variables, the OPORD or FRAGORD, unit SOP, and the tactical situation.			
10. The company reports occupation of defensive positions to higher HQ. They take the following actions:			
a. Submit the company obstacle location(s) and fires plan refinements.			
b. Update the COP as appropriate or directed and provide current SU to provide timely and accurate information.			
c. Incorporate subordinate level input and updated information from reconnaissance and intelligence assets and issue FRAGORDs as necessary.			
<b>Execute</b>			
+ 11. The company executes the area defense.			
a. Gain and maintain contact. The company seeks to gain and maintain contact with enemy forces with the appropriate asset. This may be accomplished through a higher headquarters using an asset(s) controlled by higher headquarters. The company:			
(1) Gains and maintains contact with assigned assets as practical and determined by the area of operations, area of interest, and higher headquarters' guidance.			
(2) Conducts a reconnaissance handover with reconnaissance assets if appropriate.			
(3) Conducts a battle handover with forward assets if appropriate.			
b. Disrupt and fix. The company conducts actions from positions that maximize protection as appropriate to disrupt and fix the enemy as follows:			
(1) Avoids exposure to the enemy unless necessary to accomplish assigned tasks.			
(2) Employs indirect fires and air-ground operations assets to disrupt the enemy's movements and maneuvers, and to channel the enemy into the company's EA.			
(3) Incorporates obscuration effects, as necessary, to support the company's maneuver and engagement plans.			
(4) Fixes the enemy to control movement and constrain courses of action by initiating fires on command or when the engagement criteria is met.			
c. Maneuver. The company executes its defensive operation to defeat the enemy, gain time, economize forces, control key terrain or enable a counterattack. The company takes the following actions:			
(1) Initiates fires based on the guidance provided by the commander.			
(2) Engages targets with fires based on the attack guidance matrix.			
(3) Avoids target overkill where possible.			
(4) Maneuvers to alternate or supplementary battle positions based on the enemy's actions and the commander's guidance.			
(5) Reports contact with enemy forces to higher headquarters and adjacent units.			
(6) Employs the reserve if necessary.			
(7) Displaces to subsequent battle positions IAW the commander's displacement criteria.			
(8) Updates higher headquarters as necessary.			
d. Follow through. The company defeats the enemy by either its execution of the defense or by counterattack. The company takes the following actions:			
(1) Retains assigned terrain.			
(2) Causes the enemy to sustain losses that prevents them from achieving any decisive objectives.			
(3) Transitions to a counterattack if directed as follows:			
(a) Employs the reserve to conduct the counterattack.			
(b) Synchronizes fires in front of the assaulting force to maintain momentum.			
(c) Employs all direct and indirect fires to suppress and destroy the enemy.			
(d) Establishes the limit of advance.			
(4) Withdrawals, if necessary, after considering the current situation in adjacent defensive areas and with the approval of the commander that ordered the defense.			
<b>Assess</b>			

12. After the culmination of the defense, the company commander reports status to higher headquarters and prepares to execute as directed below:			
a. Maintain contact and attempts to exploit success as follows:			
(1) Executes a counterattack.			
(2) Uses indirect and direct fires to continue to suppress enemy locations.			
(3) Facilitates forward passage of follow-on forces to execute an attack.			
b. Transitions to consolidating gains and preparing for future operations.			
13. Consolidate and reorganize: The company conducts consolidation and reorganization, as necessary, and prepares for any on-order missions assigned by higher headquarters. The company takes the following actions:			
a. The company conducts consolidation, as follows:			
(1) Eliminates local enemy resistance.			
(2) Re-establishes 360-degree security.			
(3) Protects obstacle reduction efforts.			
(4) Improves security by conducting other defensive actions, including improving defensive positions and conducting patrols as necessary.			
(5) Prepares for and assists the passage of follow-on forces (if required).			
(6) Secures enemy prisoners of war and detainees.			
(7) Prepare for counterattack.			
b. The company conducts reorganization, including:			
(1) Providing essential medical treatment and evacuating casualties as needed.			
(2) Treating and evacuating wounded enemy prisoners of war.			
(3) Processing enemy prisoners of war.			
(4) Cross-leveling personnel and adjusting task organization as required to support the next phase or mission.			
(5) Conducting resupply operations.			
(6) Redistributing ammunition.			
(7) Conducting required maintenance.			
(8) Continuing improvement of battle positions (BPs) as needed.			
14. The company reports status to higher HQ and continues operations as directed.			
+ 15. Live fire exercise requirements: The standards in TC 3-20.10 will be used to evaluate GO, NO-GO, N/A criteria when the mission-essential task (MET) is used to evaluate collective live fire proficiency. At a minimum—			
a. Execute decisions and communicate relevant information to platoons and higher headquarters.			
b. Integrate survivability positions. (Manmade or nature positions based on range capabilities.)			
c. Integrate obstacles, direct fires, and indirect fires live munitions into engagement areas.			
d. Employ information collection assets (UAS, UGS, etc...) to detect and direct live fire engagement of an enemy target.			
e. Employ mission-oriented protective posture equipment during the mission.			
f. Conduct CASEVAC and/or MEDEVAC.			
g. Integrate non-organic assets as required.			

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL PERFORMANCE MEASURES EVALUATED							
TOTAL PERFORMANCE MEASURES GO							
TRAINING STATUS GO/NO-GO							

**ITERATION:** 1 2 3 4 5 M

**COMMANDER/LEADER ASSESSMENT:** T P U

**Mission(s) supported:** None

**MOPP 4:** Sometimes

**MOPP 4 Statement:** None

**NVG:** Sometimes

**NVG Statement:** None

**Prerequisite Collective Task(s):** None

**Supporting Collective Task(s):**

Step Number	Task Number	Title	Proponent	Status
2.	71-CO-5100	Conduct Troop Leading Procedures for Companies	71 - Combined Arms (Collective)	Approved
11.	07-CO-6045	Employ Deception Techniques (Company)	07 - Infantry (Collective)	Approved
11.	07-CO-3036	Integrate Indirect Fire Support (Company)	07 - Infantry (Collective)	Approved
11.	07-CO-3027	Integrate Direct Fires - Company	07 - Infantry (Collective)	Approved
11.	07-CO-1396	Employ Obstacles (Company)	07 - Infantry (Collective)	Approved
15.	07-CO-3036	Integrate Indirect Fire Support (Company)	07 - Infantry (Collective)	Approved
15.	07-CO-3027	Integrate Direct Fires - Company	07 - Infantry (Collective)	Approved

**OPFOR Task(s):**

Task Number	Title	Status
71-CO-8504	OPFOR Execute a Reconnaissance Attack	Approved

**Supporting Individual Task(s):**

Step Number	Task Number	Title	Proponent	Status
	171-123-1000	Direct Occupation of a Vehicle Fighting Position	171 - Armor (Individual)	Approved
	171-19K-2209	Engage Targets with the M240 Coaxial Machine Gun from the Gunner's Station on an M1A1 Tank	171 - Armor (Individual)	Approved
	171-19K-3206	Engage Targets With a Caliber .50 M2 Heavy Barrel (HB) Machine Gun on an M1A1 Tank	171 - Armor (Individual)	Approved
	171-19K-3216	Engage Targets with the Main Gun from the Commander's Station on an M1A1 Tank	171 - Armor (Individual)	Approved
	171-COM-4080	Send a Spot Report (SPOTREP)	171 - Armor (Individual)	Approved

**Supporting Drill(s):**

Step Number	Drill Number	Drill Title	Drill Type	Proponent	Status
	07-3-D9501	React to Direct Fire Contact	Battle Drill	07 - Infantry (Collective)	Approved
	07-3-D9504	React to Indirect Fire	Battle Drill	07 - Infantry (Collective)	Approved
	17-3-D8004	React to Air Attack	Battle Drill	17 - Armor (Collective)	Approved

**Supported AUTL/UJTL Task(s):**

Task ID	Title
ART 7.2.2	Conduct an Area Defense

**TADSS**

TADSS ID	Title	Product Type	Quantity
71-02	Close Combat Tactical Trainer (CCTT) Fixed Site Installation	DVC	1
71-GFT-VBS2	Virtual Battle Space (VBS2) ( <a href="https://milgaming.army.mil/VBS2/">https://milgaming.army.mil/VBS2/</a> )	GFT	1

**Equipment (LIN)**

LIN	Nomenclature	Qty
No equipment specified		

## Materiel Items (NSN)

NSN	LIN	Title	Qty
No materiel items specified			

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. .

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. .

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**Task Number:** 05-3-3013

**Task Title:** Construct Vehicle Fighting Positions

**Task Type:** Collective

**Proponent:** ENGINEERS

**Task Data**

**Conditions:** The unit is supporting defensive and survivability operations and is directed to construct vehicle fighting positions. Construction plans, specifications and all required construction materials are available. All organic tools, equipment and personnel are available. Work site security is provided by the supported element.

**Standards:** The unit constructs vehicle fighting positions, providing protection from direct and indirect fire without restricting the operation capability of the area of operations (AO) in accordance with plans and specifications, commander's intent, and within the time specified in the directive.

**Safety Notes:** In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. .

**Environment:** US military forces operate under increasingly diverse environmental requirements, both domestic and foreign, particularly during stability operations and support operations. Heightened environmental concern has led all federal agencies, including the armed services, to consider the environmental consequences of proposed actions. Compliance with environmental laws and regulations is now a necessary cost of doing business. The military must comply with all environmental laws and regulations that apply to installations or theaters of operation.

**PERFORMANCE STEPS**

\* 1. The unit leader coordinates with the maneuver commander to determine the type and location of the positions.

- 2. The unit uses the established planning factors to estimate the completion time based on the maneuver unit vehicles and the positions required.
  - 3. The unit prioritizes construction based on directives from the maneuver commander.
  - 4. The unit constructs positions according to the commander's priorities. NOTE: The commander's plans may have some positions constructed to turret defilade while others are hull defilade.
    - a. Prepares hasty positions.
      - (1) Forms parapets around the vehicles to improve protection from high-explosive antitank (HEAT) projectiles and provide limited concealment.
        - a Excavates and built-up a frontal parapet as high as practical (without interfering with the vehicle weapons system).
        - b Improves protection by excavating deeper and extending the parapet around the sides of the vehicles.
      - (2) Improves hasty positions to deliberate positions as time permitted.
    - b. Prepares deliberate positions to protect the vehicles from kinetic energy hypervelocity projectiles.
      - (1) Constructs positions in the following four parts:
        - a Hull defilade.
        - b Concealed access ramp or route.
        - c Hiding location.
        - d Turret defilade.
      - (2) Adjusts position depths for the surrounding terrain, such as the position depth on a reverse slope not being as great as on level ground.
    - c. Ensures that positions suited the vehicle requirements by driving the vehicles into position at various stages of construction.
    - d. Disperses out or hauls away the spoil.
- \* 5. The element leader submits status reports to the company and maneuver unit according to the unit standing operating procedure (SOP).

<b>PERFORMANCE MEASURES:</b>	<b>GO</b>	<b>NO-GO</b>
1. The element coordinated with the maneuver company and determined the type and location of the positions. 2. The element used the unit planning factors to estimate the completion time. 3. The element prioritized construction based on directives from the maneuver commander. 4. The element constructed positions according to the commander's priorities. <ul style="list-style-type: none"> <li>a. Prepared the hasty positions.                             <ul style="list-style-type: none"> <li>(1) Formed parapets around the vehicle to improve protection from high explosive antitank (HEAT) projectiles and provide limited concealment.</li> <li>(2) Improved hasty positions to deliberate positions as time permitted.</li> </ul> </li> <li>b. Prepared deliberate positions to protect the vehicles from kinetic energy hypervelocity projectiles.                             <ul style="list-style-type: none"> <li>(1) Constructed the positions in four parts.                                     <ul style="list-style-type: none"> <li>a Hull defilade.</li> <li>b Concealed across ramp or route.</li> <li>c Hiding positions.</li> <li>d Turret defilade.</li> </ul> </li> <li>(2) Adjusted position depths for the surrounding terrain.</li> </ul> </li> <li>c. Ensured that positions suited the vehicle requirements.</li> <li>d. Dispersed or hauled away the soil.</li> </ul> <li>5. The element leader submitted status reports to the company and maneuver unit according to the unit standing operating procedure (SOP).</li>		

<b>ITERATION:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>T</b>

TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS GO							
TRAINING STATUS GO/NO-GO							

**Files**

Organization	File Type	File Title	File Title

**Supporting Products (References) <http://www.apd.army.mil>**

FM 5-34 Engineer Field Data.

FM 5-103 SURVIVABILITY

FM 5-19 Composite Risk Management

ATP 5-19 RISK MANAGEMENT [http://armypubs.army.mil/doctrine/DR\\_pubs/dr\\_a/pdf/atp5\\_19.pdf](http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp5_19.pdf)

ATP 5-19 (Change 001 09/08/2014 78 Pages) RISK MANAGEMENT

[http://armypubs.army.mil/doctrine/DR\\_pubs/dr\\_a/pdf/atp5\\_19.pdf](http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp5_19.pdf)**TADSS**

Number	Title	Product Type

**Supporting Individual Tasks**[052-254-1042 Level Fill Material in a Fill Area With the Angle Blade of a Crawler Tractor](#)[052-227-1225 Drive an Armored Combat Earthmover \(ACE\), M9](#)[052-254-1040 Spread a Stockpile With a Crawler Tractor](#)[052-227-1111 Fold the Blade of an Armored Combat Earthmover \(ACE\), M9](#)[052-227-1200 Perform Dozing Operations With an Armored Combat Earthmover \(ACE\), M9](#)[052-227-1226 Construct Vehicle Fighting Positions With an Armored Combat Earthmover \(ACE\), M9](#)[052-254-1039 Excavate a Hull Defilade Position With a Crawler Tractor](#)[052-256-3047 Direct Scoop Loader Operations](#)[052-254-1049 Rip Material With a Crawler Tractor](#)[052-227-3101 Direct Recovery Operations on an M9 Armored Combat Earthmover \(ACE\)](#)[052-256-3048 Direct Utility Tractor Operations](#)[052-254-1046 Remove Brush With a Crawler Tractor](#)[052-227-1110 Unfold the Blade of an Armored Combat Earthmover \(ACE\), M9](#)[052-256-3043 Direct Crawler Tractor Operations](#)[052-227-1240 Perform Scraper Operations With an Armored Combat Earthmover \(ACE\), M9](#)[052-227-1241 Handle Palletized Cargo With an Armored Combat Earthmover \(ACE\), M9](#)[052-227-1250 Conduct Recovery Operations With an Armored Combat Earthmover \(ACE\), M9](#)



[052-312-7103 Plan Survivability Operations](#)

[052-227-1103 Operate the Winch of an Armored Combat Earthmover \(ACE\), M9](#)

[052-227-1233 Perform Fording Operations With an Armored Combat Earthmover \(ACE\), M9](#)

[052-191-1362 Camouflage Equipment](#)

[052-195-4009 Determine Logistical Requirements for Nonexplosive Antivehicular Obstacles](#)

[052-225-3305 Estimate Requirements for Vehicle Fighting Positions](#)

[052-227-1106 Operate a Fixed Fire Extinguisher on an Armored Combat Earthmover \(ACE\), M9](#)

[052-227-1135 Operate a Nuclear, Biological, Chemical \(NBC\) System](#)

[052-227-2106 Direct Adjusting Track Tension on an Armored Combat Earthmover \(ACE\)](#)

[052-227-3110 Direct the Folding of the Blade of an M9 Armored Combat Earthmover \(ACE\)](#)

[052-227-3111 Direct Unfolding the Blade of an M9 Armored Combat Earthmover \(ACE\)](#)

### **Supported AUTL/UJTL Tasks**

[ART 6.7.1.2.1 Construct Vehicle Fighting Positions](#)

### **Supporting Collective Tasks**

[05-3-3014 Construct Vehicle Protective Positions](#)

[05-2-0018 Conduct Report Procedures](#)

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[Print](#)[Close](#)**Task Number:** 05-3-2001**Task Title:** Emplace Situational Obstacles**Task Type:** Collective**Proponent:** ENGINEERS**Task Data**

**Conditions:** The element is part of a maneuver Brigade Combat Team (BCT) or Task Force (TF). The higher HQ staff planning has been conducted. An approved maneuver plan with the situational obstacle execution matrix is provided for the emplacement of ground emplaced situational tactical obstacles. The element has prepared for the obstacle type. The element has all required Class V (mines), Class IV (barrier materials), equipment and personnel available. The supporting fires integration planning has been coordinated to support the Obstacle execution Matrix.

**Standards:** The element prepares for and emplaces situational obstacles In Accordance With (IAW) the Situational Obstacle-Execution Matrix. Triggering events are identified and reported in an accurate and timely manner. The element confirms direct or indirect-fire support coordination. The element emplaces situational obstacle (s) to achieve the desired effect in conjunction with direct or indirect fires. The element enforces time standards to minimize the loss of personnel, equipment and the ability to maneuver. The time required to perform this task is increased when conducting it in mission-oriented protective posture (MOPP) 4.

**Safety Notes:** In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination. .

**Environment:** Fm 3-34.5 has been replaced by ATP 3-34.5

PERFORMANCE STEPS
<p>* 1. The element leader receives the order to execute the situational obstacle IAW the situational obstacle execution matrix. NOTE:Time constraints may require the element to perform cursory troop leading</p>

procedures. The element leader provides enough information to the squad leaders so they can prepare their personnel and equipment.

- a. The element leader issues a Warning Order (WARNORD) to subordinate leaders.
- b. Conducts reconnaissance of obstacle location(s).
- c. The element leader issues an OPORD.
- d. Coordinates for fire support at obstacle location(s).

\* 2. The element prepositions equipment and materials -

- a. Barrier materials (CL IV) where they can react within the timeline established.
- b. VOLCANO, MOPMS or intelligent Wide-Area Munitions (WAMs), Networked Munitions (SPIDER) and necessary Class V reloads where they can react within the established timelines.

\* 3. The element leader conducts rehearsals. NOTE:Once the unit receives the orders with the situational obstacle execution matrix they should rehearse the execution of the obstacle. The focus of the rehearsal is to confirm the timing requirements and ensure that all persons involved in the obstacle execution understand their responsibilities. The unit should verify, if possible, how long it will take to commit the obstacle assets to the target location.

\* 4. The element emplaces situational obstacle(s). NOTE:Situational obstacles can incorporate any type of obstacle that can be employed within the time required. Although the U.S. ban on persistent land mines has resulted in a greater reliance on SCATMINES to fulfill tactical obstacle requirements, the limited duration of SCATMINES (after their activation) makes them most suitable for use as situational obstacles.

- a. Provides operations security (OPSEC), physical protection, and maintenance of VOLCANO, MOPMS, WAM or SPIDER assets.
- b. Observes and reports enemy action in the named areas of interest (NAIs). NOTE:Situational obstacles are typically triggered by enemy actions during the defense and enemy reactions during the offense. Effective triggers are linked to a detailed trigger-observer plan that is part of the information collection plan and is included in the synchronization matrix or decision support template
- c. Confirms the decision to emplace obstacle(s) based on enemy "triggers" at NAI(s), (enemy movements and observation).
- d. Issues a SCATMINEWARN.
- e. Emplaces situational obstacle(s) in the target area of interest (TAI) before the enemy arrived.
  - (1) Emplaces VOLCANO.
  - (2) Emplaces MOPMS.
  - (3) Emplaces Wide Area Munitions (WAM).
  - (4) Emplaces Networked Munitions (SPIDER).
- f. Submits a SCATMINE report.
  - (1) Reports DTG of the self-destruct time for the last obstacle emplaced.
  - (2) Provides the status and locations of obstacle(s) emplaced to higher HQ.
- g. Recovers and repositions the assets, if not used.
- h. Establishes security.

\* 5. Reports the location of the obstacle(s) to higher headquarters (HQ) according to the unit tactical standing operating procedure (TACSOP).

<b>PERFORMANCE MEASURES:</b>	<b>GO</b>	<b>NO-GO</b>
1. The element leader received the order to execute the situational obstacle IAW the situational obstacle execution matrix.		
2. The element prepositioned equipment and materials -		
3. The element leader conducted rehearsals.		
4. The element emplaced situational obstacle(s).		
5. Reported the location of the obstacle(s) to higher headquarters (HQ) according to the unit tactical standing operating procedure (TACSOP).		

<b>ITERATION:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>T</b>
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS GO							

TRAINING STATUS GO/NO-GO							
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**Files**

Organization	File Type	File Title	File Title

**Supporting Products (References) <http://www.apd.army.mil>**

FM 90-7 COMBINED ARMS OBSTACLE INTEGRATION

FM 3-34.210 (FM 20-32) Explosive Hazards Operations.

FM 3-34.210 Explosive Hazards Operations.

FM 5-19 Composite Risk Management

ATP 5-19 RISK MANAGEMENT [http://armypubs.army.mil/doctrine/DR\\_pubs/dr\\_a/pdf/atp5\\_19.pdf](http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp5_19.pdf)

ATP 3-90.8 Combined Arms Countermobility Operations

ATP 5-19 (Change 001 09/08/2014 78 Pages) RISK MANAGEMENT

[http://armypubs.army.mil/doctrine/DR\\_pubs/dr\\_a/pdf/atp5\\_19.pdf](http://armypubs.army.mil/doctrine/DR_pubs/dr_a/pdf/atp5_19.pdf)**TADSS**

Number	Title	Product Type
05-20A	M71 Remote Control Unit for MOPMS Trainer (Local TADSS – Not in TSMATS)	Device
05-100	Wide Area Munition (WAM) (HORNET) Collective Trainer XM97	Device
05-20A	M71 Remote Control Unit for MOPMS Trainer	Device
05-101	Wide Area Munition (WAM) (HORNET) Individual Trainer XM98	Device
05-22	M-7 Dispensing Set, Munition, Network Command (Spider) Trainer	Device

**Supporting Individual Tasks**[052-310-7104 Plan Obstacle Turnover](#)[052-316-7105 Plan Platoon Direct Fires](#)[052-238-1637 Perform as a Member of an Obstacle Emplacing Team](#)[052-192-1285 Remove a Spider Munition Control Unit \(MCU\)](#)[052-192-2081 Perform a Volcano Mine Canister Test](#)[052-192-2080 Perform Volcano Bit and Arm Tests](#)[052-192-1606 Install a Spider Repeater](#)[052-310-7106 Plan Countermobility for Defensive](#)[052-310-7107 Plan Situational Obstacles](#)[052-316-7106 Direct Platoon Direct Fires](#)

[171-091-1020 Direct Emplacement of an Obstacle by a Platoon](#)

[052-192-1284 Install a Spider Munition Control Unit \(MCU\)](#)

[052-192-3270 Supervise the Installation of a Spider Munition Field](#)

[052-192-2031 Operate the Remote Control Unit \(RCU\) for the Modular-Pack Mine System \(MOPMS\)](#)

[052-192-2077 Operate a Ground Volcano System](#)

[052-192-1232 Prepare a Modular-Pack Mine System \(MOPMS\) for Operation in the Hardwired Mode](#)

[052-192-2030 Operate a Modular-Pack Mine System \(MOPMS\)](#)

[052-192-2152 Emplace an M93 Hornet \(Wide-Area Munition \[WAM\]\) for Remote Operations](#)

[052-192-3201 Direct the Emplacement of an M93 Hornet \(Wide-Area Munition \[WAM\]\) for Area Distribution](#)

[052-192-4201 Supervise the Placement of an M93 Hornet \(Wide-Area Munition \[WAM\]\) Field](#)

[052-192-2082 Operate a Volcano Dispenser Control Unit](#)

[052-192-3166 Direct the Installation of a Modular-Pack Mine System \(MOPMS\) Minefield](#)

[052-192-4112 Determine Modular-Pack Mine System \(MOPMS\) Minefield Logistical Requirements](#)

[052-195-1020 Install Wire Obstacle Materials](#)

[052-195-3067 Determine Logistical Requirements for Wire Obstacles](#)

[052-195-4009 Determine Logistical Requirements for Nonexplosive Antivehicular Obstacles](#)

[052-310-7101 Plan Individual Obstacles in Support of Engagement Area Development \(EAD\)](#)

[052-310-7102 Direct Obstacle Emplacement](#)

[052-218-4008 Prepare an Obstacle Plan](#)

[052-193-3602 Calculate Explosive Requirements for Deliberate Road Crater](#)

[052-193-3601 Calculate Explosive Requirements for Hasty Road Crater](#)

[052-193-3603 Calculate Explosive Requirements for Relieved-Face Road Crater](#)

[052-192-2205 Operate the Remote Control Unit \(RCU\) for the Spider Munition](#)

[052-192-1605 Install a Spider Long Range Antenna](#)

[052-192-2210 Set-Up a Spider Remote Control Station \(RCS\)](#)

### **Supporting Drills**

[05-4-D0008 Emplace a Disrupt/Fix Volcano \(Ground\) Minefield](#)

[05-4-D0002 Construct a Hasty Crater](#)

[05-4-D0010 Construct an Eleven-Row Antivehicular Wire Obstacle](#)

[05-4-D0007 Emplace a Modular-Pack Mine System \(MOPMS\)](#)

[05-4-D3016 Perform Reload of the Volcano \(Ground\)](#)

**Supported AUTL/UJTL Tasks**

[ART 1.7.2 Construct, Emplace, or Detonate Obstacles](#)

**Supporting Collective Tasks**

[05-2-0018 Conduct Report Procedures](#)

[05-3-2012 Emplace a Modular-Pack Mine System \(MOPMS\) Disrupt or Fix Minefield](#)

[05-3-2011 Emplace a Volcano Minefield](#)

[05-3-2017 Create a Crater Obstacle Using Explosives](#)

[05-3-2019 Construct a Wire Obstacle](#)

[05-3-2013 Emplace a Munition Field, \( Networked Munitions \)](#)

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- 1 **Appendix B**
- 2 **2020 Bureau of Land Management and Idaho Military Division Orchard**
- 3 **Combat Training Center Memorandum of Understanding (MOU)**

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**MEMORANDUM OF UNDERSTANDING**

**Between**

**THE GOVERNOR OF IDAHO**

**ON BEHALF OF THE IDAHO MILITARY DIVISION (IMD)**

**and**

**THE IDAHO STATE DIRECTOR, BUREAU OF LAND MANAGEMENT (BLM)**

**Agreement # ID-20-019**

**I. DESCRIPTION OF SUBJECT**

The Orchard Combat Training Center (OCTC), formally known as the Orchard Training Area (OTA), is located within the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA), and contains approximately 142,500 acres of federal and state lands centered about 22 miles south of Boise, Idaho (Exhibits A and B). The OCTC is the second largest National Guard (NG) training range in the United States, and is used for armored vehicles, artillery, infantry, and aviation training by all branches of NG and Reserve forces from across the nation. The OCTC is also used for cooperative training by local and regional law enforcement units.

The OCTC is one of the most advanced armored vehicle training ranges in the world, with 21 firing ranges located around the periphery of an approximate 53,500-acre Impact Area. The Impact Area is surrounded by an approximate 89,000-acre Maneuver Area in which tracked and wheeled vehicle training, on-foot maneuver, and bivouacs are conducted.

**II. HISTORY AND BACKGROUND**

The Idaho Military Division (IMD) began using the public lands in the NCA for military training in 1953.

In 1971, approximately 26,000 acres of public land along the Snake River Canyon were withdrawn by Public Land Order (PLO) 5133 as the Snake River Birds of Prey Natural Area (BPNA) to protect the densest known nesting population of birds of prey in North America. When the BPNA was established, the BLM initiated a research and monitoring program to study the habitat needs of raptors nesting in the area. In 1980, based on findings from this research, the

Secretary of Interior withdrew approximately 482,640 acres by PLO 5777 as the Snake River Birds of Prey Area (BOPA).

On June 25, 1979, the Governor of Idaho, on behalf of the IMD, and the BLM Idaho State Director first entered into a Memorandum of Understanding (MOU) to authorize continued NG military training activities on the public lands now known as the OCTC. The latest MOU was signed in 2017, has a thirty (30) year term, and specifies that it be reviewed at five (5) year intervals.

On August 4, 1993, Congress established the NCA by Public Law 103-64 [16 USC 460iii, ct. seq.], hereinafter referred to as "the Act," for the purpose of conserving, protecting, and enhancing raptor populations and habitats, and the scientific, cultural, and educational resources and values of the public lands in the conservation area. Among other things, the Act set forth provisions for Reserve and NG use of the OTA. On March 30, 2009, Section 2301 of Subtitle D of the Omnibus Public Land Management Act (Public Law 111-11) renamed the NCA in honor of Morley Nelson.

On September 30, 2008, the BLM Idaho State Director signed a Record of Decision for the Snake River Birds of Prey NCA Resource Management Plan (RMP), which provides for continued military training activities in the OCTC by NG and Reserve forces.

### III. PURPOSE

- A. To authorize military use of the OCTC pursuant to the 2008 NCA RMP.
- B. To provide the IMD with continued long-term authorization, as required by Department of Defense and NG Bureau regulations, in order to allow for adequate amortization of developments and improvements.
- C. To provide for the continued use of the OCTC by the IMD at a level that is compatible with the protection for raptor populations and habitats, and the scientific, cultural and educational resources and values of the public lands in the NCA.
- D. To provide a mechanism for subsequent review of the MOU and to provide an amendment procedure to implement mutually acceptable modifications.

#### IV. OBJECTIVES

- A. To continue military use of the public lands in the OCTC consistent with Section 4(e) of the Act.
- B. To provide BLM and IMD clear operating procedures, responsibilities, and limitations for the use and management of the OCTC.
- C. To ensure the safety of the general public, BLM, and military units using the OCTC.
- D. To provide for the authorization and protection of IMD facilities in the OCTC.
- E. To provide for the rehabilitation of areas disturbed by military training or military training-related fires.
- F. To provide a means to control unauthorized use of the OCTC.

#### V. AUTHORITY

The authority for this MOU is contained in Section 4(e) of the Act of August 4, 1993 (PL 103-64); and the BLM/IDARNG MOU of March 19, 2002 (ID-237, Amendment 1).

- A. Additional BLM authority:
  - (1) Section 307(b) of the Federal Land Policy and Management Act of 1976 (Public Law 94-579; 43 USC 1732), as limited by Section 302(b)
  - (2) Section 2.10 of the 2008 NCA RMP
  - (3) Intergovernmental Cooperation Act (PL 90-577)
- B. Additional IMD authority:
  - (1) Idaho Code (Title 46)
  - (2) Executive Orders of the Governor of Idaho
  - (3) NG Bureau Directives

#### VI. DEFINITIONS

A. IA - Impact Area: That area (53,487-acres) within the perimeter of the Range Road marked on attached Exhibit A. This area is used for live firing of small arms, and various mortars, tank, and artillery weapons. All projectiles fired within the OCTC must land in the IA.

B. TA - Training Area: That area (54,775-acres) of the OCTC located outside the IA that limits maneuver activities to roads and trails, but allows for dismounted training activities.

C. HMA - Heavy Maneuver Training Area: The area (34,222-acres) within the OCTC available for military training exercises off road (Exhibit C).

D. OCTC – Orchard Combat Training Center: Entire training area (142,484-acres) used by IMD, encompassing both the IA and HMA, generally shown on attached Exhibit A, and shown by the legal description attached as Exhibit B.

E. Training: All activities associated with IMD, NG, and DoD use of the OCTC, including managing resources, developing personnel skills, and improving proficiencies to meet military objectives.

F. The Act: The Snake River Birds of Prey National Conservation Area Act of August 4, 1993 (PL 103-64), and amendment thereto [Section 2301 of Subtitle D of the Omnibus Public Land Management Act of March 30, 2009 (PL 111-11)].

## VII. MUTUAL RESPONSIBILITIES

BLM and IMD agree:

A. The level of military training activity will be compatible with the purpose of the enabling legislation in accordance with Sections 4(b)(1) and 4(b)(2) of the Act.

B. To meet annually during the second quarter (Jan. - Mar.) of the federal fiscal year to discuss and outline IMD's annual operating plan and review the prior year's activities.

C. To jointly assess, by the end of each calendar year, soil and vegetation disturbance (including fires) caused by training activities that require remediation.

D. To review this MOU at approximate five (5) year intervals beginning with the date of approval of this document.

E. To develop and keep current an annual OCTC Prescribed Fire Plan per BLM requirements (Interagency Prescribed Fire Planning and Implementation Guide PMS 484).

F. To protect and manage cultural resources within the OCTC in accordance with the 1989 Cultural Resources Memorandum of Agreement and subsequent amendments or revisions thereto.

G. To develop and keep current a Law Enforcement Standard Operating Procedures for the OCTC, Exhibit C.

## VIII. INDIVIDUAL RESPONSIBILITIES

### A. IMD:

- (1) Coordinate and control military use of the OCTC.
- (2) Provide BLM with information concerning major changes in operations or activities in sufficient time to ensure BLM can respond with appropriate and timely authorization.
- (3) Conduct all training activities in accordance with Section 4(e) of the Act and other applicable federal laws and regulations, as well as any Conservation Agreements and/or Conservation Strategies (and associated mitigation or conservation measures) to protect special status plant and animal species.
- (4) Utilize the 53,500-acre IA to conduct all live fire training activities (small arms, various mortars, tank, aviation, projectiles, and artillery weapons). Maneuver and dismounted training activities will primarily occur on the 89,000-acres outside the IA (Exhibit C). However, maneuver training may occur within the IA for designated training activities as needed.
- (5) Install and maintain warning, safety, and closure signs around the perimeter of the IA, as required by County ordinance. BLM published in the Federal Register a federal closure order for the IA on January 9, 1986. The closure was subsequently adopted as an Ada County ordinance. IMD shall be responsible for control of unauthorized public access into the IA. However, BLM confers no law enforcement authority on IMD for this purpose.
- (6) Install and maintain temporary warning signs on roads likely used by the public to enter the OCTC when IMD temporarily closes the OCTC or portions thereof to enhance public safety during periods of concentrated use.
- (7) Conduct aerial and/or ground reconnaissance prior to all live firing or other military activities that pose a threat to public safety to ensure that humans are out of the IA or any other unsafe areas.
- (8) Take action to prevent fires from IMD activities, and to control or suppress all fires within the OCTC. In accordance with the annual OCTC Prescribed Fire Plan, and as soon as possible following containment, report all fires to the BLM Boise District fire dispatch office, giving location, size, time of containment, and cause (if known).

(9) In accordance with federal law and regulations, and subject to appropriated funds, reimburse all direct BLM suppression and rehabilitation costs incurred for fires caused by military activities, including: 1) inventorying for cultural resources and special status species as required by the National Historic Preservation Act and National Environmental Policy Act (NEPA), 2) if reasonably required by BLM, fencing and signing of treated sites to protect them from subsequent recreation use, livestock grazing, and military training activities, 3) reimbursing BLM for reasonable costs expended for post-fire contracted NEPA compliance, project implementation, and post-implementation monitoring, plus other costs, including seed, herbicide, and direct equipment costs.

(10) Following the joint assessment discussed in Section VII.C. above, develop proposals to rehabilitate areas within the OCTC disturbed by military training-related fire and other military activities, and submit the proposals to BLM for review and approval. Project proposals shall be submitted timely, and shall include areas to be treated, species to be planted, seeding application rates, control of competing vegetation, timing of treatment(s), and post-treatment monitoring and site protection.

(11) Repair or replace range improvements, including fences and cattle guards, damaged or destroyed by military activities. All range improvements must be kept in good repair during the period of April 1 - June 30 and October 16 - February 28, the normal periods of authorized livestock use.

(12) Annually remove debris and litter generated by IMD activities unless otherwise agreed by the BLM Boise District Manager.

(13) Take reasonable efforts to locate and destroy all unexploded munitions within the area, and eliminate any other similar hazards that may result from military use of the OCTC.

(14) Subject to future federal legislative appropriation, if use of the OCTC is abandoned or this MOU is terminated, decontaminate the affected public lands in accordance with federal law.

(15) Defend, indemnify, and hold harmless the BLM from all lawful damages and claims for damages caused by military activities within the OCTC in accordance with the provisions of the Federal Tort Claims Act.

(16) Obtain appropriate BLM authorization for removal and use of cinders or other mineral materials from deposits on public lands and perform timely reclamation of disturbed sites following expiration of permits.

(17) Obtain appropriate BLM authorization prior to construction of facilities, structures, or roads on public lands in the OCTC. Conduct enhancement measures associated with each new RoW approval per the attached standard operating procedure (SOP) (Exhibit D). The SOP process will use the best available information for delineation (impact and enhancement) purposes.

(18) Reasonably assist and cooperate with BLM in the form of available funding and/or staff assistance for monitoring studies required under Section VIII.B(4) of this MOU, and Section 1 (10) of the Act.

(19) With BLM concurrence, IMD may take actions to retire Animal Unit Months (AUMs) and reduce grazing preference in the Sunnyside Spring/Fall and Winter Allotments by purchasing AUMs from existing permittees.

(20) IMD will continue with periodic and annual reporting of usage, incidents, wildfires, etc. in the OCTC. As required by the 2008 Law Enforcement Standard Operating Procedures, the IDARNG Security Operations Center Supervisor will, at least quarterly, provide the BLM District Law Enforcement Ranger with an electronic copy of incidents in the OCTC for statistical data sharing purposes. Likewise, in accordance with the annual OCTC Prescribed Fire Plan, as discussed in Section VIII.A.(7), IMD will report all fires in the OCTC as soon as possible to the BLM Boise District fire dispatch office.

**B. BLM:**

(1) Give prior notice to OCTC Range Control and receive escort from OCTC Range Control when entering the IA. Give prior notice to OCTC Range Control when entering the training area.

(2) Provide law enforcement in a timely manner when requested by the IDARNG SOC.

(3) Review and approve IMD proposals for facilities, structures, and roads on public lands in the OCTC in accordance with federal law and subject to Section IX.C. of this MOU.

(4) Pursuant to the 2008 NCA RMP, either annually conduct or provide for monitoring studies to ensure that military vehicular maneuver training does not adversely affect vegetation communities in the OCTC with 10% or greater shrub canopy cover.

(5) Pursuant to the BLM-IDARNG Cooperative Fire Agreement, may take actions to aid in suppressing wildfires within the OCTC and will notify OCTC Range Control immediately when taking such actions.

(6) Provide IMD with a breakdown of all direct reimbursable costs being requested as a result of military training-related fire suppression and emergency habitat rehabilitation, or other mutually agreed upon projects.

#### IX. LIMITATIONS

A. Nothing in this MOU shall be construed as limiting or modifying in any way the authority, or statutory or regulatory responsibilities of the Governor of Idaho or BLM State Director, or as binding either the State or BLM to perform beyond their respective authorities, or as requiring either party to assume or expend any sum in excess of available appropriations. Each and every provision of this MOU is subject to applicable laws of the State of Idaho and of the United States, and applicable federal regulations.

B. Active components of the Armed Forces may only use the OCTC when conducting joint operations with Idaho Military Division (IMD) or when those exercises are either supervised, coordinated, and approved by IMD.

C. IMD may be authorized new levels or types of training, additional land use authorizations, or rights-of-way within the OCTC if it can be demonstrated that the proposal is compatible with the enabling legislation.

#### X. EFFECTIVE DATE

This MOU will be effective upon approval by the signatures of the Governor of Idaho and the BLM Idaho State Director and will remain in full force and effect for 30 years after the date of the last approving signature, unless either formally terminated by mutual consent or by either party upon five (5) years advance written notice to the other party.



XI. REVIEW OF THE MOU

A. A review of the MOU will commence on January 1 every fifth year following the date of the last signature hereto. The review period will extend from January 1 through June 30. One issue to be discussed at each five (5) year review will be the extension of the MOU to maintain a thirty (30) year life. Issues not discussed during the prescribed review period will be reviewed during the next five (5) year review period, unless addressed in the amendment process outlined in Section XII of this MOU.

XII. AMENDMENTS

Amendments to this MOU may be proposed by either party at any time and shall become effective upon approval by the BLM Boise District Manager and the Adjutant General, State of Idaho.

XIII. SIGNATURES

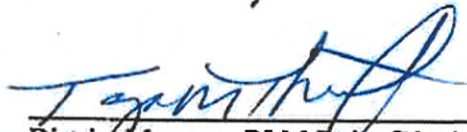
Recommended for approval this 6 day of August, 2020

**STOKES.STEPH  
EN.ANDREW.13  
91032005** Digitally signed by  
STOKES.STEPHEN.ANDRE  
W.1391032005  
Date: 2020.08.06 09:15:39  
-06'00'  
Staff Judge Advocate, IDNG

Recommended for approval this \_\_\_\_\_ day of \_\_\_\_\_, 2020

**BOICE.PAUL.AN  
DREW.1158475  
436** Digitally signed by  
BOICE.PAUL.ANDREW.115  
8475436  
Date: 2020.08.06 09:19:46  
-06'00'  
USPFO, Idaho

Recommended for approval this 12 day of August, 2020

  
District Manager, BLM Boise District  
*Hanning*

Recommended for approval this \_\_\_\_\_ day of \_\_\_\_\_, 2020



Digitally signed by Michael J. Garshak  
DN: cn=Michael J. Garshak, o=Idaho  
National Guard, ou=Adjutant General,  
email=mgarshak@imd.idaho.gov,  
c=US  
Date: 2020.08.08 12:35:06 -08'00'

\_\_\_\_\_  
Adjutant General, State of Idaho

Approved by the State of Idaho this 29 day of September, 2020



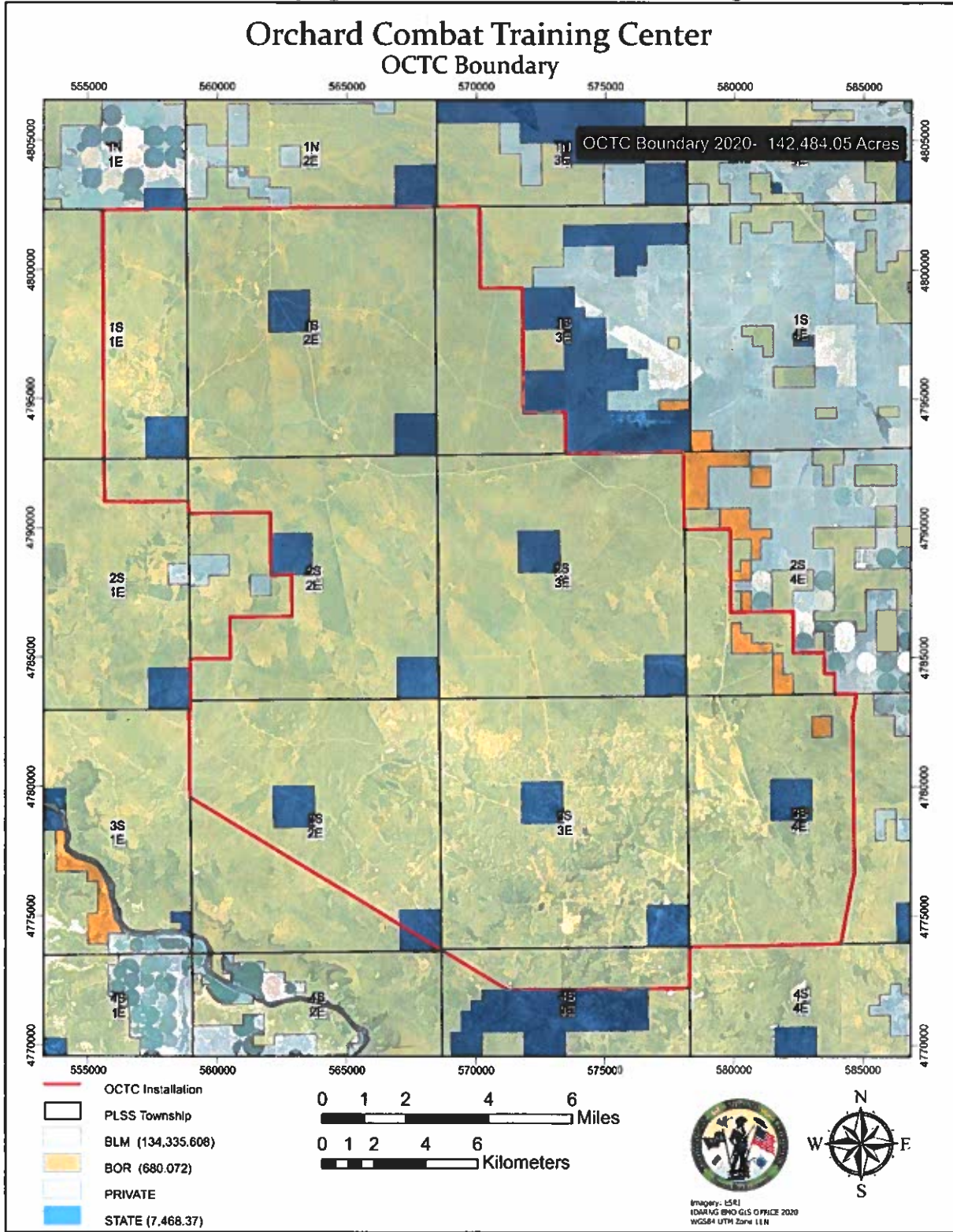
\_\_\_\_\_  
Governor, State of Idaho

Approved by BLM this 23<sup>rd</sup> day of October, 2020



\_\_\_\_\_  
BLM Idaho State Director

**Exhibit A  
Public Lands Lying Within the Orchard Combat Training Center**



**Exhibit B**  
**Public Lands Lying Within the Orchard Training Area**

Boise Meridian, Idaho:	2/13/2019	Acres
<u>T. 1 S. R. 1 E.</u>		
Sec. 1 thru 2, all		1,261.86
Sec. 11 thru 14, all		2,565.34
Sec. 23 thru 25, all		1926.29
Sec. 26 , all		644.3835
Sec. 35, all		643.2006
Sec. 36, all		<u>641.89</u>
		<u>7,682.964</u>
<u>T. 1 S. R. 2 E.</u>		
Sec. 1 thru 15, all		9,488.73
Sec. 16, all		641.49
Sec. 17 thru 35, all		1,2093.7
Sec. 36, all		<u>640.25</u>
		<u>22,864.17</u>
<u>T. 1 S. R. 3 E.</u>		
Sec. 6 thru 7, all		1,370.75
Sec. 17 thru 20, all		2,677.07
Sec. 29 thru 33, all		<u>3,323.27</u>
		<u>7,371.09</u>
<u>T. 2 S. R 1 E.</u>		
Sec. 1, all		659.06
Sec. 2, all		<u>653.74709</u>
		<u>1,312.807</u>
<u>T. 2 S. R. 2 E.</u>		
Sec. 1 thru 6, all		3,184.23
Sec. 7, N1/2		311.1
Sec. 8, N1/2		319.65
Sec. 9 thru 15		4,485.21
Sec. 16, all		640.38
Sec. 21 E1/2		320.07
Sec. 22 thru 29, all		5,1266.64
Sec. 31 thru 36, all		3,844.98
		<u>17,561.28</u>

<u>T. 2 S. R. 3 E.</u>			
Sec. 1 thru 15, all	8,955.56		
Sec. 16, all	640.82		
Sec. 17 thru 35, all	1,2018.22		
Sec. 36, all	<u>641.43</u>		
			<u>22,256.03</u>
<u>T. 2 S. R. 4 E.</u>			
Sec. 18 thru 19, all	1,398.83		
Sec. 28, W1/2	320.21		
Sec. 29 thru 33, all	3,308.73		
Sec. 34, W1/2NW1/4, SW1/4	<u>239.87</u>		
			<u>5,267.64</u>
<u>T. 3 S. R.2 E.</u>			
Sec. 1 thru 15, all	9,868.38		
Sec. 16, all	638.04		
Sec. 17,18, 20,21 (those portions lying north of the powerline- FPC Project No. 2055	1,623.63		
Sec. 22 thru 25, all	2,559.72		
Sec. 26, 27, 28, 35 (those portions lying north of powerline - FPC Project No. 2055	942.58		
Sec. 36 (the portion lying north of the powerline – FPC Project No.2055	<u>423.82</u>		
			<u>16,056.17</u>
<u>T. 3 S. R. 3 E.</u>			
Sec. 1 thru 15, all	9,617.22		
Sec. 16, all	640.65		
Sec. 17 thru 35, all	1,2047.54		
Sec. 36, all	<u>640.24</u>		
			<u>22,945.65</u>
<u>T. 3 S. R. 4 E.</u>			
Sec. 2, that portion lying west of the Simco Road right-of-way No. IDI-21406	17.5		
Sec. 3 thru 10, all	5,186.03		
Sec. 15, all	639.26		
Sec. 16, all	639.78		
Sec. 17 thru 22, all	3844.5		
Sec. 27, that portion lying west of the Simco Road right-of-way No. IDI-21406	603.43		
Sec. 28 thru 33, all	3815.76		
Sec. 34, that portion lying west of the Simco Road right-of-way No. IDI-21406	<u>468.58</u>		
			<u>15,214.84</u>

T. 4 S. R. 3 E.

Sec. 1 thru 4, all

2,558.55

Sec. 5 and 6 (those portions lying north of  
powerline - FPC Project No. 2055

759.25

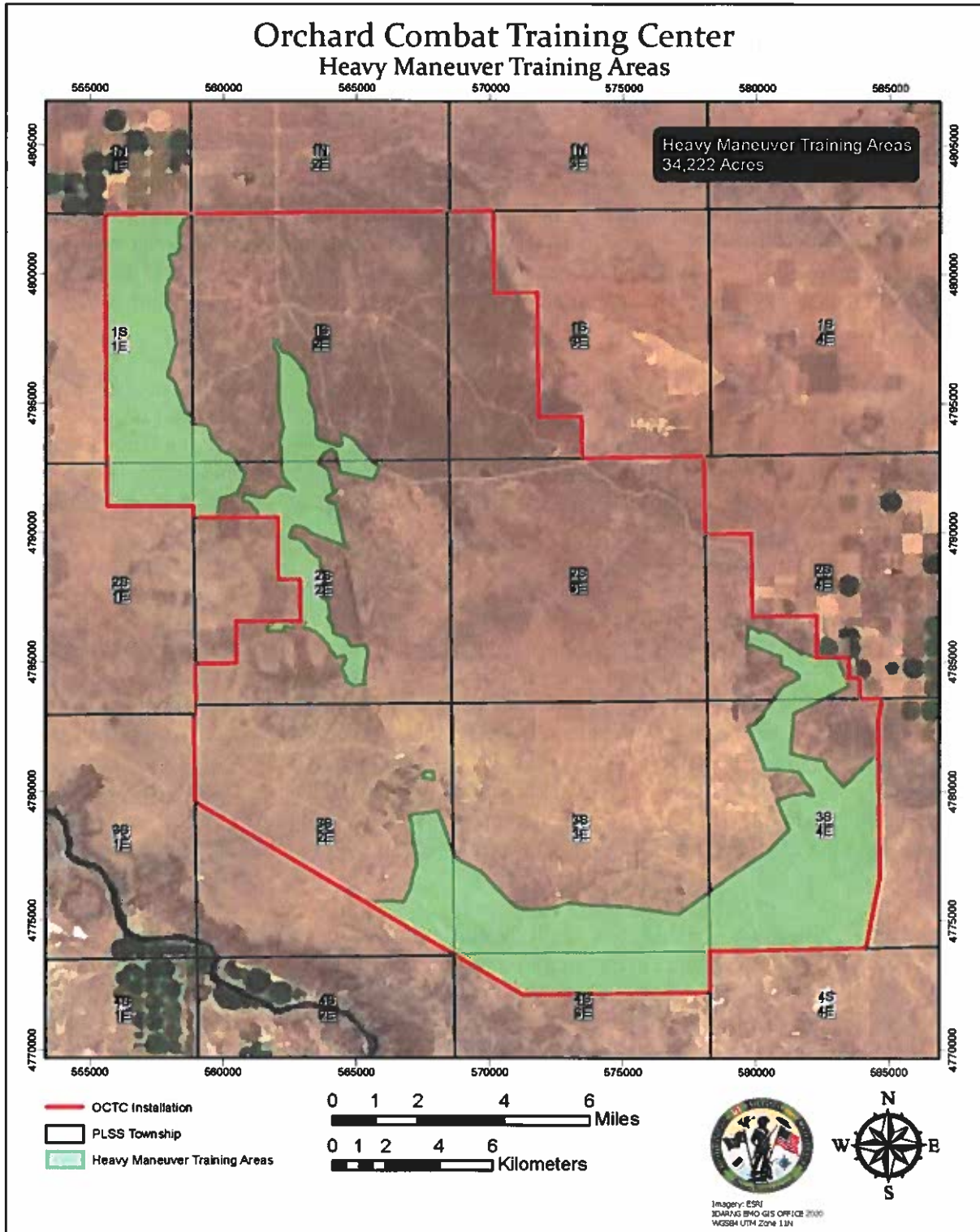
3,317.8

**Total Acreage**

**141,843.47**

### Exhibit C

### Heavy Maneuver Training Areas within the Orchard Combat Training Center



## **Exhibit D**

### **Standardized Enhancement Protocol for the Idaho Army National Guard on Bureau of Land Management (BLM) Lands within the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA)**

#### **Introduction:**

The Army National Guard (ARNG), as a participant in the Total Army Force, has a federal mission to provide trained units that are available for active duty in time of war or national emergency. The Idaho Army National Guard (IDARNG) has a state mission to provide military units that are organized, equipped, and trained to function when necessary to protect life and property, and to preserve peace, order, and public safety, under competent orders from authorities of the State of Idaho.

The IDARNG has conducted their military training operations in the area associated with the Orchard Combat Training Center (OCTC), formerly known as the Orchard Training Area (OTA), for more than 70 years (Exhibit A). Currently, the OCTC is designated as a Brigade-level training center and mobilization site for the National Guard (NG), and is found completely within the boundaries of the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA).

In 1971, the Snake River Birds of Prey Natural Area was established by Public Land Order 5133 to protect one of the densest known nesting populations of raptors in North America. As a result of Public Land Order 5133, the OCTC training boundary at the time was considerably reduced. During the following years, the Bureau of Land Management (BLM) conducted a research program to study habitat needs of raptors and determined the importance of foraging habitat on bench lands north of the Snake River Canyon. Based on this research, the Snake River Birds of Prey Area was established by Public Land Order 5777 in 1980. On August 4, 1993, Congress enacted Public Law 103-64, which provided permanent protection to the area, now known as the NCA. However, section 1(B) of the Act specifically provides for “continued military use, consistent with the requirements of section 4(e) of this Act, of the OTA by reserve components of the Armed Forces”.

Management responsibility for the NCA resides with the BLM, Boise District Office and Four Rivers Field Office (NCA Management Area). However, under PL 103-64, use of the OCTC by the IDARNG as a military training center is authorized under a Memorandum of Understanding (MOU) between the BLM and the Idaho Military Division. The current OCTC Training MOU was signed in 2017. Continued authorization of military training within the OCTC is managed under the BLM’s 2008 Resource Management Plan (RMP), and the impacts associated with this training were assessed in an Environmental Impact Statement (EIS) (DOI 2008). The IDARNG manages the natural resources of OCTC under the 2013 Integrated Natural Resource Management Plan (INRMP).



### **Enhancement- Background**

Based on the NCA's designating legislation, the BLM identified that authorization of rights-of-way (ROW) within the NCA require a net benefit be achieved for the resources (natural or cultural) of the area (i.e., enhancement). As the IDARNG's mission is dynamic in nature, changes in infrastructure components are critical for the long-term success of the mission, which require the ability to amend existing ROW and authorization of new ROW. Per the 2017 Training MOU Section VII.(A)(16), the IDARNG is required to:

Obtain appropriate BLM authorization prior to construction of facilities, structures, or roads on public lands in the OCTC. Conduct compensatory mitigation and enhancement associated with each new ROW approval per a mutually agreed process.

In order to address these requirements, the BLM and IDARNG resource staffs have developed a standardized, quantitative process (see Impact and Enhancement Calculation Process below) to delineate the area of effect and determine the required enhancement acreage needed to off-set permanent impacts and achieve a net benefit for resources within the NCA. This quantitative process would be used as the foundation for the development of project-specific enhancement plans (PSEP), outlined on page 22, to address all new IDARNG ROW's authorized after January 1, 2016.

The use of enhancement as a means to mitigate construction and other similar impacts to the SRBOP's resources, objectives, and values, is consistent with the BLM's management responsibilities under the Federal Land Policy and Management Act (FLPMA), 2008 RMP, and P.L. 103-64. The BLM's policy manual on the management of National Conservation Areas (NCA; Manual Section 6220) also requires mitigation for impacts from rights-of-way (ROW). This mitigation standard of net benefit would comply with P.L. 103-64's requirement to enhance the resources, objects, and values of the.

### **Enhancement- Impact and Enhancement Calculation Process**

All new ROW applications submitted by the IDARNG within the NCA will utilize the following Impact and Enhancement Calculation Process (IECP) to quantify impacts to raptor habitat in the NCA. Raptor habitat and associated prey habitat was identified as a suitable surrogate for quantifying impacts to the NCA. Specifically, the loss of habitat would equate to an adverse effect (debit), and the enhancement or restoration of habitat would equate to beneficial effect (credit) to raptor populations. The overall impact of these effects are directly related to the type and condition of habitat affected by the action, i.e. construction, rehabilitation, or enhancement. The IDARNG will use the process below to calculate the associated debit and credit for any ROW authorization that impacts raptor habitat in the NCA.

Site/community delineations and associated calculations will use the best available data. Currently, the 2017 NCA Vegetation Map developed by Boise State University's Geospatial Lab would be used as the primary site reference for quantifying adverse impacts and beneficial effects based on acres of vegetation classes affected by construction or enhancement activities. The map would delineate the affected area based on the community types outlined in table 1. As the vegetation map is a model-based resource it will change over time, and site-specific ground-based mapping may also be used to amend the accuracy of the map.

The following steps will be taken to calculate the project debit or site impact score (SIS):

- The project footprint (permanent loss of habitat) would be overlaid on the vegetation map. The project overlay would identify the amount and type of each condition class (Table 1) affected by the proposed action. For example, a linear impact such as a trench would be depicted with a center line. The impact area (debit) would be determined based on the proposed width of the trench, with an additional 5 meter buffer added, i.e. a one meter wide trench with buffer would be 11 meters wide, or 5.5 meters from center. This would be multiplied by the length to determine the total area affected.
- For each delineated condition class present, the habitat value (Table 1) would be multiplied by the number of acres permanently affected by soil disturbing activities.
- The calculated individual condition classes, based on the habitat value, are summed to determine the SIS.

The proposed enhancement site would be selected based on a number of variables including but not limited to: accessibility; site condition (vegetation, rocks, topography...); existing infrastructure (fences, roads, water...); proximity to recreational sites; precipitation; and other factors. The final site location would be identified through a coordinated process between the BLM and IDARNG.

Once an enhancement site, or sites, have been identified, the same calculation process used for the SIS would be used to determine the current enhancement site score (ESS-Baseline) for the site. The amount of enhancement credit received for the site is based on the change in condition classes (Table 1) for a specified area, e.g., conversion of one acre from Shrubland/Invasive Annual Grasses (SX) to Early-seral Native Shrubland /Grassland (NSG) would result in a 0.2 enhancement credit per acre. The proposed change in condition class would be identified and quantified, using the same process as the SIS to determine the proposed enhancement site score (ESS-Proposed). The difference between the ESS-Baseline and ESS-Proposed is the Net Enhancement Score (NES). In order to achieve a net benefit for the NCA, the NES must be greater than the SIS, i.e. exceeding baseline conditions requires a habitat restoration ratio greater than 1:1.

**Site Impact Score (SIS) = (CC1 (acres) + CC2 (acres) + CC3 (acres)...)**

**Enhancement Site Score (ESS-Proposed) = CC1(acres)+ CC2(acres)+ CC3(acres)...**  
**-Enhancement Site Score (ESS-Baseline) = CC1(acres)+ CC2(acres)+ CC3(acres)...**  
**Net Enhancement Score (NES)**

**NCA Net Benefit = NES > SIS**

**Table 1. IECF Condition Class Conversion Factors**

Condition Class (CC)		Canopy Cover of Primary Components (%)			
		Sagebrush	Invasive Annual Grasses	Other	Habitat Value
1	Ecological Potential (EP) Shrub- Veg Map	≥15	< 50	native perennial grass > seeding	1.0
2	Early-seral Native Shrubland /Grassland (NSG) Native Grasslands- Veg Map	< 15	< 50	native perennial grass > seeding	0.8
3	Shrubland/Invasive Annual Grasses (SX) Shrub (site data)- Veg map	≥ 5	≥50	NA	0.6
4	Non-native Seeding (NNS)	< 15	< 50	seeding > native perennial grass	0.4
5	Invasive Annual Grassland /Forbs (X)	< 5	≥50	NA	0.2
6	Facility/Developed Sites BG- Veg Map	0	0	NA	0.0

*Gateway West Final SEIS and Proposed Land Use Plan Amendments for Segments 8 and 9, Idaho: Appendix K – Compensatory Mitigation Framework for the SRBOP*

### Example: Impact and Enhancement Calculation Process

The following is an example of the IECF. Figure 1 is the proposed action area with the delineated amount of area affected, including the 5 meter buffer. Figure 2 is the proposed enhancement site, with the area delineated by existing condition classes. The calculations for the SIS, ESS-B, ESS-P, and NES are found below. The overall net project is (15.97:17.03), which exceeds the 1:1 required ratio; therefore, there is a net benefit to the NCA.

$$\text{SIS:} \quad 0.33(0) + 12.63(0.2) + 11.06(0.8) + 4.65(1.0) = 15.97$$

$$\text{ESS-B:} \quad 0.00(0) + 92.80(0.2) + 15.40(0.8) + 52.40(1.0) = 83.28$$

Based on the SIS and ESS-B, the proposed net enhancement (difference between ESS-P and ESS-B) must exceed 15.97 to result in a net enhancement for the NCA. For this example, we propose to convert 50 acres of X to NSG and 15 acres of NSG to EP. The associated ESS-P and NES score is:

$$\text{ESS-P:} \quad 0.00(0) + 42.8(.2) + 65.40(.8) + 52.40(1.) = 113.28$$

$$\text{Corrected: ESS-P:} \quad 0.00(0) + 42.8(.2) + 50.40(.8) + 67.40(1.) = 116.28$$

$$\text{NES:} \quad 116.28 - 83.28 = 33.00$$

$$\text{Net Enhancement Score:} \quad 33 - 15.97 = 17.03$$

NES > SIS (ratio exceeds 1:1)

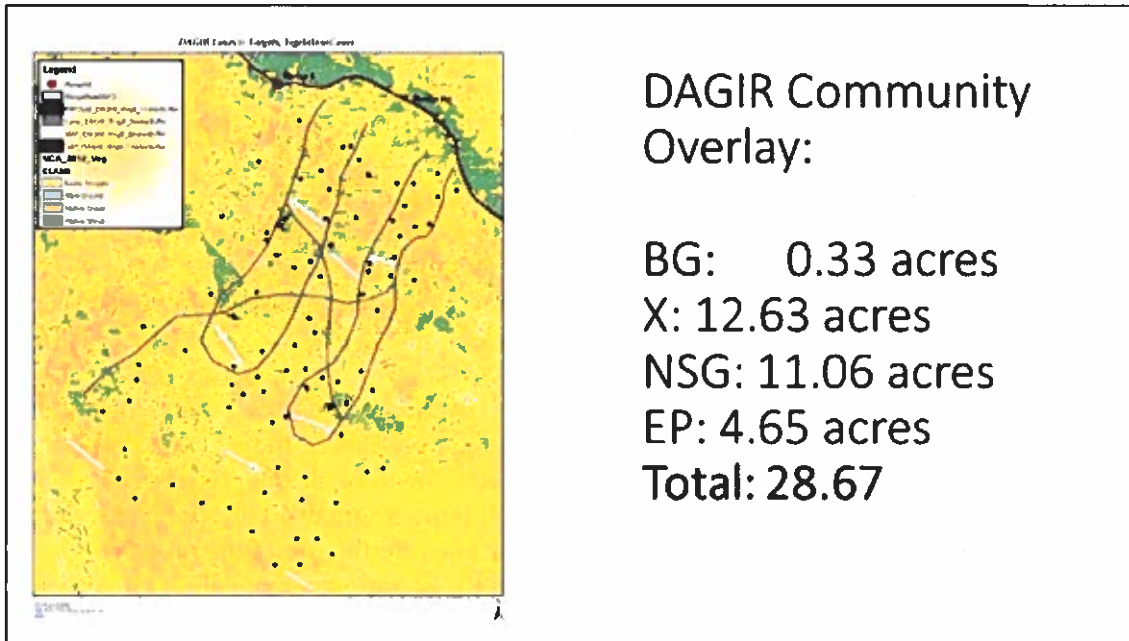


Figure 1: Proposed Action Overlaid on Vegetation Map.

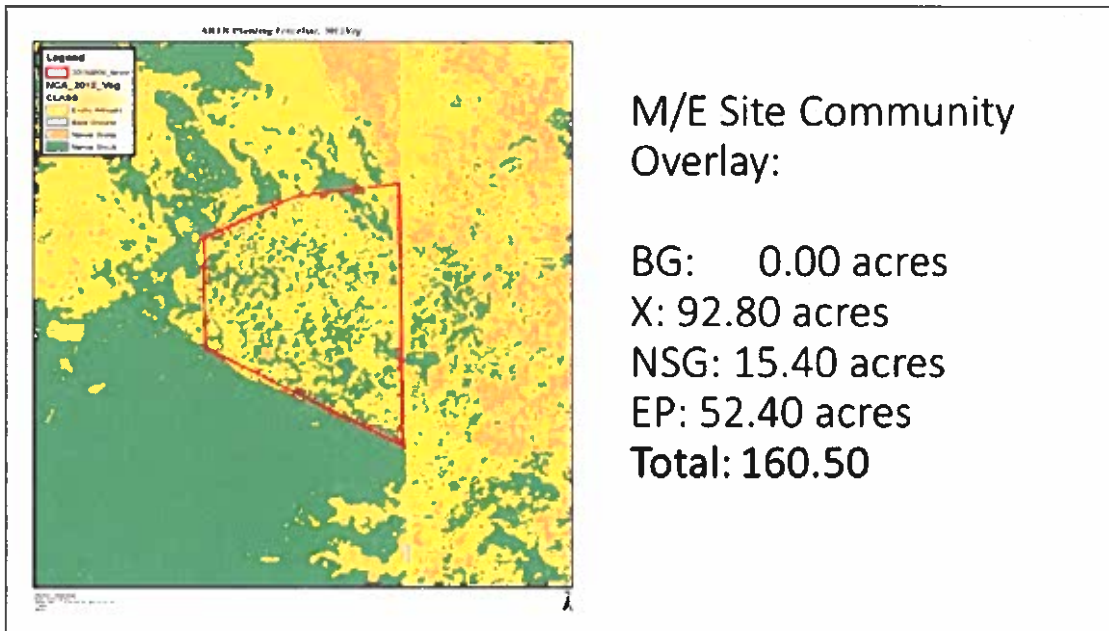


Figure 2: Proposed Enhancement Site with Vegetation Map.

The IECP establishes a logical and transparent approach to assessing baseline conditions as they apply to raptor habitat within a defined area of the NCA and provides a simple method for calculating the enhancement required to achieve a return to or exceedance of baseline raptor habitat conditions in the NCA.

The process assumes all short term impacts are successfully mitigated within the project footprint, and all permanent impacts are successfully addressed through habitat restoration treatments (see below) at a defined location outside the project footprint. All aspects of the treatment, monitoring, and success criteria for both on-site and off-site actions would be outlined in a PSEP. See example format of the PSEP below on page 22.

Per BLM requirements, the proposed enhancement action(s) outlined in the IECP must meet the defined success criteria, or trending toward it, within a defined timeframe. In the event that the action is unsuccessful, a mutually-agreed upon alternative action will be developed and implemented using the same planning process used to develop the original IECP. Enhancement actions are expected to be maintained for an amount of time equal to the life of the proposed action, or until such time the BLM deems the impact successfully mitigated/enhanced. If success thresholds are not being met due to natural disturbances or phenomena such as drought, infestations of native (or trespass?) herbivores, or wildfire with an ignition not attributable to IDARNG activities, BLM and IDARNG will assess conditions and re-set success criteria to reflect enhancement goals that can reasonably be met within 5 to 10 years under the new/disturbed conditions.

### **Project-Specific Enhancement Plans (PSEP)**

Project-specific enhancement plans will be developed through a collaborative process between IDARNG and the BLM staff. All PSEP will summarize the proposed action (including the purpose and need) in sufficient detail to give the reader “big picture” of the project, i.e. a 35% construction diagram within a defined area would be sufficient as it is not possible to have a 100% design feature under NG construction procedures. The priority of the enhancement plan is to identify and define the proposed action in sufficient detail to off-set impacts and result in a net enhancement to the NCA. The enhancement plan will follow the following format:

- 1.0 Introduction
- 2.0 Proposed Action Summary
  - 2.1 Purpose and Need
  - 2.2 Location (TRS) with Summary Maps
  - 2.3 Site Summary (Natural and Cultural Resources)
  - 2.4 Impact Summary (Quantitative)-Vegetation Map Overlay
- 3.0 Proposed Enhancement Plan
  - 3.1 Location (TRS) with Summary Maps
  - 3.2 Site Summary (Natural and Cultural Resources)
  - 3.3 Baseline Summary (Quantitative)-Vegetation Map Overlay
  - 3.4 Proposed Site-specific Enhancement Action
    - Tools and Methods
    - Timeline
    - Maintenance Actions
    - Monitoring Protocol (Baseline and After-Action)
    - Defined Success Threshold
    - Adaptive Management Actions/Process
    - Others As Needed
- 3.5 Enhancement Summary – IECP
- 4.0 References

### **Habitat Restoration Treatments**

Habitat restoration treatments would primarily be conducted within MA 1 because the 2008 RMP identifies this area as having the highest probability of restoration success. Treatment sites should include, to the extent possible, fuel control or wildland fire suppression measures, and fencing to provide durability for treatment sites.

Prioritization of restoration treatments within MA 1 should be in areas where:

- Treatments would provide the best connectivity between existing shrub communities.
- Treatments would increase the resistance/resilience of *Lepidium papilliferum* (LEPA) habitat.
- Equipment and personnel can reasonably access the site.
- Perennial native and non-native vegetation (seeding) exist and provide stable ecological conditions that facilitate restoration success.
- Existing ongoing restoration and research demonstration projects can continue to be leveraged or new, easily accessible projects can be developed.
- Sites have the ability to achieve EP or NSG (i.e., the desired future condition (DFC) for raptor habitat).

It should be noted that, depending on initial condition class, it may take multiple treatments to achieve the DCF for raptor habitat. All enhancement measures should be well defined and resilient to disturbance, to the extent possible, for the duration of the proposed project impacts.



- 1 **Appendix C**
- 2 **Vegetation and Wildland Fire Trends**

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# Vegetation and Wildland Fire Trends: 1990-2019

Orchard Combat Training Center (OCTC) and Morley Nelson Snake River Birds of Prey National Conservation Area (BOPNCA)

## Vegetation

### Current Conditions

#### Data Sources

In 2016, the IDARNG contracted Boise State University’s Boise Center Aerospace Laboratory to develop a vegetation classification map by using 2016 RapidEye 7-meter near infrared imagery and trained using on-ground signature plots throughout the study area (Spaete et al. 2016; Enterkine et al. 2018). Table 1 shows the relative vegetation cover within the OCTC, within the NCA outside of the OCTC, and the total cover within the entire NCA, as observed in 2016.

Key observations:

- Within the NCA, cheatgrass and shrubs with cheatgrass understory cover is disproportionately higher outside of the OCTC than within the OCTC
- Within the NCA, exotic annuals, Sandberg bluegrass with bare ground, sagebrush with bare ground, and rabbitbrush with bare ground are all disproportionately higher within the OCTC than outside the OCTC.

**Table 1. Acres and proportion (%) of each mapped vegetation class that occur within the OCTC, within the NCA outside of the OCTC, and the total acreage of each vegetation class within the entire NCA. Arrows next to each acreage represents the departure from within 2% of the expected proportion (e.g., cheatgrass accounts for 26% of the vegetation cover within the entire NCA but only accounts for 7% of cover within the OCTC [“▼”], therefore cheatgrass cover is not distributed evenly across the entire NCA).**

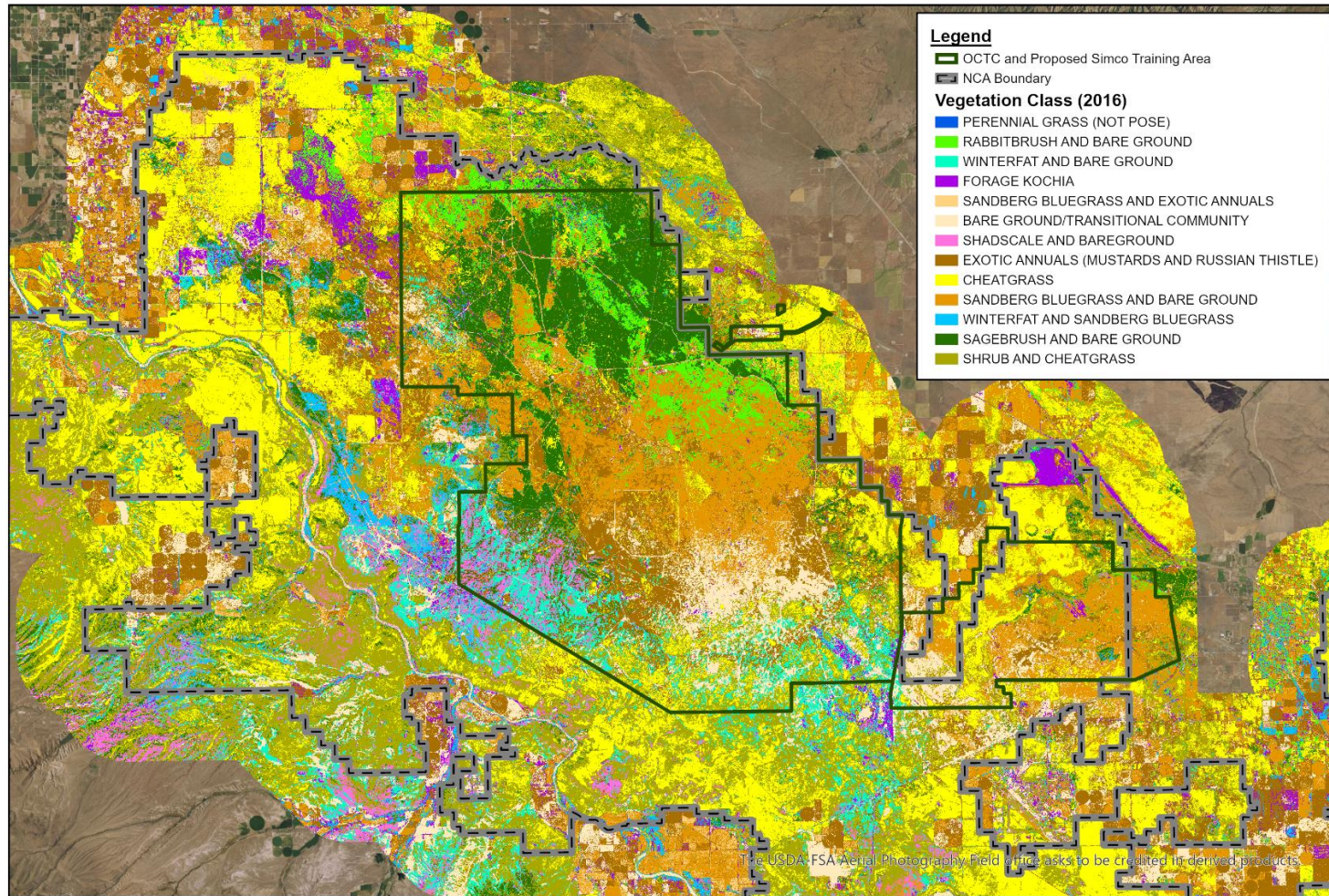
Vegetation Class	Vegetation Class Description	Acres of Vegetation Class within the OCTC	Acres of Vegetation Class within the NCA outside the OCTC	Total acres of vegetation class within the NCA
Cheatgrass	PRIMARY COVER: cheatgrass ( <i>Bromus tectorum</i> ); SECONDARY COVER: litter	10,276 (7%) ▼	146,626 (32%) ▲	156,902 (26%)
Shrub and cheatgrass	PRIMARY COVER: cheatgrass; SECONDARY COVER: shrub (need to do site visit to determine which species of shrub)	11,310 (8%) ▼	110,444 (24%) ▲	121,754 (20%)

Vegetation Class	Vegetation Class Description	Acres of Vegetation Class within the OCTC	Acres of Vegetation Class within the NCA outside the OCTC	Total acres of vegetation class within the NCA
Exotic annuals (mustards)	PRIMARY COVER: Exotic annuals (not cheatgrass) including annual mustards ( <i>Sisymbrium altissimum</i> , <i>Descurainia sophia</i> , <i>Erysimum repandum</i> ) and Russian thistle ( <i>Salsola tragus</i> ); SECONDARY COVER: bare ground or annual litter	26,973 (19%) ▲	44,030 (10%) ◆	<b>71,003 (12%)</b>
Sandberg bluegrass and bare ground	PRIMARY COVER: Sandberg bluegrass ( <i>Poa secunda</i> ); SECONDARY COVER: bare ground	26,028 (18%) ▲	37,938 (8%) ▼	<b>63,965 (11%)</b>
Bare ground/ephemeral species	PRIMARY COVER: Bare ground (roads, walkways) or areas of transitional/variable annual communities	13,966 (10%) ◆	33,693 (7%) ◆	<b>47,659 (8%)</b>
Sagebrush and bare ground	PRIMARY COVER: sagebrush ( <i>Artemisia tridentata</i> var. <i>wyomingensis</i> ); SECONDARY COVER: bare ground, soil crust, non-photosynthetic vegetation	26,667 (19%) ▲	15,402 (3%) ▼	42,069 (7%)
Winterfat and bare ground or Sandberg bluegrass	PRIMARY COVER: Winterfat ( <i>Krascheninnikovia lanata</i> ); SECONDARY COVER: Sandberg bluegrass, bare ground, soil crust (high percentage of interspace)	10,175 (7%) ◆	26,876 (6%) ◆	37,051 (6%)
Rabbitbrush and bare ground	PRIMARY COVER: Yellow rabbitbrush ( <i>Chrysothamnus viscidiflorus</i> ); SECONDARY COVER: Sandberg bluegrass, bare ground, soil crust	10,345 (7%) ▲	8,905 (2%) ◆	19,251 (3%)
Forage kochia	PRIMARY COVER: Forage kochia ( <i>Bassia prostrata</i> ), likely a monoculture; SECONDARY COVER: bare ground, soil crust	2,099 (1%) ◆	15,958 (3%) ◆	18,057 (3%)
Shadscale and bare ground	PRIMARY COVER: Shadscale ( <i>Atriplex confertifolia</i> ); SECONDARY COVER: bare ground and soil crust	3,925 (3%) ◆	12,430 (3%) ◆	16,355 (3%)

<b>Vegetation Class</b>	<b>Vegetation Class Description</b>	<b>Acres of Vegetation Class within the OCTC</b>	<b>Acres of Vegetation Class within the NCA outside the OCTC</b>	<b>Total acres of vegetation class within the NCA</b>
Perennial grass and exotic annual mix	PRIMARY COVER: Sandberg bluegrass or other sparse perennial bunchgrasses and exotic annuals, including annual mustards and Russian thistle	820 (1%) ♦	5,531 (1%) ♦	6,351 (1%)
<b>Total</b>		<b>142582 (24%)</b>	<b>457835 (76%)</b>	<b>600417 (100%)</b>

## Vegetation Classification (2016)

Orchard Combat Training Center and Morley Nelson Snake River Birds of Prey National Conservation Area, Idaho



### Legend

OCTC and Proposed Simco Training Area

NCA Boundary

### Vegetation Class (2016)

PERENNIAL GRASS (NOT POSE)

RABBITBRUSH AND BARE GROUND

WINTERFAT AND BARE GROUND

FORAGE KOCHIA

SANDBERG BLUEGRASS AND EXOTIC ANNUALS

BARE GROUND/TRANSITIONAL COMMUNITY

SHADSCALE AND BAREGROUND

EXOTIC ANNUALS (MUSTARDS AND RUSSIAN THISTLE)

CHEATGRASS

SANDBERG BLUEGRASS AND BARE GROUND

WINTERFAT AND SANDBERG BLUEGRASS

SAGEBRUSH AND BARE GROUND

SHRUB AND CHEATGRASS

The USDA-FSA Aerial Photography Field office asks to be credited in derived products.

UTM Zone 11 North Meters  
World Geodetic System 1984  
Natural Resources, Environmental Management Office  
Idaho Army National Guard  
Created: Monday, November 15, 2021 by Duran, Zoe  
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Map 1. Vegetation class within and adjacent to the NCA in 2016 (Spaete et al. 2016; Enterkine et al. 2018).

## Vegetation Trends: 1990-2019

### **Data Sources**

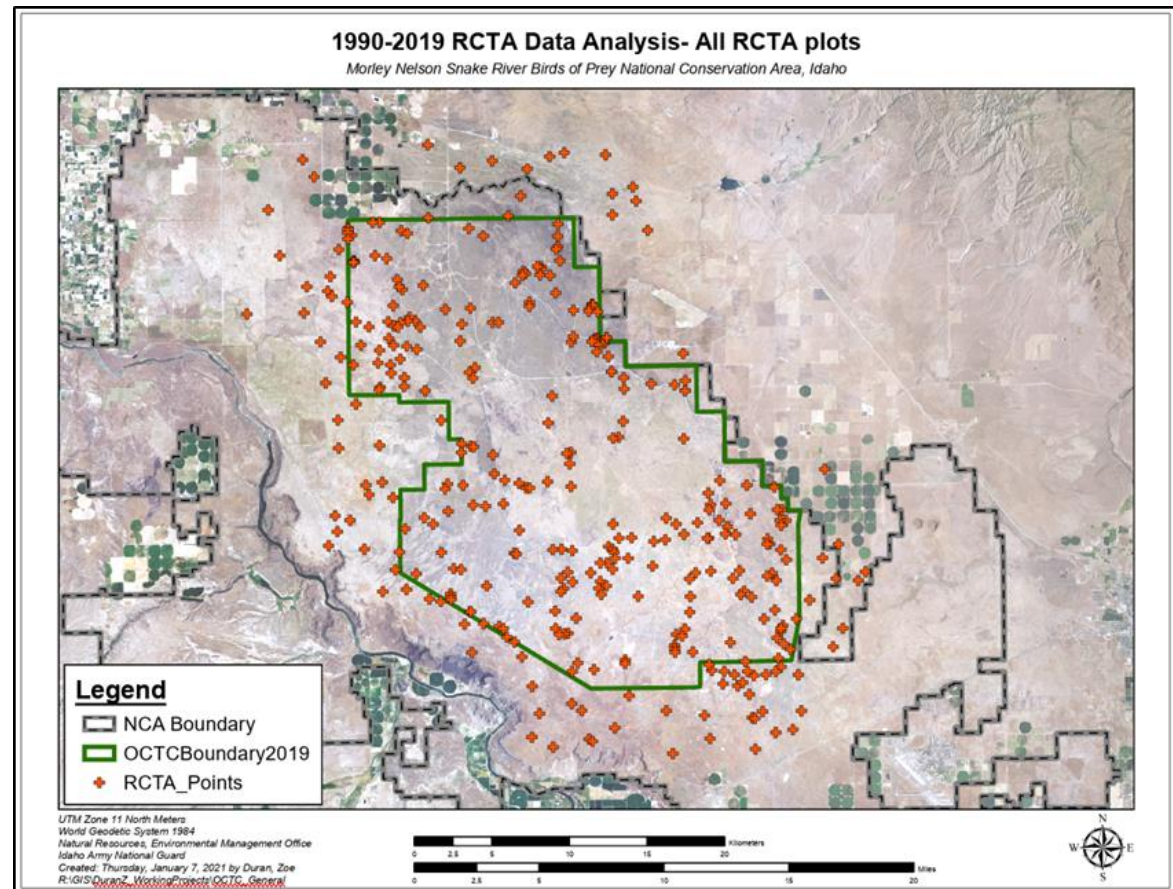
**RCTA**- The Idaho Army National Guard (IDARNG) has been collecting vegetation trend data within and directly outside the Orchard Combat Training Center (OCTC) for several decades. Line-point-intercept (LPI) and belt density data have been collected by IDARNG technicians following the Land Condition-Trend Analysis (LCTA), now Range Condition-Trend Analysis (RCTA), field method protocol (Tazik et al., 1992).

### **All Plots – Total Vegetation Cover and Native vs. Exotic Cover**

This analysis explores overall annual trend in total vegetation cover (all species) from 1990-2019 across all plots (n=354). Trends are presented in three ways: total vegetation, exotic vegetation, and native vegetation in percent cover.

#### *Map 2; Graph 1*

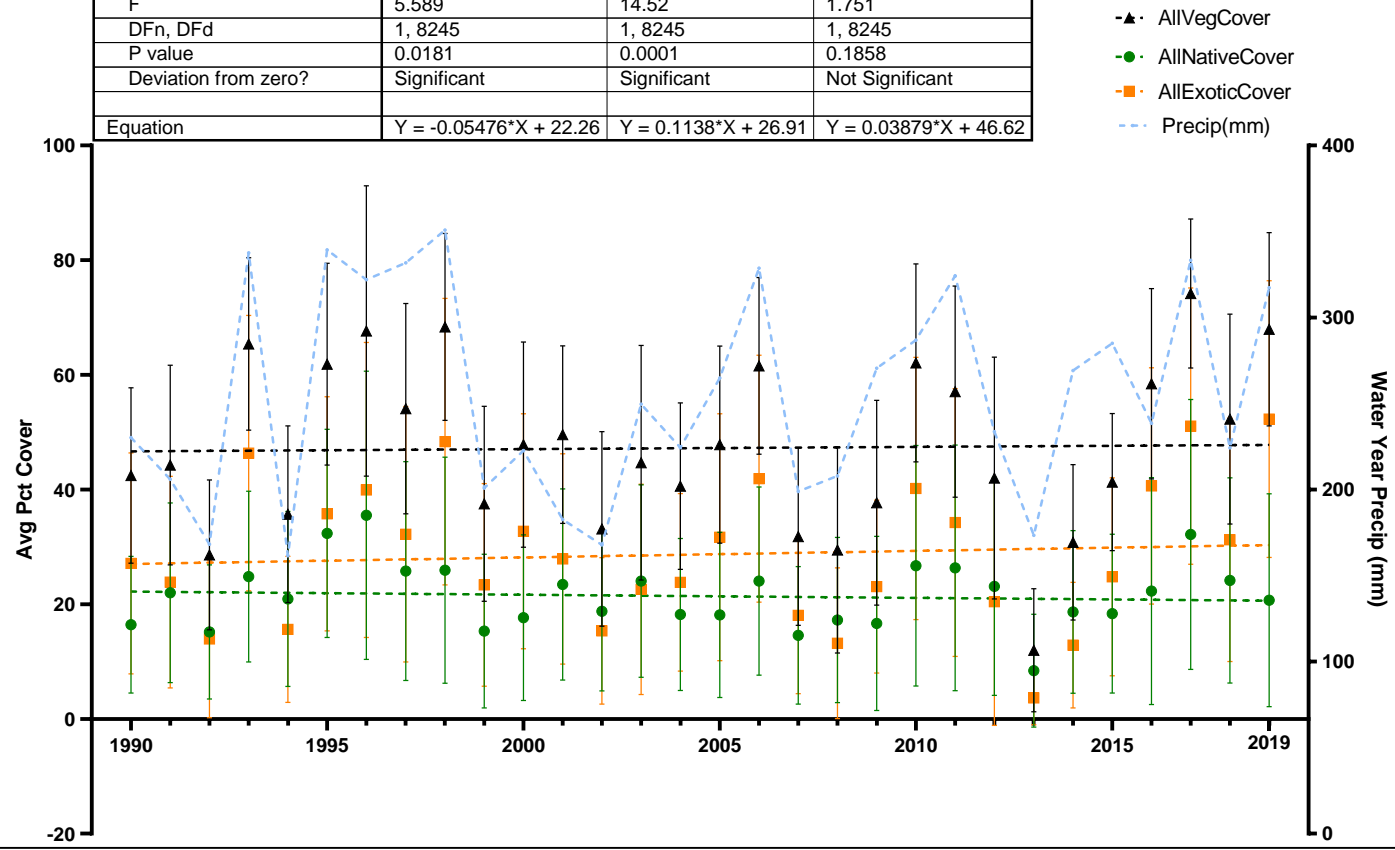
- Total vegetation cover (all species) has **not changed significantly** over time (black triangles)
  - $y = 0.03879 * x + 46.62$
  - $p = 0.1858$
- Native vegetation cover has **decreased significantly** over time at an annual rate of **-0.05%** (green circles)
  - $y = -0.05476 * x + 22.26$
  - $p = 0.0181$
- Exotic vegetation cover (nonnative species) has **increased significantly** over time at an annual rate of **0.11%** (orange squares)
  - $y = 0.1138 * x + 26.91$
  - $p = 0.0001$



**Map 2. All RCTA plots (n = 354)**

# Native vs. Exotic vs. All Veg- All Plots

	AllNativeCover	AllExoticCover	AllVegCover
Is slope significantly non-zero?			
F	5.589	14.52	1.751
DFn, DFd	1, 8245	1, 8245	1, 8245
P value	0.0181	0.0001	0.1858
Deviation from zero?	Significant	Significant	Not Significant
Equation	$Y = -0.05476 * X + 22.26$	$Y = 0.1138 * X + 26.91$	$Y = 0.03879 * X + 46.62$



Graph 1. All vegetation, native and exotic vegetation cover across all plots 1990-2019.

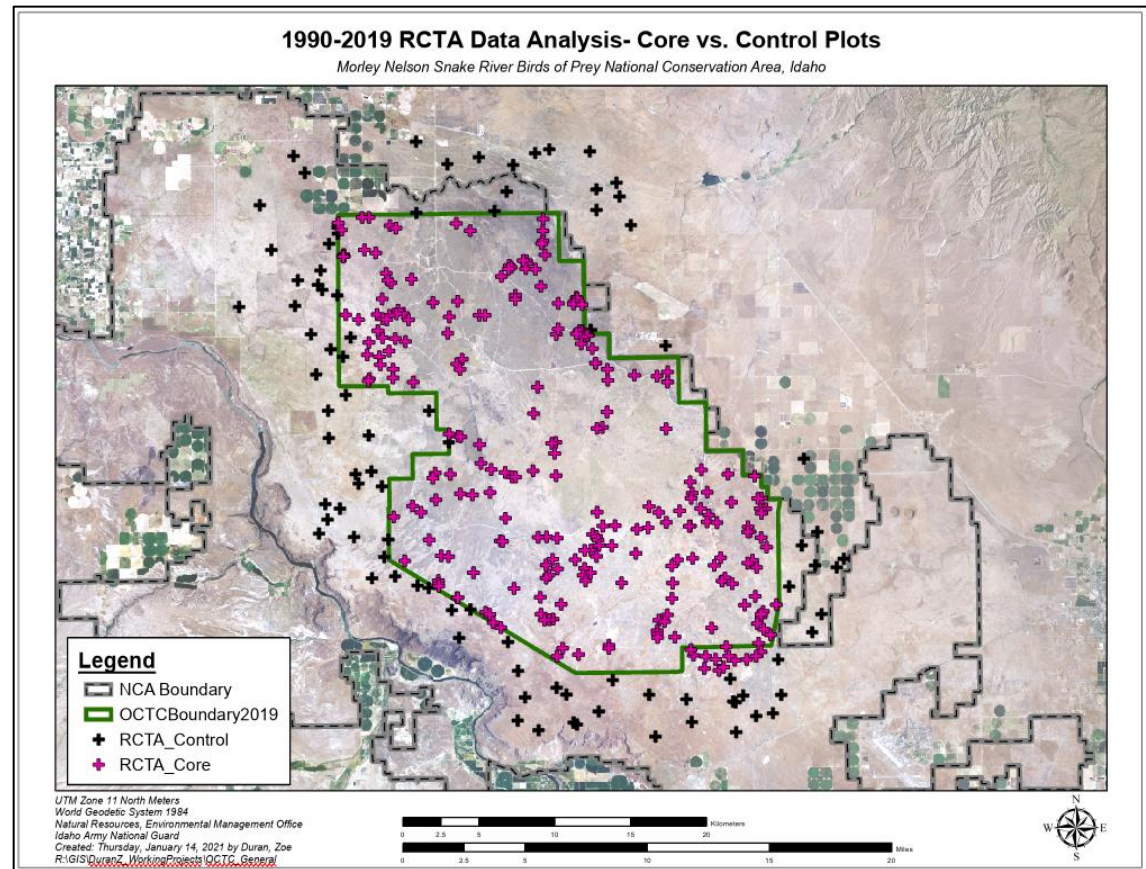


### OCTC vs. NCA (outside OCTC) – Total Vegetation Cover

This analysis explores overall annual trend in total vegetation cover (all species) from 1990-2019 on plots within the OCTC (i.e., “Core”) (n=259) and plots outside the OCTC, mostly within the Birds of Prey NCA (i.e., “Control”) (n=95).

#### Map 3; Graph 2

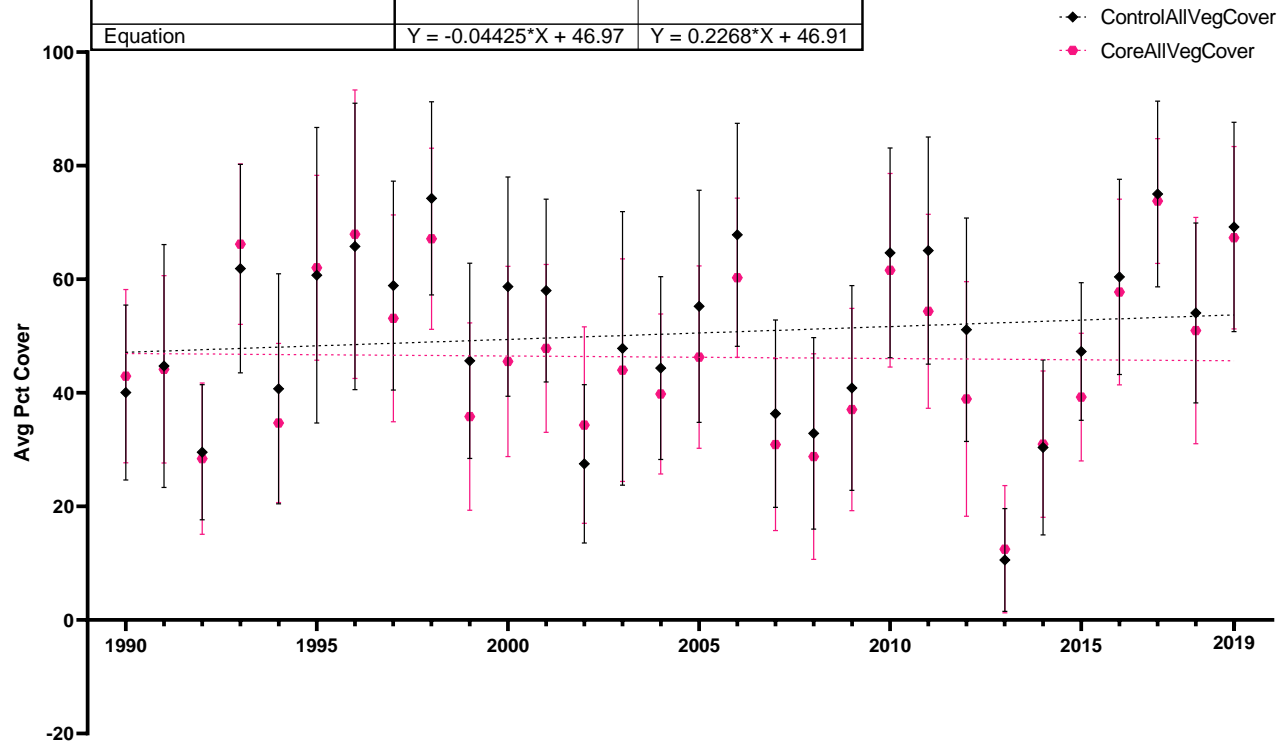
- Total vegetation cover (all species) within the OCTC (Core plots) has **not changed significantly** over time (pink circles).
  - $y = -0.04425 * x + 46.97$
  - $p = 0.1756$
- Total vegetation cover (all species) outside the OCTC (Control plots) has **increased significantly** over time at an annual rate of **0.23%** (black diamonds).
  - $y = 0.2268 * x + 46.91$
  - $p = 0.0007$



Map 3. Within the OCTC (i.e., “Core”) plots (n=259) and outside the OCTC (i.e., “Control”) plots (n = 95).

## Control vs. Core- All Veg Types

	CoreAllVegCover	ControlAllVegCover
Is slope significantly non-zero?		
F	1.835	11.50
DFn, DFd	1, 6593	1, 1650
P value	0.1756	0.0007
Deviation from zero?	Not Significant	Significant
Equation	$Y = -0.04425 * X + 46.97$	$Y = 0.2268 * X + 46.91$



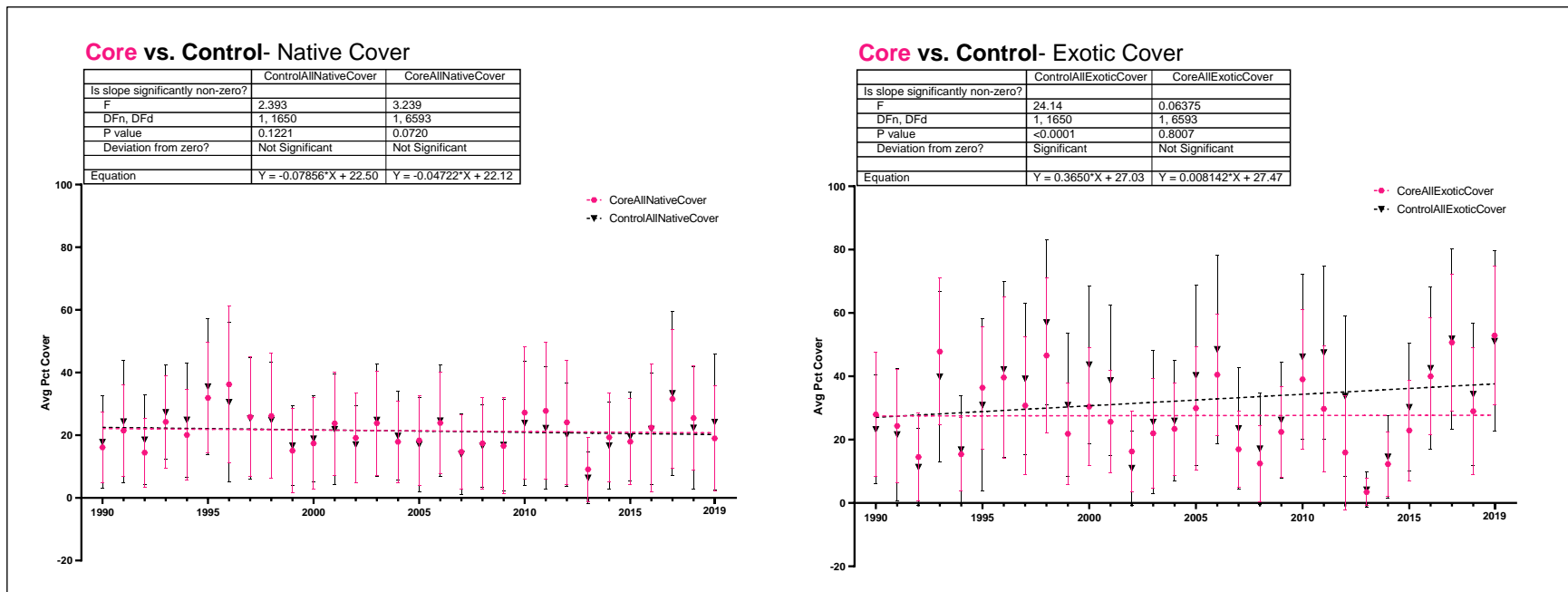
Graph 2. All vegetation cover at OCTC (“Core”) and outside the OCTC (“Control”) plots 1990-2019.

### OCTC vs. NCA (outside OCTC) – Native vs. Exotic Cover

This analysis explores overall annual trend in exotic and native vegetation cover from 1990-2019 on plots within the OCTC (i.e., “Core”) (n=259) and plots outside the OCTC, mostly within the Birds of Prey NCA (i.e., “Control”) (n=95).

Map 3; Graph 3

- Native vegetation cover within the OCTC (Core plots) has **not changed significantly** over time (pink circles, left graph).
  - $y = -0.04722*x + 22.12$
  - $p = 0.0720$
- Native vegetation cover outside the OCTC (Control plots) has **not changed significantly** over time (black triangles, left graph).
  - $y = -0.07856*x + 22.50$
  - $p = 0.1221$
- Exotic vegetation cover within the OCTC (Core plots) has **not changed significantly** over time (pink circles, right graph).
  - $y = 0.008142*x + 27.47$
  - $p = 0.8007$
- Exotic vegetation cover outside the OCTC (Control plots) has **increased significantly** over time at an annual rate of **0.37%** (black triangles, right graph).
  - $y = 0.3650*x + 27.03$
  - $p < 0.0001$



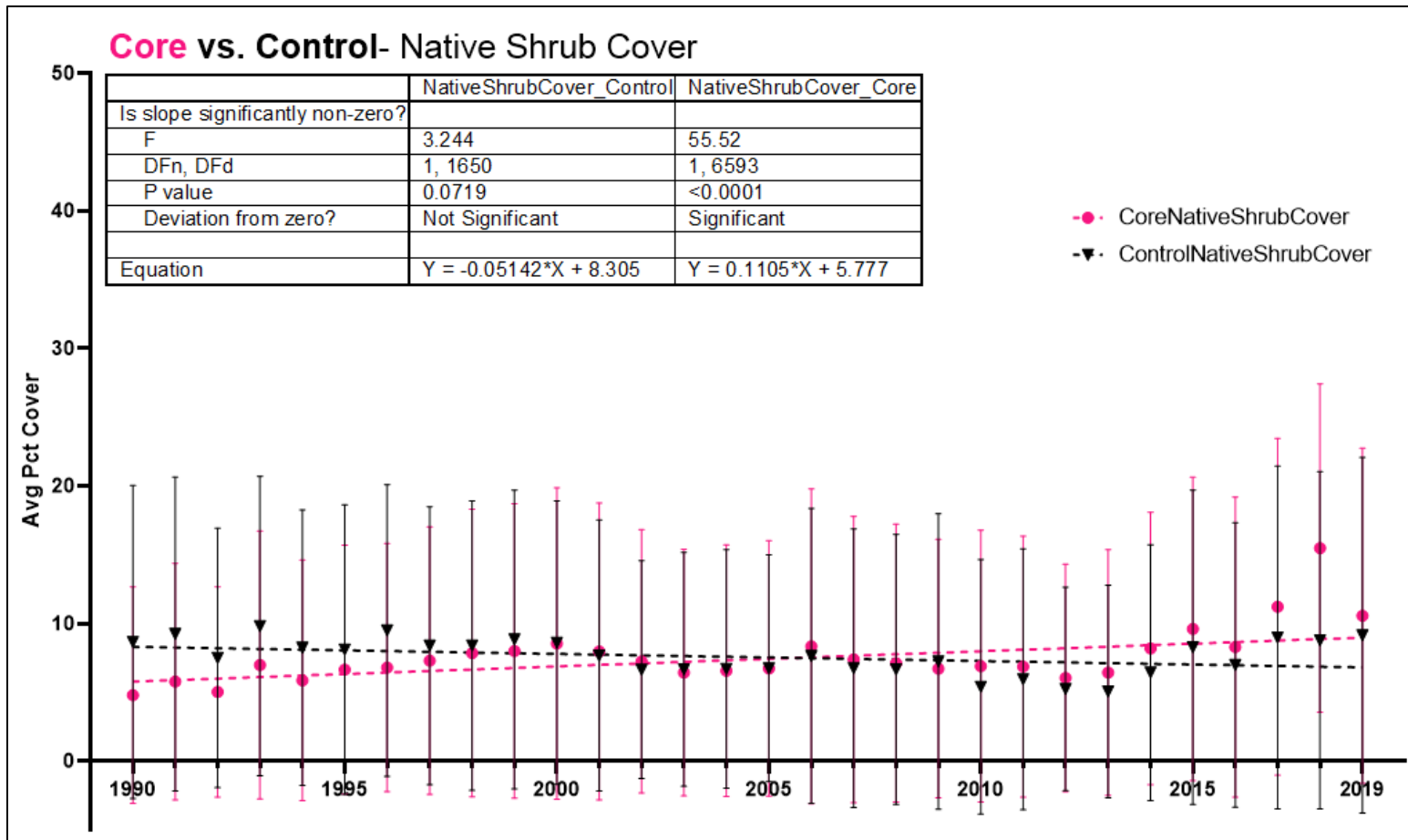
Graph 3. Native (left graph) and exotic (right graph) vegetation cover at OCTC (“Core”) and outside the OCTC (“Control”) plots 1990-2019.

### **OCTC vs. NCA (outside OCTC) – Native Shrub Cover and Density**

This analysis explores overall annual trend in native shrub cover on LPI and shrub density from belt transects from 1990-2020 on plots within the OCTC (i.e., “Core”) (n=259) and plots outside the OCTC, mostly within the Birds of Prey NCA (i.e., “Control”) (n=95). Data is displayed first as native shrub cover on the LPI plots (1990-2019) and native shrub density in shrub/m<sup>2</sup> on associated belt transects (1993-2020). Density plots have

*Map 3, Graph 4 and Graph 5*

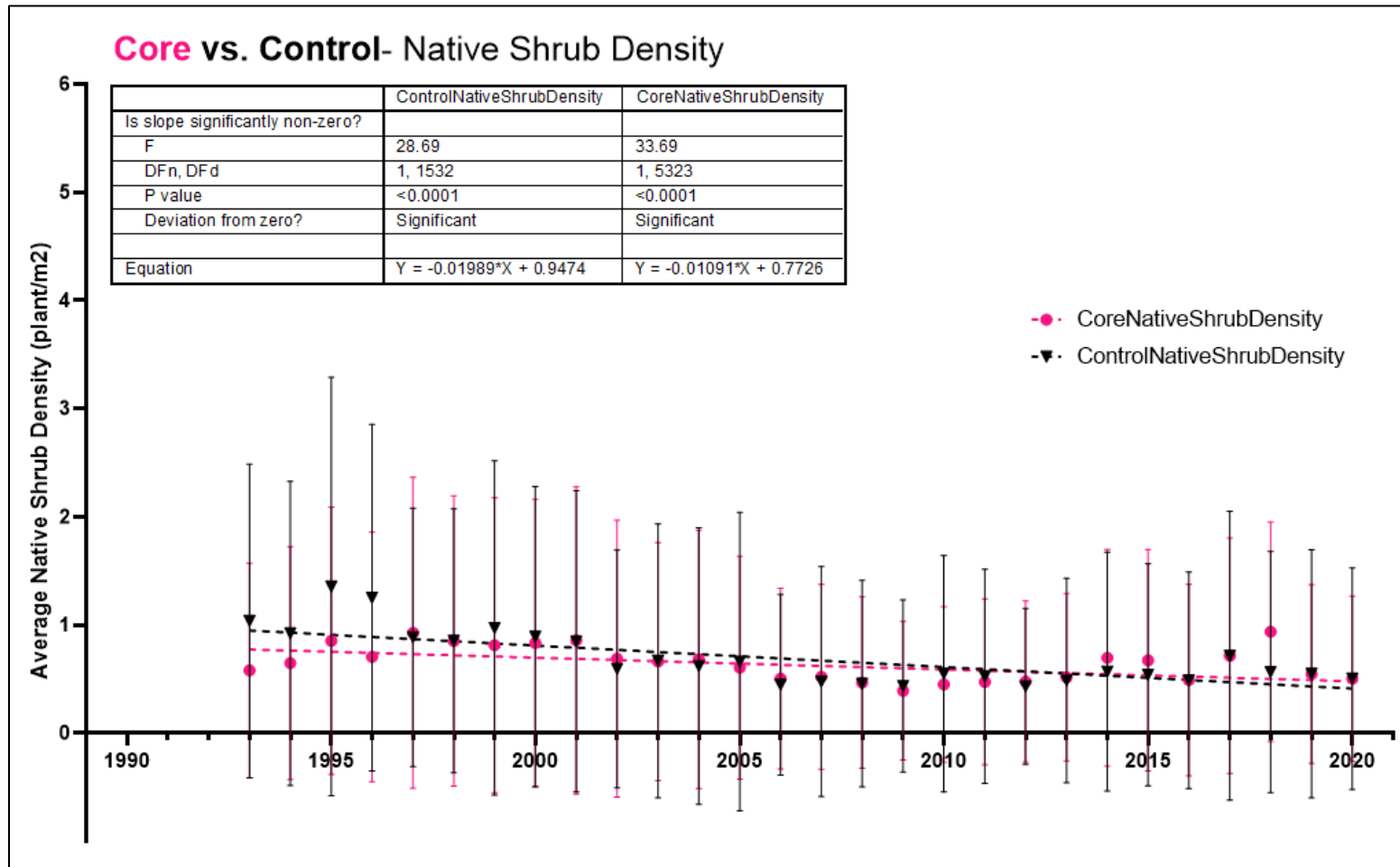
- Native shrub cover (LPI, 1990-2019)
  - Native shrub cover within the OCTC (Core plots) has **increased significantly** over time (pink circles).
    - $y = 0.1105 * x + 5.777$
    - $p < 0.0001$
  - Native shrub cover outside the OCTC (Control plots) has **not changed significantly** over time (black triangles).
    - $y = -0.05142 * x + 8.305$
    - $p = 0.0719$



Graph 4. Native shrub cover at OCTC (“Core”) and outside the OCTC (“Control”) LPI plots 1990-2019.

- Native shrub density (belt transects, 1993-2020)
  - Native shrub density within the OCTC (Core plots) has **decreased significantly** over time (pink circles).
    - $y = -0.01091 * x + 0.7726$
    - $p < 0.0001$
  - Native shrub cover outside the OCTC (Control plots) has **decreased significantly** over time (black triangles).
    - $y = -0.01989 * x + 0.9474$

- $p < 0.0001$
- Native shrub density has decreased at a **significantly higher rate** (i.e., greater slope) ( $F_{(1,6855)}=5.174$ ,  $p=0.0230$ ) on plots outside of the OCTC than those within the OCTC at a **rate of -0.02 plants per year**, approximately twice the rate as OCTC plots.



Graph 5. Native shrub density (plant/m<sup>2</sup>) at OCTC ("Core") and outside the OCTC ("Control") LPI belt transect plots 1993-2020.

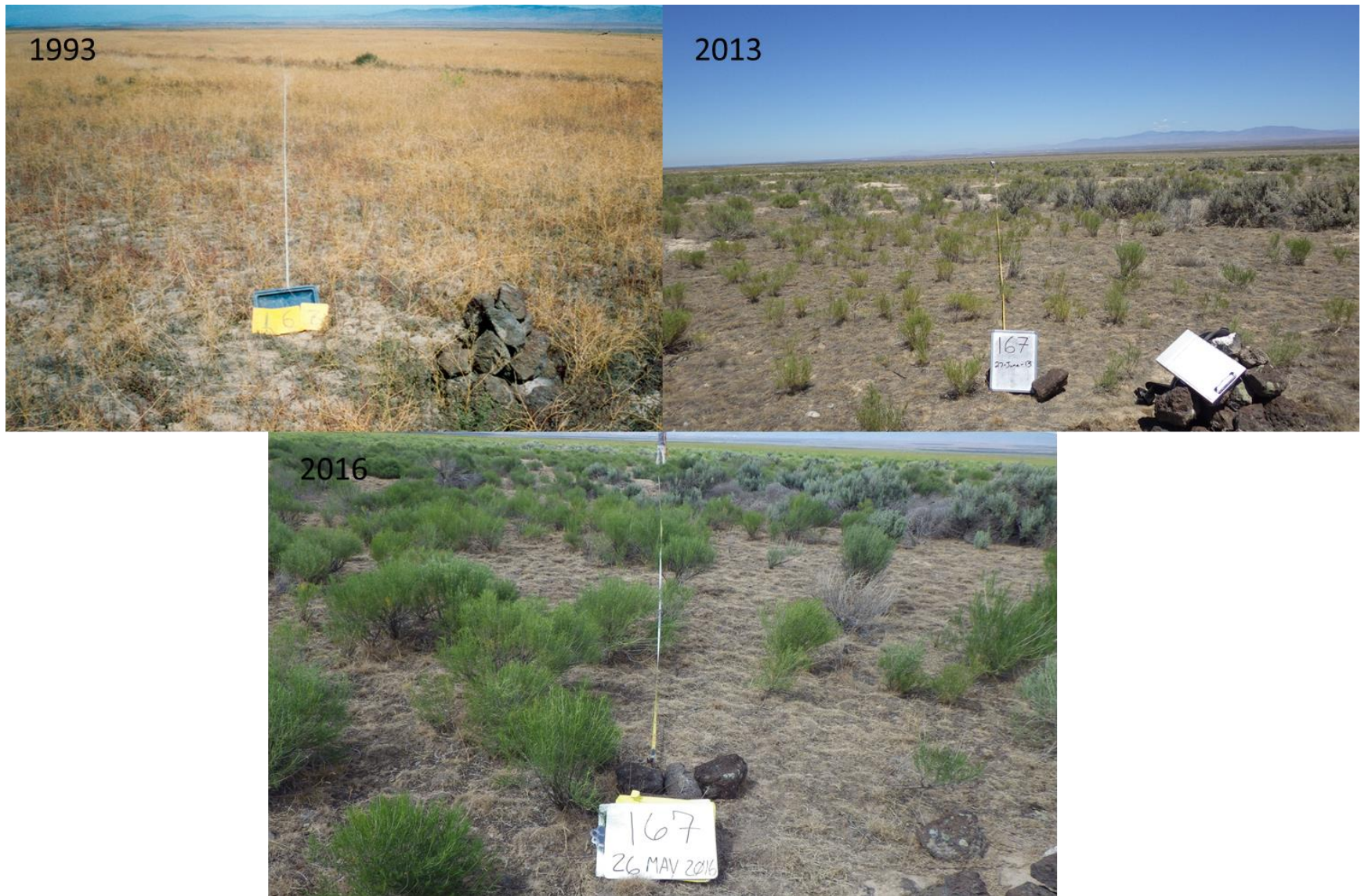


Figure 1. Example RCTA plot showing shrub increase from 1993 (top left), 2013 (top right) and 2016 (bottom center).

## Wildland Fire

### Data Sources

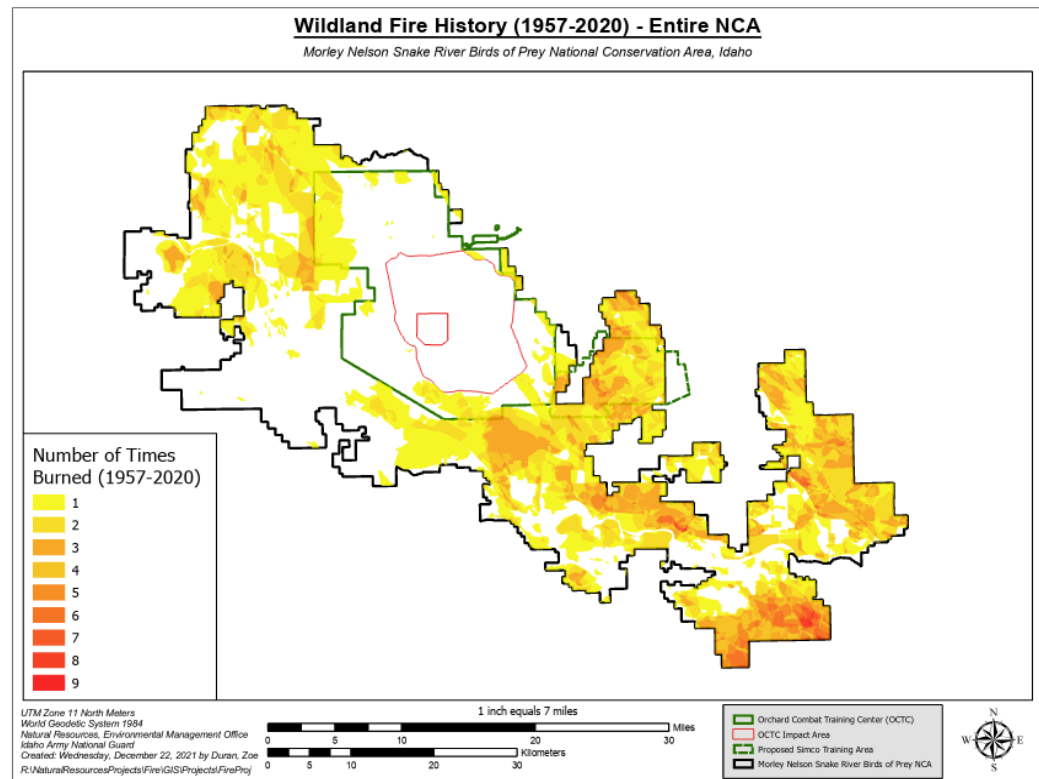
Wildland fire data used in this analysis is a GIS feature layer obtained by the IDARNG from the BLM Four Rivers Field Office (FRFO) on an annual basis (USBLM 2020 *unpublished data*). This layer contains all documented wildland fires within the FRFO from 1957-2020 (most recent layer), including those that occurred within the OCTC. The Impact Area within the OCTC, an area where live-fire training occurs, experiences frequent small fires annually associated with live-fire training, as is its designed purpose. For the purposes of this analysis, fires occurring within the 53,486-acre Impact Area were eliminated from yearly totals as they represent small, controlled burns.

### Entire NCA (with OCTC)

This analysis explores overall acres burned to-date, wildland fire frequency and burned acres trend over time from 1957-within the entire NCA, including the OCTC, but not including the OCTC Impact Area. Trends are presented in two ways: total acres burned per year and number of fires each year.

### Total Acres Burned

- Total acres burned within the entire NCA (including the OCTC) = **320,674**
  - From 1957 to 2020, 320,674 acres of the NCA has burned at least once. This equates to **74%** of the entire NCA acreage (431,387 acres).
  - Just under half (40%) of the entire NCA has burned multiple times (more than once).
- Acreage by number of times burned:
  - 0 = 110,713 (26%)
  - 1 = 150,113 (35%)
    - i.e., Since 1957, 35% of the NCA has burned just one time.
  - 2 = 91,481 (21%)
  - 3 = 45,772 (11%)
  - 4 = 19,195 (4%)
  - 5 = 8,851 (2%)
  - 6 = 4,095 (<1%)
  - 7 = 708 (<1%)

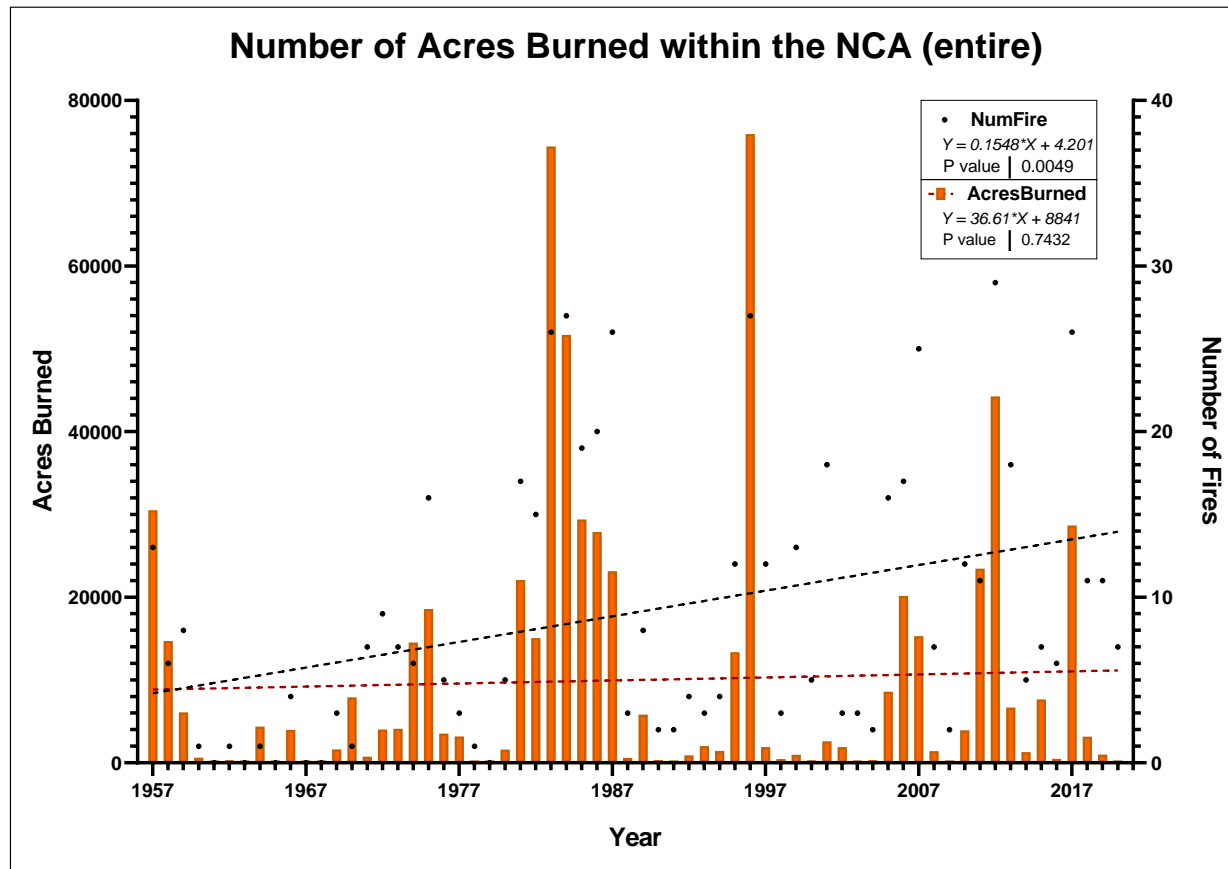




- 8 = 415 (<1%)
- 9 = 46 (<1%)

### Wildland Fire Trend

- Within the entire NCA, the **number of acres burned has increased, though not significantly**, from 1957-2020
  - $y = 36.61x + 8841$
  - $p = 0.7432$
- Within the entire NCA, the **number of fires each year has increased significantly** from 1957-2020
  - $y = 0.1548x + 4.201$
  - $p = 0.0049$



## OCTC

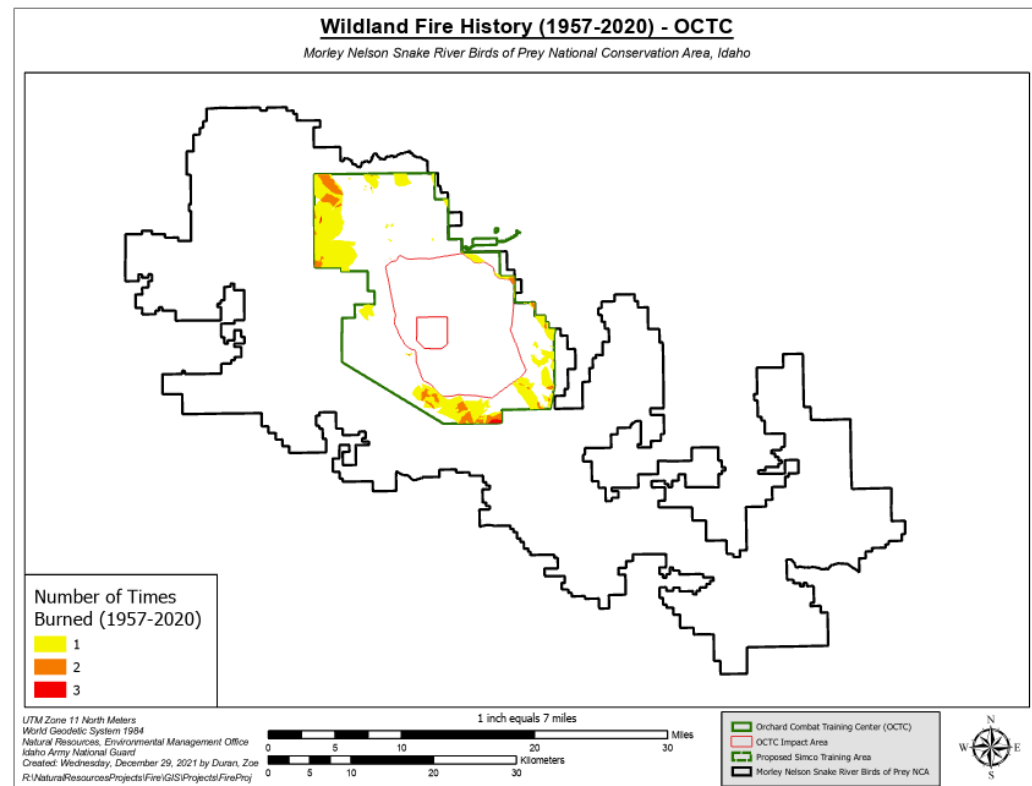
This analysis explores overall acres burned to-date, wildland fire frequency and burned acres trend over time from 1957-within the OCTC, not including the OCTC Impact Area. Trends are presented in two ways: total acres burned per year and number of fires each year.

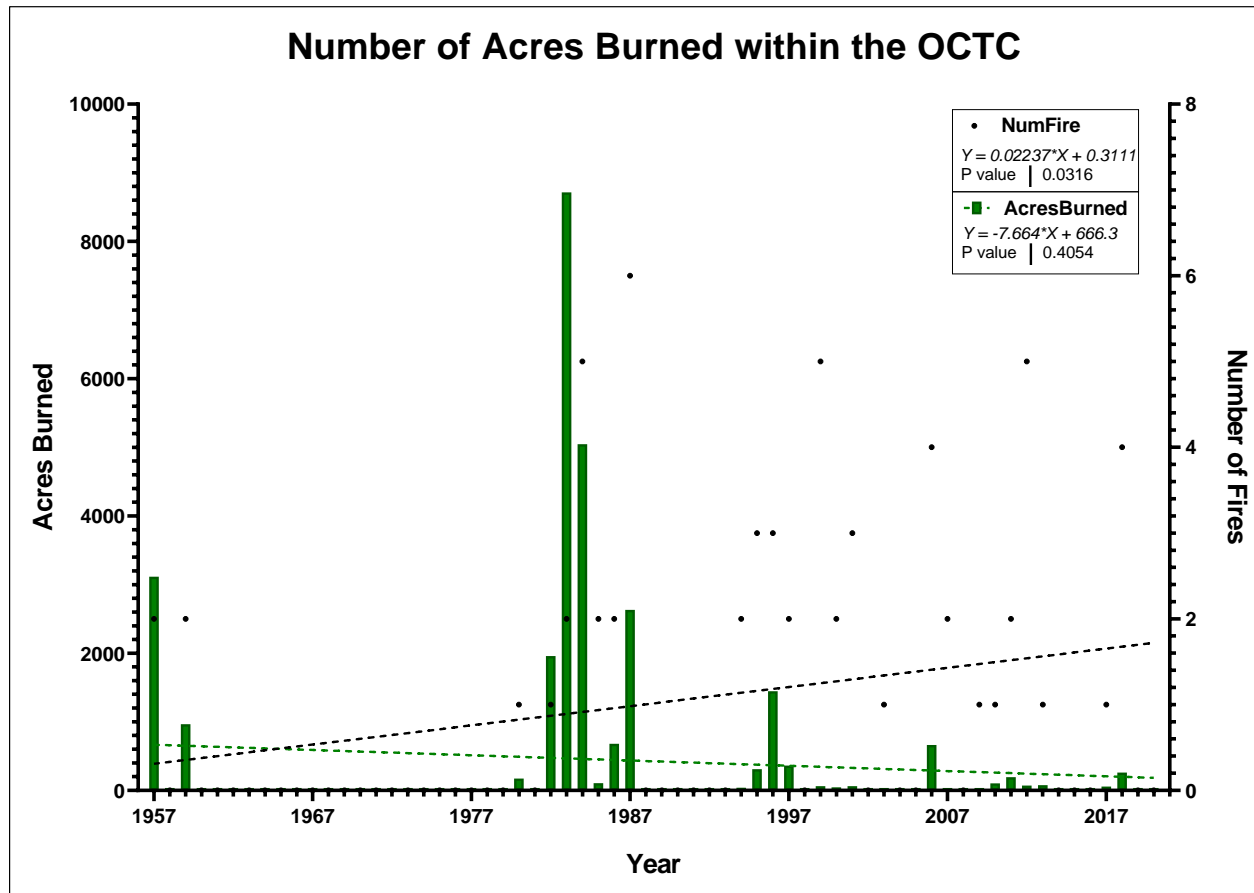
### Total Acres Burned

- Total acres burned within the OCTC = **23,196**
  - From 1957 to 2020, 23,196 acres of the OCTC has burned at least once. This equates to **26%** of the entire OCTC acreage (88,998 acres).
  - A very small area of the OCTC (5%) has burned multiple times (more than once).
- Acreage by number of times burned:
  - 0 = 65,802 (74%)
  - 1 = 19,398 (22%)
  - 2 = 3,600 (4%)
  - 3 = 198 (<1%)

### Wildland Fire Trend

- Within the OCTC, the **number of acres burned has decreased, though not significantly** from 1957-2020
  - $y = -7.664x + 666.3$
  - $p = 0.4054$
- Within the OCTC, the **number of fires each year has increased significantly** from 1957-2020
  - $y = 0.02237x + 0.3111$
  - $p = 0.0316^*$ 
    - *\*note: this is non-significant value at  $\alpha=0.01$*





### NCA (without OCTC)

This analysis explores overall acres burned to-date, wildland fire frequency and burned acres trend over time from 1957-2020 within the NCA, not including the OCTC. Trends are presented in two ways: total acres burned per year and number of fires each year.

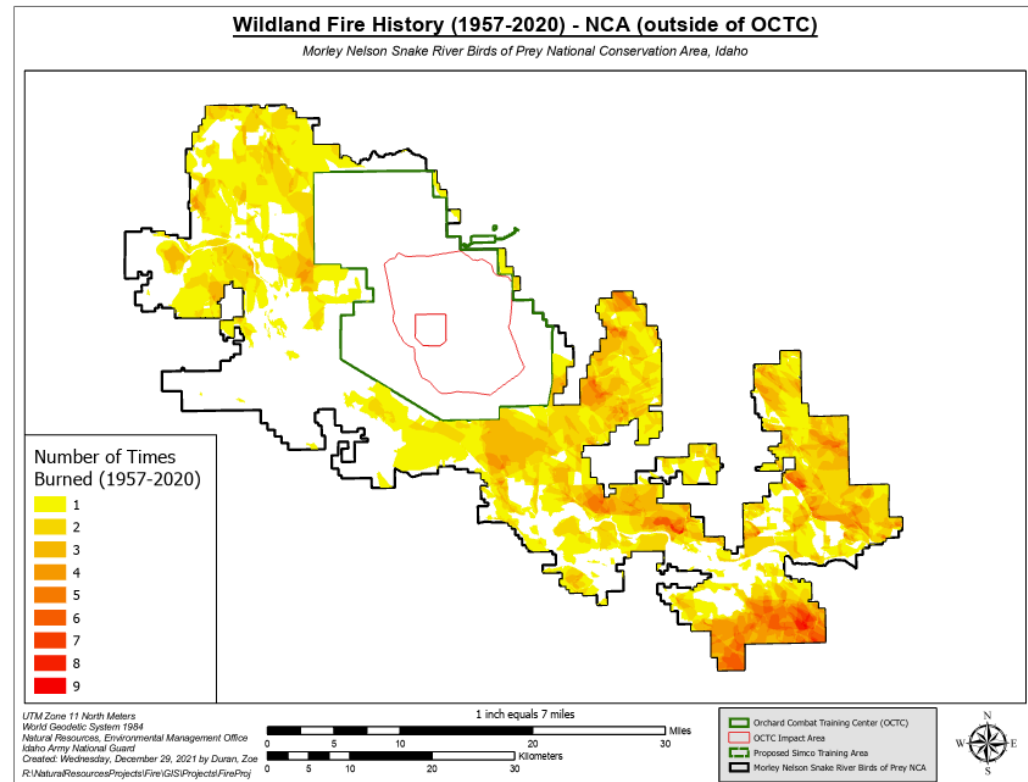
### **Total Acres Burned**

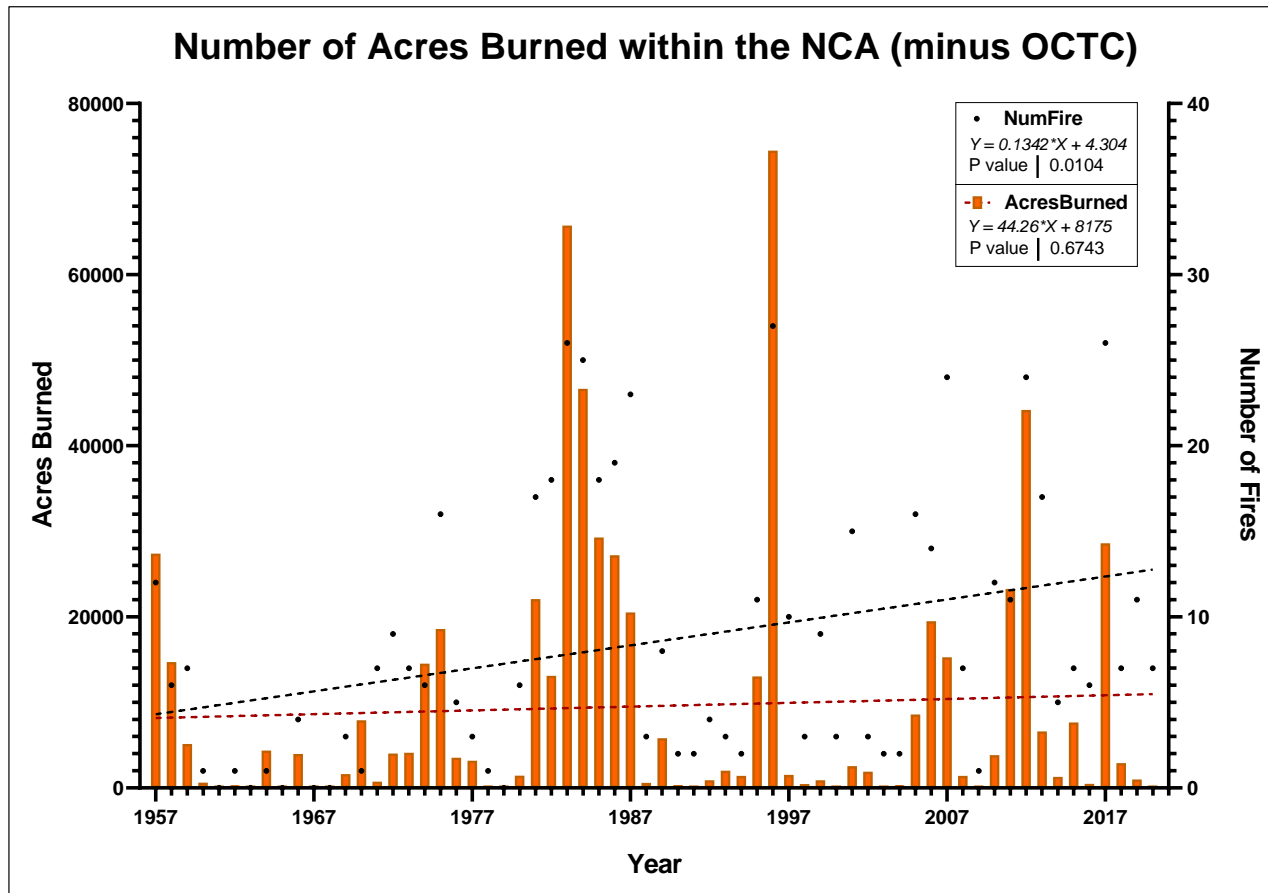
- Total acres burned within the NCA (outside of the OCTC) = **297,483**
  - From 1957 to 2020, 297,483 acres of the NCA has burned at least once. This equates to **87%** of the NCA outside of the OCTC (342,389 acres).

- Nearly half of the NCA outside of the OCTC (49%) has burned multiple times (more than once).
- Acreage by number of times burned:
  - 0 = 44,906 (13%)
  - 1 = 130,720 (38%)
  - 2 = 87,880 (26%)
  - 3 = 45,574 (13%)
  - 4 = 19,195 (6%)
  - 5 = 8,850 (3%)
  - 6 = 4,095 (1%)
  - 7 = 707 (<1%)
  - 8 = 415 (<1%)
  - 9 = 46 (<1%)

### Wildland Fire Trend

- Within the NCA outside of the OCTC, the **number of acres burned has increased, though not significantly**, from 1957-2020
  - $y = 44.26x + 8175$
  - $p = 0.6743$
- Within the NCA outside of the OCTC, the **number of fires each year has increased significantly** from 1957-2020
  - $y = 0.1342x + 4.304$
  - $p = 0.0104^*$ 
    - *\*note: this is non-significant value at  $\alpha=0.01$*





### Proposed Simco Training Area (STA)

This analysis explores overall acres burned to-date, wildland fire frequency and burned acres trend over time from 1957-2020 within the proposed Simco Training Area. Trends are presented in two ways: total acres burned per year and number of fires each year.

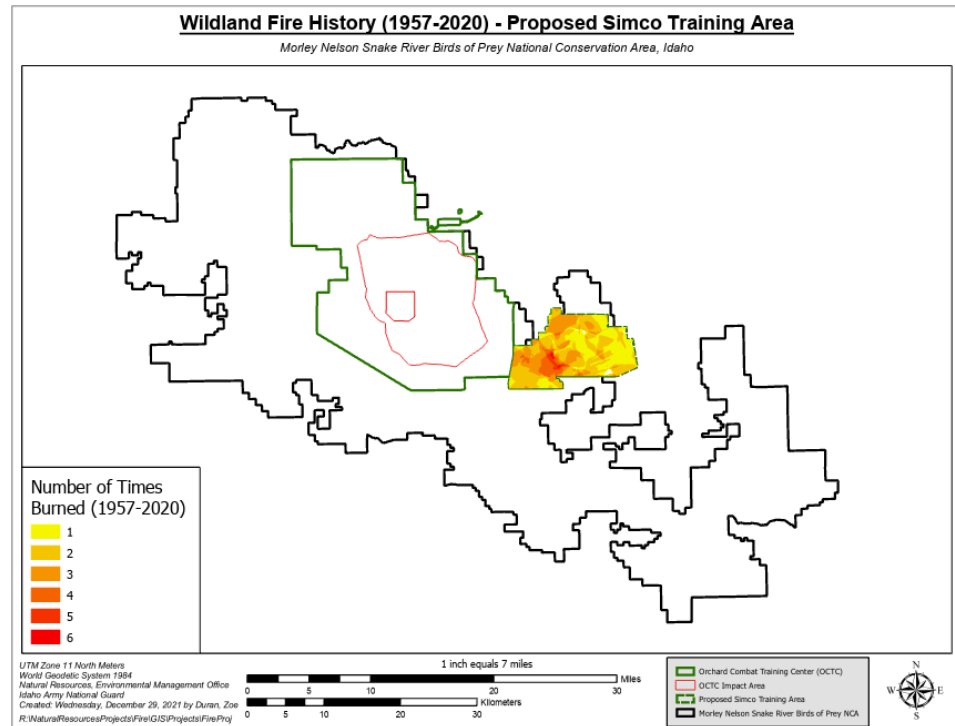
#### **Total Acres Burned**

- Total acres burned within the proposed Simco Training Area = **29,164**
  - From 1957 to 2020, 29,164 acres of the proposed Simco Training Area has burned at least once. This equates to **99%** of the entire area (28,430 acres).

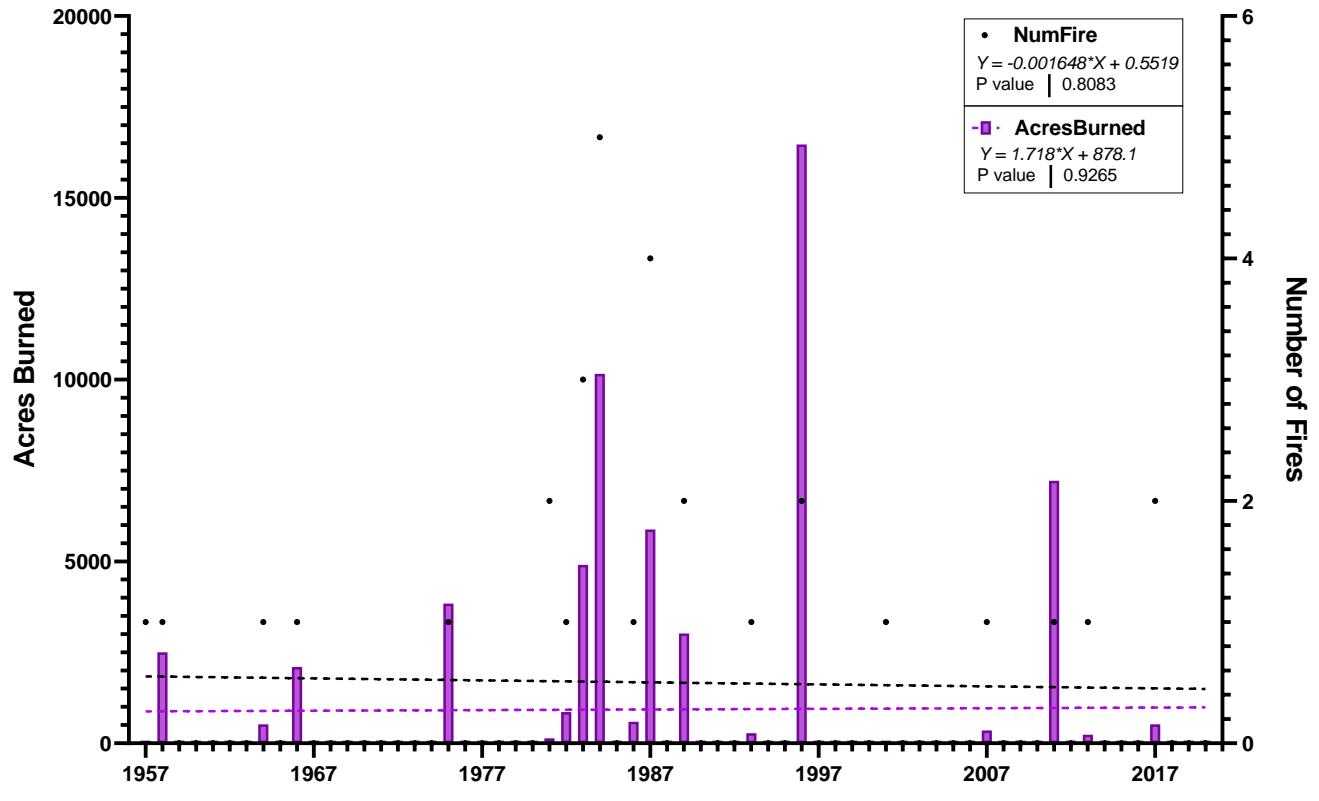
- The majority of the area (71%) has burned multiple times (more than once).
- Acreage by number of times burned:
  - 0 = 266 (1%)
  - 1 = 8,117 (29%)
  - 2 = 11,383 (40%)
  - 3 = 6,438 (23%)
  - 4 = 1,741 (6%)
  - 5 = 406 (1%)
  - 6 = 78 (<1%)

### Wildland Fire Trend

- Within the proposed Simco Training Area, the **number of acres burned has increased, though not significantly**, from 1957-2020
  - $y = 1.718x + 878.1$
  - $p = 0.9265$
- Within the proposed Simco Training Area, the **number of fires each year has decreased, though not significantly**, from 1957-2020
  - $y = -0.001648x + 0.5519$
  - $p = 0.8083$



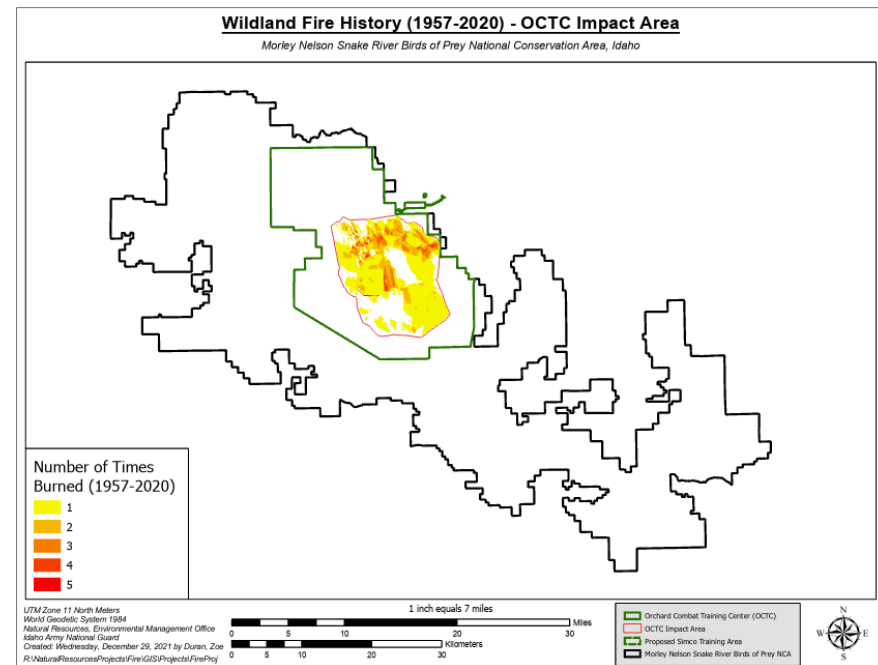
## Number of Acres Burned within the Simco Training Area



## Summary of Acres Burned (OCTC vs. NCA)

### Key observations:

- The total area burned at least once within the OCTC from 1957-2020 is **disproportionately lower** than the entire NCA.
  - If the OCTC were to have burned proportionately to the rest of the NCA, we would expect that 74% of the OCTC would have also burned at least once (Table 2). However, only 26% of the OCTC has burned, which is **48% (or 42,719 acres) less than predicted**. On the other hand, the total area burned at least once within the NCA outside of the OCTC is **disproportionately higher** (87%).
  - This remains true even when the Impact area is considered. If, hypothetically, the entire OCTC Impact Area (53,486 acres) has burned at least once since 1957, then the total acreage burned in the OCTC would increase to 76,682 acres and 374,160 acres in the entire NCA. If the OCTC were to have burned proportionately to the rest of the NCA, we would expect that 77% of the OCTC would have also burned at least once. However, even when considering the Impact Area, only 54% of the OCTC would have burned, which is **23% (or 32,771 acres) less than predicted**.
    - *NOTE: the assumption that the entire Impact Area has burned since 1957 is not supported by best available GIS data, though data may not include small burns (<1 acre) not collected by BLM or mapped by the IDARNG. The best-available estimate from BLM and IDARNG data is that 36,154 acres (68%) of the Impact Area has burned since 1957.*





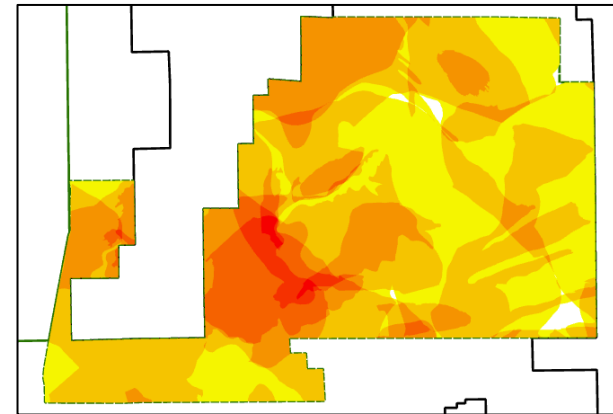
**Table 2. Number of acres burned categorized by burn frequency (i.e., number of overlapping burns) within the entire NCA, broken down by OCTC and the NCA outside the OCTC. Note: acreages (including total acreages for percent) do not include the OCTC Impact Area.**

Number of Times Burned	Acres within the OCTC	% of OCTC	Acres within the NCA (outside of the OCTC)	% of NCA (outside of the OCTC)	Total acres in the entire NCA	Percentage of entire NCA
0	65,802	74%	44,906	13%	<b>110,713</b>	<b>26%</b>
1	19,398	22%	130,720	38%	<b>150,113</b>	<b>35%</b>
2	3,600	4%	87,880	26%	<b>91,481</b>	<b>21%</b>
3	198	<1%	45,574	13%	<b>45,772</b>	<b>11%</b>
4	0	0%	19,195	4%	<b>19,195</b>	<b>4%</b>
5	0	0%	8,850	2%	<b>8,851</b>	<b>2%</b>
6	0	0%	4,095	<1%	<b>4,095</b>	<b>&lt;1%</b>
7	0	0%	707	<1%	<b>708</b>	<b>&lt;1%</b>
8	0	0%	415	<1%	<b>415</b>	<b>&lt;1%</b>
9	0	0%	46	<1%	<b>46</b>	<b>&lt;1%</b>
<b>Total burned (at least one time)</b>	<b>23,196</b>	<b>26%</b>	<b>297,483</b>	<b>87%</b>	<b><u>320,674</u></b>	<b><u>74%</u></b>

## Summary of Acres Burned (STA vs. NCA)

Key observations:

- The total area burned at least once on NCA lands within the proposed Simco Training Area from 1957-2020 (20,681 acres) is **disproportionately higher** than the entire NCA.
  - If the NCA lands within the proposed Simco Training Area were to have burned proportionately to the rest of the NCA, we would expect 74% of the proposed training area to have also burned once. However, 99% of the proposed training area has burned, which is **25% (or 5,215 acres) higher than predicted.**



## References

Enterkine J., Gallagher, M., Glenn, N. and Spaete, L. 2018. Vegetation Mapping in a Dryland Ecosystem Using Multi-temporal Sentinel-2 Imagery and Ensemble Learning.

Spaete, L.P., N.F. Glenn, and C.W. Baun. 2016. Morley Nelson Snake River Birds of Prey National Conservation Area 2013 RapidEye 7m Landcover Classification. Boise Center Aerospace Laboratory Data (BCAL), Boise State University, Idaho.

Tazik, D.J., Warren, S.D., Diersing, V.E., Shaw, R.B., Brozka, R.J., Badgley, C.F., and W.R. Whitworth. 1992. U.S. Army land condition-trend analysis (LCTA) plot inventory field methods. U.S. Army Corps of Engineers, USACERL Technical Report N-92/03, 62 pp.

U.S. Bureau of Land Management (USBLM). 2020. Four Rivers Field Office Wildland Fire Data 1957-2020, *unpublished data*. BLM Boise District Office. Boise, ID.



- 1 **Appendix D**
- 2 **Public and Agency Scoping Information**

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# **Public Scoping Documentation**





# **2021 Materials**



# Simco Training Area Public and Agency Scoping Summary

Agencies Comments: A project summary letter and invitation to comment was sent to all local, state, and federal agencies on March 2, 2021 and on March 9, 2018 for project review and comment. In addition to the letter, additional face to face coordination/consultation was also undertaken (see below).

- FWS- Informal consultation was initiated in 2015. Surveys for identified species, specifically *Lepidium papilliferum* (LEPA) and *Lepidium davisii* (LEDA) were conducted for the entire proposed project area, with buffer, from 2014 through 2016. An additional LEPA stage 3 survey was also conducted in May of 2021 (Appendix H). LEPA populations and associated critical habitat were identified within the project area. As such, a biological assessment (Appendix E) was initiated in May of 2021. Informal consultation was completed on September 28, 2021 with a finding of “may affect but not adversely” and concurrence memo from USFWS on September 28, 2021 (Appendix E).
- IDL- Original lease application was submitted in 2016. At the time of the scoping period, a 2021 revision was currently being prepared based on an IDL change in the acreage and lease rate. IDARNG has a monthly coordination meeting with IDL.
- Mountain Home Highway District- The IDARNG coordinated with the Mountain Home in April of 2017 to obtain a permit to construct the crossing on Simco Road. The IDARNG obtained a permit to construct the crossing in May of 2017 (Appendix E).
- Ada, Elmore, and Owyhee County Commissioners: The IDARNG gave a presentation to the Ada County Commissioners on March 12, 2018 and Elmore County Commissioners on March 16, 2018. The Ada County Commissioners did not identify any issues with the proposed project and were in general support (see letter of support dated 30 April 2018). The Elmore County Commissioners did not identify any issues with the proposed project in general and were in general support of military operations (see letter of support dated 11 May 2018)). Wildland fire and suppression was topic of interest, as was the interaction of the Orchard Fire District with non-fire district communities in the area. This fire district issue was brought up as a potential discussion topic for future meetings.

The IDARNG and BLM briefed the Elmore County Commissioners on the updated Simco Training Area proposal 19 February 2021. Comments received were similar in nature to the 16 March 2018 meeting. The Commissioners also identified that landowners in proximity to the proposed action should be notified. The IDARNG staff added all landowners within a 1-mile radius to the interested party list (see below).

- SHPO- In July of 2020 and April 2021, the BLM and the SHPO reevaluated the application that included the additional BLM/BOR lands. They concurred with the findings that there would be no anticipated effects to historic properties within the additional acreage, providing a “No Adverse Effect” determination (Appendix E).

The IDARNG received a letter from the SHPO on 15 March 2018 requesting additional information on the project. Mr. Jake Fruhlinger and LTC Stitt met in person with the SHPO reps on 28 March 2018. They supplied the SHPO with the surveys conducted to date and a short summary of the proposed action and associated SOPs, BMPs, and mitigation actions identified by the IDARNG to date in relationship to cultural resources. SHPO had no issues with the proposed action and wanted to use this project as a national example for interagency coordination.

- **Tribal Comments 2021:** Consultation with interested Tribes is also a key component of the NEPA process. Section 106 mandates consultation with stakeholders in the identification of historic properties, including federally recognized Indian tribes. The IDARNG sent out a project summary letter to the following Tribes on March 3, 2021 to all seven southern Idaho Tribes: Shoshone-Bannock Tribes (Idaho), Fort McDermitt Paiute and Shoshone Tribes (Nevada), Confederated Tribes of Warm Springs Reservation of Oregon, Burns Paiute Tribe (Oregon), Shoshone-Paiute Tribes of the Duck Valley Indian Reservation (Nevada), and the Northern Band of the Shoshone Nation (Utah).

The BLM conducted a face-to-face meeting with the Shoshone-Paiute Tribes on May 5, 2021. They also sent letters with the same information they provide the Shoshone-Paiute Tribes to the Shoshone-Bannock Tribes and the Burns Paiute Tribe the same week.

- **Tribal Comments 2018:** Two project summary letters and invitations to comment were sent to all Southern Idaho Tribes (Shoshone-Bannock Tribes, Shoshone-Paiute Tribes, Burns Paiute and Shoshone Tribe, The Confederated Tribes of the Warm Springs, and the Northwestern Band of the Shoshone Nation) and the Nez Perce Tribe on April 18th, 2017 and March 6th, 2018 for project review and comment. In addition to the letter, additional face to face coordination/consultation was also undertaken (see below).

Tribal comments from 2021. No comments have been received from any of the Tribes to date. The IDARNG and BLM will continue to coordinate and consult with the Tribes throughout the process.

- **Public Comments 2021** - Public scoping for the proposed action was initiated in March of 2021. A project summary letter and invitation to a virtual open house was sent to the interested party list (see below) on March 2, 2021. The interested party list included 132 individual points of contact with federal and state agencies, Tribes, government officials, NGOs, and private citizens, including all residents within 1 mile of the project area. In addition, a nation-wide public notice, via social media, was issued by the BLM on March 5, 2021 and the IDARNG on March 8, 2021. Information about the project, scoping process, and timeline were included in all correspondence, including links to the IDARNG - <https://emomil.imd.idaho.gov/> (Documents for Review), and BLM website <https://go.usa.gov/xsBJZ> for additional information.

The IDARNG, in coordination with the BLM, also conducted two virtual public scoping meetings on March 17, 2021 from 2:00pm to 3:00pm and from 6:00pm to 7:00pm. The afternoon (2:00-3:00) session had 31 participants, of which 10 were not BLM or IDARNG staff. The night session had 20 participants, of which 8 were not BLM or IDARNG staff. Total public participants were 18. The Public comments were generally in line with those received in 2018. Concerns were

raised about the project’s effect on the following resource areas: wildlife, noise, toxins, fugitive dust, non-native weeds, wildfire, airspace, military training, economics, public lands, BLM ROW, infrastructure, transportation, special status species, water quality, air quality, climate change, visuals, soil erosion, and public access. A summary of the public comments and agency response are found below. Additional proposed alternatives were also identified in the comments and incorporated into the EA in Section 2.0.

- Public Comments 2018** - The IDARNG, in coordination with the BLM conducted two public scoping meetings in Ada and Elmore Counties. A project letter and invitation to an open house public meeting was sent to an interested party list supplied by the BLM on March 9, 2018 (106 individuals or groups included on the interested party list). In addition, a public notice was put in the Idaho Statesman and Mountain Home News. Public meetings were in Ada County on April 4, 2018, from 4:00pm to 7:00pm at the Wyndham Garden Boise Airport (3300 S Vista Ave, Boise, ID 83705). The second was held in Elmore County on April 5, 2018, from 4:00pm to 7:00pm at the Hampton Inn (3175 Foothills Ave, Mountain Home, ID 83647). Information about the project was also available on the IDARNG website <http://emomil.state.id.us/> (Documents for Review), or the BLM website (<https://go.usa.gov/xnhYw>). A second letter was set out to the interested parties on March 13, 2018. The letter corrected the BLM website address for online access to the project files. Table 1 summarizes the comments received to date that were used in coordination with the interdisciplinary group to develop the resource and resource use consideration matrix.

**Table 1. Summary of Issues or Concerns by Individual or Group**

Name	Date	Scoping Issues
Public Scoping Meeting Comments (April 4 and 5, 2018)		
Katie Fite	April 4, 2018	Wildlife, noise, toxics, military takeover of lands
Doug Hayes	April 4, 2018	Wildlife
Roy & Rita Galbreath	April 5, 2018	No Comment
Dale & Dee Key	April 5, 2018	No Comment
Brian & Lori Reid	April 5, 2018	No Comment
Linda Ady	April 5, 2018	Noise
Tom Ady	April 5, 2018	Noise
Mike Reid	April 5, 2018	Noise
David Patch	April 5, 2018	Noise
Cammie Patch	April 5, 2018	Noise
Cythina Reid	April 5, 2018	Noise
Donna Bennett	April 5, 2018	No Comment
George Bennett	April 5, 2018	No Comment
Jay Weaver	April 5, 2018	Fire, noise, dust, tumble weeds

<b>Name</b>	<b>Date</b>	<b>Scoping Issues</b>
<b>Written Public Comments to Date (Chronological Order)</b>		
Owyhee County Commissioners	26 March, 2018	Support of proposed action- economics, soldier readiness, national security, and emergency response.
Katie Fite	April 1, 2018	Similar to those stated on April 9, 10, and 30, 2018
Katie Fite	April 9, 2018	Similar to those stated in April 10 and April 30, 2018.
Ina Serdiu	April 10, 2018	Military training, economics, public lands
Bill Richey	April 10, 2018	Airspace, wild fire, dust, noise
Katie Fite	April 10, 2018	BLM ROW, military training, and economics.
Ada County Commissioners	April 30, 2018	Support of proposed action and sustaining the IDNG mission.
Wildlands Defense (Katie Fite)	April 30, 2018	NCA, economics, vegetation, wildlife, dust, light, health and human safety, noise, military training and airspace, infrastructure, transportation, special status species, water quality, air quality, climate change, wildland fire, VRM, and soil erosion.
Jay Weaver	April 30, 2018	Economics (property value), vegetation and invasive species, wildlife, noise, dust, wildfire, military training, public access.
Idaho Conservation League	May 1, 2018	Generally supportive- military training consistent with NCA legislation, habitat condition, birds of prey, and ROW resulting in a net benefit for the NCA.
Elmore County Commissioners	May 11, 2018	Support of proposed action- economics, soldier readiness, and emergency response.



# Simco TA Scoping Comments 2021

Person/Agency	Category	Concern	IDARNG Response	Section
Office of Species Conservation	LEPA	Primary threat to <i>Lepidium Papilliferum</i> (Slickspot Peppergrass) is wildfire and invasive nonnative plant species, among others.	These will be addressed through IDARNG fire management activities, active sagebrush and forb habitat restoration, invasive and nonnative vegetation treatment, and annual census and monitoring surveys to benefit LEPA.	3.7.1
IDFG	Biological Resources	<p>IDFG therefore recommends that the EA comprehensively analyze potential adverse effects and corresponding mitigation options for the following resources:</p> <ul style="list-style-type: none"> <li>• Big game, including pronghorn.</li> <li>• Small mammals, including pygmy rabbits.</li> <li>• Bats.</li> <li>• Migratory birds including raptors.</li> <li>• Reptiles.</li> <li>• Slickspot peppergrass, including the Crater Rings Elemental Occurrence area.</li> </ul>	These will be addressed in the biological resources section of the document.	3.7.1 and 3.7.2
Wolston, Joe	Public Access	Restricting Public Access	<p>Under Alternative A, public access could be excluded for up to 30 days annually.</p> <p>Under Alternative B there would be no public exclusion.</p>	3.2
Wolston, Joe	Water	Impacting the water table in the area	There are no proposed actions affecting the water table.	3.6
Wolston, Joe	Noise	Noise impacts from training activities	Fully assessed in the document.	3.4
Wolston, Joe	Transportation	Convoy impacts to local roads	Training related impacts to public roads would be limited to Simco Crossing.	3.10



# Simco TA Scoping Comments 2021

Person	Category	Concern	IDARNG Response	Section
Tactical Bacon	Military Training	In support of the proposed action	Impacts to military training are outlined in the document.	3.2
Stough, Caleb	Military Training	Additional training lands are not needed	Impacts to military training are outlined in the document.	3.2
Strough, Caleb	Big Game Habitat	Critical big game habitat and species impacts.	Impacts to wildlife, including special status species, are outlined in the document.	3.7.2
Steenhof, Karen	Golden Eagles and Raptors	Proximity of the proposed action to existing golden eagle Ferruginous Hawks	Impacts to wildlife, including golden eagles and other raptors is outlined in the document.	3.7.2
Spotts, Ricard	Military Training in the NCA	Proper legal authority of the BLM to expand of military training in an area designated as an NCA. Loss of 2/3 of the NCA to invasive plants and wildfire.	Military training is not being introduced to the NCA. Training has occurred in the area since the 1940's. The BLM does have the legal authority to designate ROWs under FLPMA, and military training is specifically called out in the 1993 designation (PI 103-64) as a compatible and allowable use within the NCA, and it conforms to the 2008 NCA resource management plan.	1.1 and 1.4
Munther, Greg	Vegetation and Invasive and Noxious Weeds	Impacts to sagebrush and establishment and spread of invasive species	Impact sot these resources will be fully analyzed in the document.	3.7.1
Munther, Greg	Soils including Biological Crusts	Impacts to wet soils and biological crusts.	As stated, military training activities have self imposed soil saturation requirements, i.e. no off road maneuver training if soils are saturated. This is for soil protection and impacts to equipment. Impact sot these resources will be fully analyzed in the document.	3.5
Munther, Greg	Wildlife	Disturbance to wildlife species	Impact sot these resources will be fully analyzed in the document.	3.7.2





# Simco TA Scoping Comments 2021

Person	Category	Concern	IDARNG Response	Section
Munther, Greg	Public Access	Displaced public access	Under Alternative A, public access could be excluded for up to 30 days annually.  Under Alternative B there would be no public exclusion.	3.2
Munther, Greg	Roads	New roads will bring in more public use	Impact sot these resources will be fully analyzed in the document.	3.2 and 3.10
Munther, Greg	Alternatives	Proposed Alternatives: <ul style="list-style-type: none"> <li>• Conduct these operations on an existing military base</li> <li>• Lease or buy 38,000 acres of private land as a tank playground</li> <li>• Address why tank operators in other National Guard Units do not require such public land for training</li> </ul>	These proposed alternatives are addressed in the document. Mr. Munther was added to the interested party list.	1.1, 1.2, and 2.3
M&3Gs	Lands and Military	I oppose this type of maneuver on public lands due to destruction of the land and habitat and the change in warfare that will rely less on tanks in the future.	Impacts to lands and habitat addressed in the document. Change in warfare tactics are beyond the scope of this action and will not be addressed.	3.2-3.11
Lewis, Courtney	Mountain Home Air Force Base	Impacting operations at the MHAFB	The IDARNG is in constant coordination with MHAFB. As a stakeholder, the MHAFB was included in the development of the proposed action and a mutual agreement MOU for small arms training has been developed.	3.2
Lewis, Courtney	Communication and Noise	Notification of training exercises	The OCTC has a communication structure in place to receive any and all training related complaints. The OCTC averages about 5 complaints annually. A training notification is sent out to those residents within the defined impact area per the OCTC Statewide Noise Plan. It is not logistically feasible to notify all resident sin Elmore County for all training exercise.	3.4
Lakeman, Robert	Wildfire	Impacts from wildfire on local residents	Impact sot these resources will be fully analyzed in the document.	3.7.1
Lakeman, Robert	Local Fire Districts	No existing fire districts	The IDARNG can not provide direct support as a fire district. However, the IDARNG is working with Elmore County to looking to this from an administrative perspective that is not tied to this action.	NA



# Simco TA Scoping Comments 2021

Person	Category	Concern	IDARNG Response	Section
Kochert, Michael	Golden Eagles and Raptors	Proximity of the proposed action to existing golden eagle Ferruginous Hawks	Impacts to wildlife, including golden eagles and other raptors is outlined in the document.	3.7.2
Hum, Peter	Military Training	Potential impacts to soldiers and their safety if inadequately trained, or with insufficient training lands.	Impact sot these resources will be fully analyzed in the document.	3.2
Henderson, Danny	Proposed Action	In support of proposed action.	Comment has been recorded.	NA
Hanson, Thomas	Noise	Noise impacts form training activities	Fully assessed in the document.	3.4
Hanson, Thomas	Water	Impacting the water table in the area	There are no proposed actions affecting the water table.	3.6
Hanson, Thomas	Wildfire	Impacts from wildfire on local residents	Impact sot these resources will be fully analyzed in the document.	3.7.1
Hanson, Thomas	Wildlife and Livestock	Disturbance to wildlife species and livestock	Impact sot these resources will be fully analyzed in the document.	3.2 and 3.7.2
Fite, Katie	All	See 2018 Comments Matrix	See 2018 Comments Matrix	See 2018 Comments Matrix



# Simco TA Scoping Comments 2021

Person	Category	Concern	IDARNG Response	Section
Idaho Conservation League	Public Access and Illegal Activities	Illegal activities are a cause for the need to expand training. Design features to control illegal activities need to be included.	The BLM and IDARNG can not develop a alternative with the assumption that illegal activities would tale place. However, design features will be included to monitor impacts from public use and illegal activities will continue to be managed by BLM and IDARNG on IDL lands.	2.3 and 3.12
Idaho Conservation League	ROW	Is a ROW the best mechanism to authorize this activity and provide necessary safeguards for the NCA.	The BLM has identified through the application process that the ROW, as apposed to a lease agreement, is the best and most responsive way to administer use of the area by the IDARNG.	NA
Idaho Conservation League	Alternatives	Additional alternatives proposed: <ul style="list-style-type: none"> <li>No BLM lands include in the training area, i.e. only State Lands with a BLM ROW.</li> <li>Design features to limit illegal activities</li> <li>Seasonal Limitations</li> </ul>	This alternatives will be reviewed and included in the alternatives section and assessed fully or identified as an alternative considered but not assessed with justification.	2.3
Idaho Conservation League	EIS vs EA	Proposal warrants an EIS	An EA is being completed to see if there are any issues that meet the criteria of "significant". If the EA shows that there would be significant impacts to the human environment then an EIS would have to be prepared. If not then a Finding of No Significant Impact (FNSI) would signed.	EA
Idaho Conservation League	Rotate Training Areas	Incorporate training rotations (2 seasons)	This has been identified as a design feature and will be incorporated into the analysis.	2.3
Idaho Conservation League	Mitigation/Monitoring	Increased on-site mitigation, PSAs, volunteers for seed collection and planting efforts.	Increased resources by the IDARNG are included in the proposed action. The affects of these resources (funding, monitoring, equipment, restoration, fire suppression...) will be assessed.	2.3 and 3.1-3.11
Idaho Conservation League	Fire Response	Impacts from wildfire on local residents	Impact sot these resources will be fully analyzed in the document.	3.7.1
Debolt, Ann	Climate Change/Dust Abatement	Dust abatement on existing lands and impacts from climate change	Impact sot these resources will be fully analyzed in the document.	3.3





**IDAHO NATIONAL GUARD**  
**ENVIRONMENTAL MANAGEMENT OFFICE**  
4715 S. BYRD ST., BLDG. 518  
BOISE, IDAHO 83705-8095



March 2, 2021

In Reply Refer To: Idaho Army National Guard Simco Training Area Environmental Assessment (EA)

Dear Public/Agency Participant:

The Bureau of Land Management (BLM) and Idaho Army National Guard (IDARNG) are soliciting comments on the IDARNG's proposal to use lands managed by the BLM, Bureau of Reclamation (BOR), and the Idaho Department of Lands (IDL) for military maneuver training activities. The proposed training area is approximately 28,430 acres in size, and is located east of Simco Road in Elmore County, adjacent to the Orchard Combat Training Center (OCTC). The proposed training area is required by the IDARNG to offset reduced availability of accessible maneuver training lands within the OCTC in order to meet Department of the Army (DoA) training requirements, and to prepare for and ensure troop combat readiness and safety.

The proposed action would require rights-of-way (ROW) on 12,776 acres of BLM lands, 555 acres of BOR lands, and a long-term lease on 15,097 acres of IDL lands. The majority (74%) of the proposed training area falls within the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA). As such, the BLM will be a Co-lead agency with the IDARNG and National Guard Bureau (NGB) on the Environmental Analysis (EA). A summary of the proposed action is attached.

The public comment period will open **March 5, 2021**. Comments made on this proposal would be most helpful if they are received by **April 5, 2021**, and must be directly relevant to the proposal and project area. Public scoping comments sent electronically should be sent to [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) or [blm\\_id\\_fourriversoffice@blm.gov](mailto:blm_id_fourriversoffice@blm.gov) with the title of this project in the subject line. The preliminary EA is expected to be completed in June of 2021 with a final decision in August 2021.

The BLM and IDARNG will together host two virtual public scoping meetings via Zoom on March 17, 2021. The virtual meeting will include a presentation of the project proposal with an opportunity for the public to submit questions to specialists. Pre-registration is required, after which a confirmation email will be sent with information on how to join the meeting. You can register for the Zoom meeting on the BLM's ePlanning site <https://go.usa.gov/xsbJZ>.

Additional information about the project can also be found at the IDARNG website <https://emomil.imd.idaho.gov/> (Documents for Review), or the BLM's ePlanning website <https://go.usa.gov/xsbJZ>.

Any individuals, groups, or organizations wishing to comment on this process should attend the public scoping meetings or submit written comments to:

Idaho Army National Guard  
Environmental Management Office  
Attention: Charles Baun  
4715 South Byrd Street, Bldg. 518  
Boise, Idaho 83705-8095

Or

Bureau of Land Management  
Morley Nelson Snake River Birds of Prey National Conservation Area  
Attention: Charlotte Alexander  
3948 Development Ave.  
Boise, ID 83705

Electronic comments should be submitted to **ng.id.idarng.list.ngid-emo@mail.mil** or **blm\_id\_fourriversoffice@blm.gov** by close of business on April 5, 2021.

*Before including address, phone number, email-address, or any other personal identifying information in your comments, be advised that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that the BLM withhold personal identifying information from public view, the BLM cannot guarantee it will be able to do so. If you wish us to withhold your personal information you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, available for public disclosure in their entirety.*

## SCOPING/INFORMATION PACKAGE

### Proposed Simco Training Area and BLM ROW

This information package summarizes the Idaho Army National Guard's (IDARNG) proposal to use lands managed by the Bureau of Land Management (BLM), Bureau of Reclamation (BOR), and the Idaho Department of Lands (IDL) for military maneuver training activities (**Figures 1, 2, 3, and 4**). The proposed training area is approximately 28,430-acres, and is located east of Simco Road in Elmore County, adjacent to the Orchard Combat Training Center (OCTC). The proposed training area is required by the IDARNG to offset reduced availability of accessible maneuver training lands within the OCTC in order to meet Department of the Army (DoA) training requirements outlined under Field Manual (FM) 3-96, and Training Circular (TC) 25-1, and to prepare for and ensure troop combat readiness and safety.

The proposed training area is approximately 28,430-acres, and is located east of Simco Road in Elmore County (**Figure 1**). The proposed action would require rights-of-way (ROW) on 12,776-acres of BLM, 555-acres of BOR, and a long-term lease on 15,097-acres of IDL lands (**Figures 1 and 2**). The majority of the site (22,919-acres or 74%) is found within the boundaries of the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA). The residual 7,510-acres (26%) is outside the NCA (**Figure 2**). Training activities would be managed under the BLM's 2008 resource management plan (RMP), IDARNG's 2021 Integrated Natural Resource Management Plan (INRMP), 2020 Integrated Cultural Resource Management Plan (ICRMP), and other internal military requirements.

As this is a federal action, it must be analyzed in accordance with the National Environmental Policy Act (NEPA) to determine potential environmental consequences. The purpose of this document is to inform interested and affected parties of the proposal and to solicit comments to assist with the NEPA process. Analysis of the proposal is ongoing, and will be documented in an environmental assessment (EA), with a final decision estimated in August of 2021. Comments received in response to this solicitation will be used to identify potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the IDARNG and BLM's purpose and need.

#### **Background**

The mission of the IDARNG and the OCTC (**Figure 1**) is to provide training lands and Annual Training facilities first to the IDANG and Reserve Forces, and then to other government and civilian organizations, training corps departments, and public education institutions to the extent that there is no interference with existing military training activities. The OCTC is the primary training area for IDARNG-assigned units. It is also one of the largest heavy force (armor/mechanized) training areas in the United States. The OCTC provides training for both the federal and state missions of the IDARNG. The state missions include providing assistance as requested to the Governor during State emergencies, including natural disasters, civil disturbance, or terrorist attacks. During times of national emergencies, the President reserves the right to mobilize the National Guard, putting them in federal duty status. The OCTC has the following missions:

- Providing a training area for National Guard (NG), Reserve, and Active Military Forces
- Providing assistance, facilities, and training areas for logistical support to units conducting Inactive Duty Training (IDT) and Annual Training (AT)
- Providing small arms and crew-served weapons qualification ranges and facilities
- Providing maneuver areas suitable for training heavy armor and mechanized units
- Providing range facilities for M1A1 and M1A2 tank series and Bradley fighting vehicles
- Providing for artillery gunnery and maneuver
- Providing for AH-64 Apache attack helicopter gunnery
- Providing or coordinating organizational and direct support maintenance facilities for units conducting training
- Providing training areas and facilities to local law enforcement agencies, civil defense organizations,

The mission of the BLM is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. Established in 1993 with the enactment of Public Law (PL) 103-64, the NCA is located in southwestern Idaho, comprising more than 483,000 acres and including portions of Ada, Canyon, Elmore, and Owyhee counties. The NCA was established, and is managed to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area.

The mission of the IDL is to manage Idaho's endowment assets to maximize long-term financial returns to public schools and other trust beneficiaries, and to provide professional assistance to the citizens of Idaho to use, protect and sustain their natural resources.

### **Purpose and Need for Actions**

#### ***IDARNG***

The purpose of the IDARNG's proposed action is to offset the loss of available heavy maneuver training lands within the OCTC associated with the BLM management guidance outlined in their 2008 RMP, and make available a sufficient amount of accessible, heavy maneuver training lands to support the mission of the IDARNG and Department of Defense (DoD). The BLM's 2008 RMP management guidelines required that military maneuver activities be restricted to areas with less than 10% shrub cover. As such, the amount of available/useable military maneuver training lands within the OCTC boundary was reduced from roughly 89,000 acres to approximately 35,000 acres, a reduction of roughly 54,000 acres or 62% of the historically available area. Coupled with increasing training conflicts from public use of the OCTC, the amount of available and affective heavy maneuver training lands within the current OCTC boundary is insufficient to meet the existing mission requirements of the DoD and IDARNG.

The additional training lands are needed to:

- Offset the loss of available maneuver training lands within the existing OCTC boundary.
- Address increasing training conflicts associated with the growing public use of the OCTC.
- Meet IDARNG mission and DoD and DoA training requirements outlined in FM 3-96, TC 25-1, and to prepare for and ensure troop combat readiness.
- Allow the Brigade Combat Teams (BCT) to complete an Exportable Combat Training Capability (xCTC) program within 30 days to better prepare for Large Scale Combat Operations (LSCO) and achieve Mission Essential Task List (METL) proficiency. Department of Defense Instruction Number 1215.06 prevents Guard brigades from keeping Soldiers on orders for more than 30 days during Annual Training, thereby reducing Guard BCTs from achieving METL proficiency. National Guard Regulation (NGR) 350-1 meanwhile encourages all elements of a unit to train together whenever possible. Current land holdings in the OCTC do not allow for a BCT to complete xCTC and other mandated collective training within 30 days.
- Provide the capability for LSCO and training over realistic distances all of which contribute to the overall strategic readiness of the force.
- Support sustainable range practices by resting and rotating areas impacted by military training activities, i.e. allowing vegetative regeneration and recovery in areas impacted.

#### ***BLM***

The BLM's purpose of the proposed action is to decide whether to grant authorizations on 12,776-acres of BLM and 555-acres of BOR-managed lands to the IDARNG for maneuver training activities, and to construct, use, and maintain 12.7-miles of unpaved roadway and associated infrastructure projects within the proposed Simco Training Area (**Figure 3 and 4**).



The need for the action is for BLM to respond to IDARNG applications for use of Federally managed public lands pursuant to the Federal Land Policy and Management Act (FLPMA), 43 United State Code (U.S.C.) § 1701 et seq. and the BLM's ROW regulations, 43 Code of Federal Regulations (CFR) Part 2800.

### **Proposed Action**

The IDARNG is coordinating with the BLM and IDL to establish long-term agreements on approximately 28,430 acres in Elmore County Idaho (**Figure 1, 2, 3, and 4**). The IDARNG is requesting a ROW from the BLM on 13,331-acres (12,776-acres of BLM and 555-acres of BOR), including 12.7 miles of unpaved road, and a lease agreement with the IDL on 15,097-acre. The agreements are required to access, use, and maintain these lands, and allow the IDARNG to make alterations to existing infrastructure to balance existing uses and management requirements with proposed military maneuver and engineering activities (**Figures 1, 2, 3, and 4**). The proposed military training activities would meet DoD training requirements outlined in FM 3-96 and TC 25-1.

The type, timing, and management of military maneuver training activities conducted within the proposed project area would be the same as those currently conducted within the OCTC. However, the overall training footprint would be dispersed over a larger area. Annual training operations could occur from March through November, but are normally limited to May through August based on self-imposed soil moisture limitations implemented by the IDARNG. Total annual training operations would be limited to eight (8) mechanized or armor companies (125 tracked vehicles), with oppositional forces and support vehicles. Annual training operations would include off-road maneuver training activities and isolated engineering tasks conducted outside established off-limits areas. Engineering tasks would be limited to 10 acres of temporary disturbance on BLM lands and 20 acres of disturbance on IDL lands annually.

There would be no live fire training operations of any kind within the proposed area. Force-on-force operations would only use blank fire and multiple integrated laser engagement system (MILES), or similar non-live fire systems for training purposes. Units operating in the area could remain overnight on one of three proposed assembly areas (20-acres each) in order to conduct multi-day training events. Two of the three sites are located on BLM lands, and one is located on IDL lands (**Figure 3 and 4**).

The IDARNG would actively support the proposed training area in coordination with BLM and IDL staff for natural resources, cultural resources, and wildland fire suppression. Like the OCTC, active management of these resources are required under Army Regulation (AR) 350-19, AR 200-1, and the IDARNG's INRMP, ICRMP, and associated resource management documents. The IDARNG would also provide increased resources (funding, staff, equipment, infrastructure, etc.) for monitoring and protection of natural and cultural resources, active rehabilitation and restoration of habitat, control of invasive and noxious weeds, and wildland fire suppression and rehabilitation.

Some changes to existing infrastructure (**Figure 3**), including roads, fences, gates and cattle guards, water system, and others would be required for training purposes. Proposed changes to the infrastructure are identified in **Figure 4** and discussed below. The IDARNG will coordinate with the BLM, IDL, and the existing grazing permittee to make these modifications as needed. The IDARNG understands that changes to existing infrastructure may require funding to reimburse the permittee for infrastructure that they developed. Similarly, any damages to property, including livestock, attributed to military training activities shall be reimbursed per the final agreements.

The proposed changes to fences, gates, and cattle crossing infrastructure include the net removal of approximately 37,600 linear feet (lf) (7.1 miles) of four-strand barbed wire fence. This includes the removal of 74,500 lf (14.0 miles) of fence to allow for greater flexibility in maneuver training activities, but up to 36,900 lf (6.9 miles) of new fence to maintain livestock pastures and to protect resources associated with off-limits areas. Two existing range gates would also be upgraded to 13-foot swinging

metal gates (26 total feet), to allow for vehicle access and egress, and up to 25 additional cattle guards could be added to allow easier vehicle movement throughout the allotments/pastures while limiting livestock movement.

The existing permittee using the area (Simplot) has developed an extensive water system (9.8 miles of pvc pipe) located on the IDL lands. To reduce impacts to the water line, the IDARNG would work with Simplot to replace the water line with polyline buried under a minimum of 18-inches of crushed gravel. In addition to the irrigation system, there are 18 existing livestock water troughs and one water tank would require protection measures. Ten-foot high Seibert stakes (reflective poles) may be placed around each trough and tank to protect the site while still allowing livestock and the permittee access.

The IDARNG would also take similar measures to delineate and protect an existing Idaho Power 230 kV overhead electrical transmission line. The transmission line would be protected by enhancing the two-track adjacent to the line (physical delineation) and putting reflective markers on each pole, with additional visible lights attached at vehicle height to every other pole during nighttime training activities. The IDARNG will also integrate, to the extent possible, the power line, all off-limits sites, and any areas of concern into the Joint Battle Command Platform (JBCP). This is a location-based system that notifies the user when they are in proximity of a defined area.

Access to the proposed training site would occur at Simco Road and the Mountain Home access points (**Figure 3**). The Simco Road access point would be the primary access and egress point for training vehicles (tracked and wheeled). The secondary access points would be located off the NW Bypass Road. All access points would be gated, but the use of locks will be at the discretion of, and in accordance with, the policies of the land managers.

### **Public Input Needed**

Public scoping for the proposed action began on March 5, 2021. Comments made on this proposal would be most helpful if they are received by April 5, 2021, and are directly relevant to the proposal and project area. It is anticipated that a preliminary EA will be made available for public comment sometime in June of 2021. Public scoping comments sent electronically should be sent to **[ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil)** or **[blm\\_id\\_fourriversoffice@blm.gov](mailto:blm_id_fourriversoffice@blm.gov)** with the title of this project in the subject line.

### **Public Meetings (Virtual)**

In addition to this project scoping document, the BLM and IDARNG will together host two virtual public scoping meetings via Zoom on March 17, 2021. The virtual meeting will include a presentation of the project proposal with an opportunity for the public to submit questions to specialists. Pre-registration is required, after which a confirmation email will be sent with information on how to join the meeting. You can register for the Zoom meeting on the BLM's ePlanning site <https://go.usa.gov/xsbJZ>.

Additional information about the proposed action can also be found at the IDARNG website <https://emomil.imd.idaho.gov/> (Documents for Review), or the BLM website <https://go.usa.gov/xsbJZ>.

**Please send any written comments to:**

Idaho Army National Guard  
Environmental Management Office  
Attn: Charles Baun  
4715 S. Byrd St., Bldg. 518  
Boise, Idaho 83705-8095

Or

Bureau of Land Management  
Attn: Charlotte Alexander  
3948 Development Ave.  
Boise, ID 83705

*Before including address, phone number, email-address, or any other personal identifying information in your comments, be advised that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that the BLM withhold personal identifying information from public view, the BLM cannot guarantee it will be able to do so. If you wish us to withhold your personal information you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, available for public disclosure in their entirety.*

Attached Figures:

Figure Legend

Figure 1: Vicinity Map

Figure 2: Ownership Map

Figure 3: Existing Infrastructure

Figure 4: Proposed Infrastructure

## **Comment Letters**

**From:** [casdy@idfg.idaho.gov](mailto:casdy@idfg.idaho.gov)  
**To:** [John.Schmitt@idfg.idaho.gov](mailto:John.Schmitt@idfg.idaho.gov)  
**Subject:** [Internal] IDFG Scoping Comments Idaho Army National Guard Simco Training Area Environmental  
**Date:** Monday, April 8, 2013 11:08 AM  
**Attachments:** [casdy.pdf](#)

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

FYI - From Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

**From:** Pozzanghera,Casdy [casdy.pozzanghera@idfg.idaho.gov]  
**Sent:** Monday, April 8, 2013 8:19 PM  
**To:** FourRiversOffice, BLM, ID-483M\_ID, FourRiversOffice@idfg.gov  
**Subject:** [EXTERNAL] IDFG Scoping Comments Idaho Army National Guard Simco Training Area Environmental

**[This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.]**

Dear Charlotte Alexander,

The Idaho Department of Fish and Game's (IDFG) mission is to preserve, protect, perpetuate, and manage fish and wildlife for the public interest (Idaho Code § 36-103). Accordingly, IDFG has reviewed the Idaho Army National Guard (IDARNG) and Bureau of Land Management (BLM) proposal to prepare an Environmental Assessment (EA) for IDARNG's use of state and federally managed lands east of Simco Road for military maneuver training activities. IDFG's technical comments are intended to inform decision-making about potential effects of the proposed activities and options to avoid or mitigate adverse effects.

The proposed training area is approximately 21,430 acres, with the majority of these acres (74%) falling in the Marley Nelson Snake River Birds of Prey National Conservation Area (NCA). The NCA is managed for the protection and conservation of raptor populations, but supports a diversity of native wildlife and rare plants. The proposed activities for operation (off-road maneuver training) and site preparation (e.g. existing infrastructure changes to fences, gates, utility crossing, transmission lines, and water lines) could affect existing disturbance levels and habitat conditions for native wildlife and rare plants inhabiting affected areas. IDFG therefore recommends that the EA comprehensively analyze potential adverse effects and corresponding mitigation options for the following resources:

- Big game, including pronghorns.
- Small mammals, including pygmy rabbits.
- Birds.
- Migratory birds including raptors.
- Raptors.
- Endangered species, including the Greater Sage-Grouse.

To aid EA preparation, the Idaho Fish and Wildlife Information System (IFWIS) is available online for requesting species data (Caution: <https://fishandgame.idaho.gov/species/request-data> - Caution: <https://goof.outlook.protection.outlook.com/?url=https://idfg.idaho.gov/species/request-data>). Additional wildlife management plans and reports are also available on IDFG's website (Caution: <https://idfg.idaho.gov> - Caution: <https://goof.outlook.protection.outlook.com/?url=https://idfg.idaho.gov>).

Thank you for the opportunity to provide input. Please contact me with any questions or for additional information.

Sincerely,

Casdy Pozzanghera

Casdy Pozzanghera  
Staff Biologist, Southwest Region  
Idaho Department of Fish and Game  
1301 N. Coeur Blvd  
Harlow, ID 83487  
(208) 854-8947  
casdy@idfg.idaho.gov



Caution: <https://idfg.idaho.gov> - Caution: <https://goof.outlook.protection.outlook.com/?url=https://idfg.idaho.gov/species/request-data>  
<https://idfg.idaho.gov/species/request-data> - Caution: <https://goof.outlook.protection.outlook.com/?url=https://idfg.idaho.gov/species/request-data>

# OFFICE OF SPECIES CONSERVATION

**BRAD LITTLE**  
Governor



P.O. Box 83720  
Boise, Idaho 83720-0195

**MICHAEL R. EDMONDSON**  
Interim Administrator

304 N. Eighth Street, Suite 149  
Boise, Idaho 83702-5833

April 5, 2021

Idaho Army National Guard  
Environmental Management Office  
Attn: Charles Baun  
4715 S. Byrd St., Bldg. 518  
Boise, Idaho 83705-8095  
Email: [ng.id.idarng.list.ngrid-emo@mail.mil](mailto:ng.id.idarng.list.ngrid-emo@mail.mil)

Bureau of Land Management  
Attention: Charlotte Alexander  
3948 Development Ave.  
Boise, ID 83705  
Email: [BLM\\_ID\\_FourRiversOffice@blm.gov](mailto:BLM_ID_FourRiversOffice@blm.gov)

## **RE: Idaho Army National Guard Simco Training Area Environmental Assessment Scoping**

To Mr. Baun and Ms. Alexander,

The Office of Species Conservation (OSC) appreciates the opportunity to provide comment on the Bureau of Land Management (BLM) and Idaho Army National Guard's (IDARNG) Simco Training Area Scoping proposal to use lands managed by the BLM, Bureau of Reclamation (BOR), and Idaho Department of Lands (IDL) for military maneuver training activities. OSC is dedicated to planning, coordinating, and implementing actions to preserve, protect, and restore species listed as rare or declining, threatened, endangered, or candidate while considering Idaho's economic vitality and values.

The purpose and need of this project focuses on addressing the reduced availability of accessible maneuver training lands for IDARNG, meeting the Department of the Army training requirements, and preparing for and ensuring troop combat readiness and safety. Based on the Scoping Meeting Presentation, the proposed training area expansion boundary includes the presence of slickspot peppergrass (*Lepidium papilliferum*) (LEPA). According to the Biological Resources – Threatened and Endangered Species slide in the scoping documents and the public meetings that were held, it seems as though the BLM and IDARNG have included some off-limits areas, within the plan, to protect LEPA in the proposed project area by restricting access around occupied slickspots though the maintenance and additional construction of infrastructure or visual markers which will be beneficial to avoid disturbance to slickspots from training activities. As outlined in the Candidate Conservation Agreement for Slickspot Peppergrass (*Lepidium Papilliferum*) and the USFWS Species Status Assessment of *Lepidium Papilliferum* (Slickspot Peppergrass), wildfire and invasive nonnative plant species are some of the main threats to LEPA. It is important that BLM and IDARNG include in their analysis the continuation of the application of prompt fire management activities, active sagebrush and forb

Pg. 1

**IDARNG Simco Training Area Environmental Assessment Scoping April 2021**

habitat restoration, invasive and nonnative vegetation treatment, and annual census and monitoring surveys to benefit LEPA and understand how it is directly and indirectly affected within the project area and throughout the Orchard Combat Training Center.

Thank you for the opportunity to review these projects and provide recommendations. If you have any questions, please contact my Terrestrial Species Program Manager and Policy Advisor, Joshua Uriarte (208-332-1556; joshua.uriarte@osc.idaho.gov).

Sincerely,



/s/ Mike Edmondson

MIKE EDMONDSON

Interim Administrator and Aquatic Species Program Manager and Policy Advisor





**From:** [Ann M Debolt](mailto:Ann.M.Debolt@blm.gov)  
**To:** [blm\\_id\\_fourriversoffice@blm.gov](mailto:blm_id_fourriversoffice@blm.gov)  
**Cc:** [NG ID IDARNG List](#) [NGID EMO](#)  
**Subject:** [Non-DoD Source] Idaho Army National Guard Simco Training Area Environmental Assessment  
**Date:** Monday, April 5, 2021 4:39:10 PM

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Dear Four Rivers Field Office Manager:

I am writing because I believe that the 28,000 acre expansion of the IDARNG Training Area, nearly 13,000 acres of which are BLM, is unwarranted. The Guard currently has control of a 143,000 acre training center described on the website as “providing vast terrain and world-class ranges to prepare brigade combat teams and other units for combat in a tough and realistic training environment.” Taking additional public lands out of habitat that is essential for a variety of raptor species and their prey base, for the purpose of heavy maneuvers, when this land is within or immediately adjacent to the Morley Nelson Birds of Prey National Conservation Area, seems unwise at this time of drastic climate change and declining bird populations. After all, Congress established Idaho’s Snake River Birds of Prey National Conservation Area (NCA) in 1993 -- home to the greatest concentration of nesting birds of prey in North America, and perhaps, the world. Perhaps the area’s status should be taken a bit more seriously.

Given the Congressional designation of the NCA, it seems that an EIS is more appropriate than an EA to evaluate the potential impact of the Simco Training Area expansion. BLM could then take a hard and complete look at all direct, indirect and cumulative effects of the Guard’s proposal on the NCA, its wildlife and raptor populations, rare plant populations, recreational values and public safety. A full range of alternatives to the proposed action must be considered, including making more efficient use of the existing 143,000 acre Orchard Training Area, doing better dust abatement on the lands already degraded by training maneuvers, using more simulations in training, and working together (BLM with the IDARNG) to reduce public “intrusion” on the military. The Guard appears to blame the high recreational use of the NCA for many of its problems, and now seeks to further increase public conflicts by its expansion proposal. This 28,000 acre expansion sets a precedent for additional and never ending expanded training within the NCA.

Using Golden Eagles as an example, Kochert et al. (2018) documented a decline of 34% in the number of occupied Golden Eagle territories in the NCA between 1971 and 2016. More pairs have been lost since 2016, revealing the

importance of protecting the remaining pairs in the NCA. The IDARNG needs to do all they can to reduce disturbance to Golden Eagles and other raptors such as Ferruginous Hawks, Prairie Falcons, Burrowing Owls, among others. I contend that increasing the Training Area by an additional 28,000 acres for heavy maneuver training is in direct conflict with reducing disturbances to raptor populations and their critical prey base. The Guard proposes to use the area from March to November. At least four if not five of these months overlap the time when raptors are breeding and or raising young. This is why an EIS, rather than an EA, should be prepared for the Simco Training Area Expansion. It would provide the opportunity for greater public involvement, and for the deeper analyses necessary to evaluate the many issues and factors involved.

Thank you for the opportunity to comment on the proposed Simco Training Area Expansion. Please add me to your list of interested publics for future actions associated with this project.

Sincerely,  
Ann DeBolt

References:

Kochert, M. N., K. Steenhof, C. Pozzanghera, and J.H. Heath. 2018. Monitoring of Golden Eagle nesting territory occupancy and reproduction in the Morley Nelson Snake River Birds of Prey National Conservation Area, Owyhee Survey Area, and Comparison Survey Areas, Idaho, 2011-16. Administrative Report. U.S. Geological Survey. Reston, VA USA

**From:** FourRiversOffice\_BLM\_ID  
**To:** Beau, Charles W AFG NC IDARNG (USA)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] OCTC Military Expansion in SRBOPA and surrounding lands  
**Date:** Monday, April 5, 2021 4:31:57 PM

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FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** katie fite <katie@wildlandsdefense.org>  
**Sent:** Tuesday, March 23, 2021 5:32 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** Re: [EXTERNAL] OCTC Military Expansion in SRBOPA and surrounding lands

Hi, I am sending you this corrected version of this e-mail. Please use this version.

Thanks,

Katie Fite  
WildLands Defense

Dear BLM,

WildLands Defense requests BLM prepare an EIS for this highly significant action. There are innumerable assaults on the public lands and public airspace by both MHAFB (including Singapore based there to foster Military spending in Idaho), and National Guard public land takeovers like this one. There is currently an increased supersonic overflight proposal from MHAFB, as well as a Singapore biennial massive sonic hell event EA out for public comment. There appears to be no end to the schemes for military incursion on the lives of Idaho residents and on wildlife habitats and public lands.

We urge BLM to develop a full range of alternatives to reduce and decrease military uses across the SRBOPA, and to deny this latest large-scale military assault on native wildlife, public lands, and the public.

We carry forward all of our previous comments on this and other recent IDANG and MHAFB activity expansion schemes, and ask that each and every issue raised in those comments be evaluated in an EIS for this project.

Please let me know that you have received this.

NOTE that Scoping letter e-mail address for the Guard appears to NOT WORK. I keep getting an invalid e-mail address.

What happens when the war "training" and technology used don't work as planned in this dangerous training activity? Or when the Guard starts more range fires?

This appears to be linked to the proposed Singapore hellish assault on southern Idaho.

Katie Fite  
Public Lands Director  
WildLands Defense  
PO Box 125  
Boise, ID 83701  
208-871-5738

Katie Fite  
Wildlands Defense

On Mar 23, 2021, at 11:27 AM, FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov < Caution-mailto:BLM\_ID\_FourRiversOffice@blm.gov >> wrote:

Your comments have been received.

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** katie fite <katie@wildlandsdefense.org < Caution-mailto:katie@wildlandsdefense.org >>  
**Sent:** Monday, March 22, 2021 8:06 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov < Caution-mailto:BLM\_ID\_FourRiversOffice@blm.gov >>  
**Subject:** [EXTERNAL] OCTC Military Expansion in SRBOPA and surrounding lands

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Dear BLM,

WildLands Defense requests BLM prepare an EIS for this highly significant action. There are innumerable assaults on the public lands and public airspace by both MHAFB (including Singapore based there to foster Military spending in Idaho), and National Guard public land takeovers like this one. There is currently an increased supersonic overflight proposal from MHAFB, as well as a Singapore biennial massive sonic hell trying event EA out for public comment. There appears to be no end to the schemes for military incursion on the livestock of Idaho residents and on wildlife habitats and public lands.

We urge BLM to develop a full range of alternatives to reduce and decrease military uses across the SRNOPA, and to deny this latest large-scale military assault on native wildlife, public lands, and the public.

We carry forward all of our previous comments on this, and ask that each and every issue raised in them be evaluated in an EIS for this project.

Please let me know that you have received this.

NOTE that Scoping letter e-mail address for the Guard appears to NOT WORK. I keep getting an invalid e-mail address.

What happens when the war "training" and technology used don't work as planned in this dangerous training activity? Or when the Guard starts more range fires?

This appears to be linked to the proposed Singapore hellish assault on southern Idaho.

Katie Fite  
Public Lands Director  
WildLands Defense  
PO Box 125  
Boise, ID 83701  
208-871-5738

**From:** [Thomas Hanson](#)  
**To:** [NG ID IDARNG List NGID EMO](#)  
**Cc:** [Hanson, Thomas D CTR USAF ACC A6 \(USA\)](#)  
**Subject:** [Non-DoD Source] Idaho Army National Guard Simco Training Area Environmental Assessment (EA)  
**Date:** Sunday, April 4, 2021 12:42:27 PM

---

4 April 2021

In Reply To: Idaho Army National Guard Simco Training Area Environmental Assessment (EA)

As a land owner near the purposed area I have a few concerns.

1. I currently have the house shake and windows rattle from firing on the current firing range. How much worse will it be if they directly behind my Farm at 13580 Grandview Road, Mountain Home ID. 83647
2. What impact will it cause long term to the water?
3. Is there going to be a good fire prevention method as currently there are fires every year just from Lighting without adding explosive ordinance.
4. What effect will the noise have my livestock and will it decrease egg production
5. Will there be night firing which impact sleeping for animal and family members at night?
6. What effect will it have the Badger, coyotes and Johnson pocket gofer? Will they forced toward residential areas?
7. What impact will have on the birds of prey that protected?

Thomas D. Hanson  
Tntfarms  
13580 Grandview Road  
Mountain Home, ID 83647  
208-828-2167

**From:** [FourRiversOffice, BLM\\_ID](#)  
**To:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] New Military Training Area  
**Date:** Monday, April 5, 2021 4:29:04 PM

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FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** Danny Henderson <prospector1950@hotmail.com>  
**Sent:** Friday, March 12, 2021 3:50 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** [EXTERNAL] New Military Training Area

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# Military training SE of Boise could bring tanks to public lands. Idaho

# Guard seeks input

As a retired veteran, I'm all for it. - I would vote Yes. - Our military needs all the training they can receive, and the only way to get that training is to have more training areas not less.

Sent from Mail < Caution-[https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgo.microsoft.com%2Ffwlink%2F%3FLinkId%3D550986&data=04%7C01%7Cblm\\_id\\_fourriversoffice%40blm.gov%7Cf56630baa949491e50b208d8e56e8dc4%7C0693b5ba4b184d7b9341f32f400a5494%7C0%7C0%7C637511610305603793%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Iik1haWwiLCJXVCi6Mn0%3D%7C0&sdata=PBvOJUDerOj8M4RuMkWkqyOxg5H%2F17VVxUERoTRJ5Us%3D&reserved=0](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgo.microsoft.com%2Ffwlink%2F%3FLinkId%3D550986&data=04%7C01%7Cblm_id_fourriversoffice%40blm.gov%7Cf56630baa949491e50b208d8e56e8dc4%7C0693b5ba4b184d7b9341f32f400a5494%7C0%7C0%7C637511610305603793%7CUnknown%7CTWFpbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Iik1haWwiLCJXVCi6Mn0%3D%7C0&sdata=PBvOJUDerOj8M4RuMkWkqyOxg5H%2F17VVxUERoTRJ5Us%3D&reserved=0) > for Windows 10

**From:** [Danny Henderson](#)  
**To:** [NG ID IDARNG List NGID EMO](#)  
**Subject:** [Non-DoD Source] New Military Training Area  
**Date:** Friday, March 12, 2021 7:50:19 AM

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# Military training SE of Boise could bring tanks to public lands. Idaho Guard seeks input

I'm all for it. - I would vote "Yes"

Sent from Mail < Caution-<https://go.microsoft.com/fwlink/?LinkId=550986> > for Windows 10



**From:** [FourRiversOffice, BLM\\_ID](#)  
**To:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] Comment on Army Nat'l Guard Expansion of Orchard Combat TRaining enter  
**Date:** Monday, April 5, 2021 4:29:39 PM

---

FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** Peter Humm <bigranvil@yahoo.com>  
**Sent:** Friday, March 12, 2021 5:29 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** [EXTERNAL] Comment on Army Nat'l Guard Expansion of Orchard Combat TRaining enter

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I have the following comments on the scope of the proposed Environmental Assessment of expanding the Orchard Combat Training Center:

The EA should include discussion/analysis of the following issues:

- 1) The Army National Guard, particularly the Idaho Guard, is being used more and more for frequent deployments to combat zones, as an enhancement of the regular, full-time US Army and other Armed Forces.
- 2) Realistic training in the United States is a critical component of making the Guard combat effective. Units that cannot have on-the-ground, realistic combat training will suffer higher rates of combat casualties, both injuries and deaths.
- 3) Current real-world experience in Mideast warfare (Afghanistan/Iraq/Syria and potentially Iran) clearly demonstrates that such warfare is spread out over large distances, with combat units engaging at longer ranges than in the past, and using tanks, mechanized infantry vehicles and helicopters traveling at much higher speeds than in the past.
- 4) The current size of the Orchard Combat Training Center is too small for realistic training for combat in the Mideast and other dispersed locations that the National Guard may encounter during combat deployments.
- 5) The Environmental Analysis must therefore include an assessment of the increased number of casualties the Guard will suffer if the proposed expansion is denied. Denial of this expansion is likely to have a cumulative effect of increased casualties during real-world combat.
- 6) Failure to expand the Orchard Training Center would represent a significant adverse impact on the lives of Idaho National Guard members and their families.

These comments are submitted by a veteran of the US Army's 1st Cavalry Division, who has personal experience with unrealistic and inadequate training opportunities. Please give these comments the

serious consideration that our National Guard members deserve.

Peter Humm  
PO Box 1377  
Mountain Home, ID 83647

**From:** [John Robison](#)  
**To:** [NG ID IDARNG List NGID EMO](#); [blm\\_id\\_fouriversoffice@blm.gov](mailto:blm_id_fouriversoffice@blm.gov); [Williamson, Michael](#); [Baun, Charles W NFG NG IDARNG \(USA\)](#); [tbowen@blm.gov](mailto:tbowen@blm.gov)  
**Subject:** [Non-DoD Source] Simco Training Area expansion  
**Date:** Monday, April 5, 2021 10:56:35 PM  
**Attachments:** [Simco Training Area Expansion.docx](#)

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Please see ICL's scoping comments on the Simco Training Area expansion attached below.

Thank you for hosting the virtual open houses. We look forward to reviewing the next stage of environmental analysis for this project and hope you can design the project in such a way that addresses our concerns.

John Robison

He/Him/His (what's this? < Caution-<https://www.mypronouns.org/he-him> > )

Public Lands Director

Idaho Conservation League

PO Box 844, Boise, ID 83701

Mobile phone 208-345-6933 x 113 • fax 208.344.0344

Caution-<http://www.idahoconservation.org> < Caution-<http://www.idahoconservation.org/> >

Twitter: [@idconservation](#)

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**I may send e-mails over weekends and at odd hours. I do not expect you to do the same.**

**From:** [Kochert, Michael N](#)  
**To:** [NG ID IDARNG List](#) [NGID EMO](#)  
**Cc:** [FourRiversOffice](#), [BLM ID](#); [karensteenhof@gmail.com](mailto:karensteenhof@gmail.com); "Ann M Debolt"; [Weldon, Joseph M](#)  
**Subject:** [Non-DoD Source] Idaho Army National Guard Simco Training Area Environmental Assessment scoping comments  
**Date:** Monday, April 5, 2021 2:58:43 AM

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Thank you for the opportunity to comment on the proposed Simco Training Area. I have been studying the raptors and other trophic levels in the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA) for the last 50 years and am familiar with the area in and around the proposed area. My main concern is that the northern boundary of the proposed training area is only about 50m south of the south rim of the east crater of Crater Rings. Also, the northern proposed "Dig Site" is only 450 m away from the rim. of the east crater. The two craters forming Crater Rings contain a pair of GOEAs, up to 3 pairs of PRFA, and at least 1 pair of FEHAs. I and my colleagues have been monitoring Golden Eagles nesting in the craters since 1974, and they have been quite productive. We have documented a 34% decline in the number of occupied GOEA territories in the NCA between 1971 and 2016 (Kochert et al. 2018). We have lost more pairs since 2016, revealing the importance of protecting the remaining pairs in the NCA. The IDARNG needs to do all they can to reduce disturbance to the eagles and other raptors. My concerns would be reduced if permanent sites were set back to a safe distance from the rings and use near the rings be restricted to the non-nesting season. I suggest that the IDARNG Conservation staff work with USGS and Boise State University specialist and others to establish what should be the setback. I have interacted with the conservation staff with the IDARNG for the last 30 years and am confident all effort will be made to protect the raptor resource. I also believe that the monitoring of the raptors in Crater Rings should continue.

#### Literature Cited

Kochert, M. N., K. Steenhof, C. Pozzanghera, and J.H. Heath. 2018. Monitoring of Golden Eagle nesting territory occupancy and reproduction in the Morley Nelson Snake River Birds of Prey National Conservation Area, Owyhee Survey Area, and Comparison Survey Areas, Idaho, 2011-16. Administrative Report. U.S. Geological Survey. Reston, VA USA

Respectfully submitted

Michael N. Kochert  
Scientist Emeritus  
USGS Forest and Rangeland Ecosystem Science Center

Snake River Field Station

970 Lusk Street

Boise, ID 83706

208/308-8046 (Cell); 208/426-5210 (FAX)

[mkochert@usgs.gov](mailto:mkochert@usgs.gov) < Caution-mailto:mkochert@usgs.gov >

**From:** [Robert Lakeman](#)  
**To:** [tbowen@blm.gov](mailto:tbowen@blm.gov); [NG ID IDARNG List NGID EMO](#)  
**Subject:** [Non-DoD Source] Simco Training Area Expansion  
**Date:** Thursday, April 1, 2021 4:00:39 PM

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Hello!

As a property that will absolutely be affected by this training area expansion, I would like to say that I am a very vocal supporter of the US Military, and understand completely that this training area is needed. However, I feel obligated to make a point that may have been overlooked.

The area I live in has NOT been entered into any Fire Protection District, therefore any wildfires that come our way are not extinguished unless it will affect MHAFB or BLM land. The way it was explained to me was that the Elmore Fire District did not have enough people who opted in. While this may be true, the process was doomed from the start, and possibly purposely done so.

The majority of land owned within this district does not have any improvements, and these land owners did not respond to the fire district vote. The properties with improvements were the ones who opted in for the fire district but fell short because improved properties are the minority. This will likely never change for many years if the Elmore Fire District keeps this methodology.

I mention this because any expansion of a training area WILL increase wildfires. These fires will run straight from the training area into my home. This is a great concern to me, and may need to be addressed in an environmental impact study.

Now, if the state or federal agencies involved in this expansion were able to help get my area into a Fire Protection District, I feel it would show a great compromise with almost zero cost involved. I am not asking anyone else to pay for my Fire District, only that I have the opportunity to have my property protected like others in Elmore County.

In conclusion, I am willing to be again a vocal supporter of this training area expansion, but I am also asking for your help in entering this area into a fire protection district. I can handle the additional dust, noise, etc, but the potential of increased fire danger without fire protection will have me vocally against this expansion at this time.

Thank you for reading this email.

Robert Lakeman  
4480 SW Easy Street  
Mountain Home, ID 83647  
916-208-1639

**From:** [FourRiversOffice, BLM\\_ID](#)  
**To:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] Expanding Training Area into Mtn Home  
**Date:** Monday, April 5, 2021 4:28:13 PM

---

FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** Courtney Lewis <lewis.court@gmail.com>  
**Sent:** Sunday, March 7, 2021 7:31 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** [EXTERNAL] Expanding Training Area into Mtn Home

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To Whom It May Concern,

I fully support providing opportunities for military to train, increase their effectiveness and better prepare them to return home safely. However, as a citizen of Mountain Home, I have concerns. In the past when these exercises have been run, the Army Guard has shown a distinct disregard for the residents that live in Mountain Home and Elmore County. No notice was given or well advertised, exercises ran into the small hours of the night/morning and the shelling was non-stop for hours at time. The next day, residents were irate, the City unprepared to respond because they had no idea it was going to occur and the Army PA office absent when contacted and never responded to resident concerns. This type of behavior is common place. It's not the only example we as citizens could provide. The lack of outreach locally is obvious. It's as if the Guard is trying to slip this past the citizens of Mountain Home. COVID cannot be the excuse for not holding robust opportunities for residents to ask questions. Virtual meetings will not cut it.

A sincere concern that I have, aside from the disruption and full lack of communication this would bring, is that it may impact operations at Mountain Home AFB. The base has been the stalwart partner to the city for decades. It's mission is essential to our country but also Mountain Home's economy. The location this expanded training area is impacting is in close proximity to Mountain Home AFB. Assurances will need to be made that this expansion is done in full partnership with leadership at MHAFB and will not impact their daily operations.

Mountain Home AFB has gone out of its way to not just be a good neighbor to the citizens of Mountain Home but also to partner with the community. The strategy of the guard to move the noise and disruption of their training operations away from the Urban areas of the Treasure Valley is obvious. However, doing do to the detriment if the residents of Mountain Home and Elmore County is a slap in the face. The lack of communication and partnership in the past is a huge concern and one I, as a citizen, don't trust the Army Guard to correct. We deserve to preserve our quality of life as much as the Treasure Valley. Previous exercises have proven that may be in jeopardy if the Guard is allowed to proceed with the expansion.

Respectfully,

Courtney Lewis  
208-599-0805



**From:** [FourRiversOffice, BLM\\_ID](#)  
**To:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] maneuvers  
**Date:** Monday, April 5, 2021 4:30:07 PM

---

FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** M&3Gs CG <ciaomargot@gmail.com>  
**Sent:** Sunday, March 14, 2021 2:57 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** [EXTERNAL] maneuvers

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I oppose this type of maneuver on public lands due to destruction of the land and habitat and the change in warfare that will rely less on tanks in the future.  
Thank you -

**From:** [FourRiversOffice, BLM\\_ID](#)  
**To:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] National Guard Tank Use on BLM Lands  
**Date:** Monday, April 5, 2021 4:30:43 PM

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FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** Greg Munther <gmunther12@gmail.com>  
**Sent:** Tuesday, March 16, 2021 2:42 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** [EXTERNAL] National Guard Tank Use on BLM Lands

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

This proposal to run military tanks over 38,000 acres of BLM land should not see the light of day.

Issues (scoping) that must be addressed in any environmental assessment include:

Spread of noxious/invasive species including cheatgrass, medusa head rye and other potential/existing non native species

Address the effects of breaking up the chryocrylic soil surface on arid soils

Damage to existing native vegetation, including all species of sagebrush.

Adverse effects of 12 miles of road construction, including how these roads encourage other uses by the public including facilitating more off road vehicle use

Disturbance and displacement to all wildlife species by improvements (roads) will bring to these parcels

Displacement of the public when these operations take place.

Address why the public is not allowed to drive off road vehicles over public land but the effects of military tanks doing the same thing would be acceptable.

Address how these operations would affect the area when soils are commonly wet in the proposed March and November periods.

Alternatives must include:

Conduct these operations on an existing military base

Lease or buy 38,000 acres of private land as a tank playground

Address why tank operators in other National Guard Units do not require such public land for training

Please add me to your contact list for this proposal;;

Greg Munther

1295 Lena Lane

Missoula, MT 59804

email: [gmunther12@gmail.com](mailto:gmunther12@gmail.com) < Caution-mailto:gmunther12@gmail.com >

**From:** [richard.spotts@blm.gov](mailto:richard.spotts@blm.gov)  
**To:** [William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov)  
**Subject:** Re: [EXTERNAL] My scoping comments for preparation of the Simco Training Area Environmental Assessment  
**Date:** Monday, March 5, 2024 12:24 PM

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F11 - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office  
3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

**From:** William, Michael C <[mwilliam@blm.gov](mailto:mwilliam@blm.gov)>

**Sent:** Monday, March 5, 2024 3:24 PM

**To:** [richard.spotts@blm.gov](mailto:richard.spotts@blm.gov); [William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov); [William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov)

**Subject:** Re: [EXTERNAL] My scoping comments for preparation of the Simco Training Area Environmental Assessment

Mr. Spotts,

Again, thank you for bringing the broken link issue to our attention. The correct link, which will take you to the Idaho Army National Guard website with supporting documents to review, is <https://www.blm.gov/locations/boise-district/development-division/development-division-projects/simco-training-area-environmental-assessment>

Our upcoming website will reflect this correction by early afternoon. Please let me know if you have any other questions.

Mike Williamson

Public Affairs Specialist

Bureau of Land Management - Boise District

Desk: 208-388-2333

cell: 208-473-8354

[mwilliamson@blm.gov](mailto:mwilliamson@blm.gov) <[William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov)>

**From:** Richard Spotts <[rspotts2@gmail.com](mailto:rspotts2@gmail.com)>

**Sent:** Sunday, March 7, 2024 12:20 PM

**To:** [William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov); [William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov)

**Cc:** William, Michael C <[mwilliamson@blm.gov](mailto:mwilliamson@blm.gov)>; [William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov)

**Subject:** [EXTERNAL] My scoping comments for preparation of the Simco Training Area Environmental Assessment

**[This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.]**

March 7, 2021

RE: My scoping comments for preparation of the Simco Training Area Environmental Assessment

Dear BLM officials:

Please accept, carefully consider, respond to, and include in the relevant National Environmental Policy Act (NEPA) project file my following scoping comments for preparation of the Simco Training Area Environmental Assessment (EA).

As the noted, I have visited this area of ELM lands in Idaho, my wife is from Idaho, and many relatives live in Idaho. The Idaho National Guard (ING) is one of Idaho and the nation's most important asset set aside for permanent habitat protection. As such, I am deeply concerned by this Idaho Army National Guard proposal to expand military training including on ELM lands in this NCA. Indeed, I believe that this proposal may conflict with the specific conservation purposes of this NCA. If so, BLM should deny this proposal outright because it does not have the proper legal authority to consider approving it.

Assuming that BLM has some proper legal discretion to consider this proposal, then the Simco Training Area EA analysis, as a minimum, should:

- 1) Identify both the applicant (Idaho Army National Guard) and BLM's separate "purposes and needs for action" (to distinguish BLM's statutory duties to protect the NCA and prevent an arbitrarily narrow statement to improperly limit the consideration of feasible alternatives);
- 2) Explain in detail what level and type of disturbance BLM has to terms of authorizing potentially harmful land uses in the NCA, and whether or how this proposal would specifically conflict to all relevant NCA plan decisions;
- 3) Include one or more action alternatives for detailed EA evaluation where no military training would occur on NCA lands;
- 4) Explain the more relevant statement that the proposal would "... effect loss of training areas due to increases in native shrublands within the Orchard Creek Training Center" and include at least one action alternative for evaluation that would focus on treatment of these training areas' native shrublands rather than needing to harm NCA habitats;
- 5) Explain how each EA alternative would contribute to cumulative impacts on the same potentially affected resources, including soils, vegetation, water quality, sensitive plant species, and wildlife/habitat;
- 6) Given the importance of increasing habitat protection for decreasing sage-grouse populations, explain how each EA alternative may affect grouse habitats directly, indirectly, and cumulatively;
- 7) Given the increasing loss of millions of acres of BLM lands in the West to cheatgrass invasion and habitat converting fires, explain how each EA alternative may affect both the colonization and spread of cheatgrass and the amount of associated habitats that would be at greater risk from future fire conversion (while this proposal may not include live fire exercises, intensive military training clearly poses increased risks from human caused ignitions).

BLM's March 5 news release announcing this scoping comment period, I said "Detailed information on the proposal can be found at <https://www.blm.gov/locations/boise-district/development-division/development-division-projects/simco-training-area-environmental-assessment>

Unfortunately, I tried this web link several times, but it only had the same information as the news release. So I could not locate the referenced "detailed information." If this error is remedied, please let me know so that I can review that information.

Although I support our military, I believe that the military already has more than enough lands set aside for their training purposes. If some of their lands have become overgrown, they can and should manage that situation without the need to encroach on lands designated for conservation. This proposed military training is obviously not compatible with the purposes for designating a NCA. BLM should have enough backbone and integrity to recognize this, and to stand up to protect this NCA.

I hope that my scoping comments are helpful. Please add me to the email notification list for this proposed project and EA.

Thank you very much for your consideration.

Sincerely,

Richard Spotts

255 North 2750 East

Saint George Utah 84790

[rspotts2@gmail.com](mailto:rspotts2@gmail.com) <[William.Michael.C@blm.gov](mailto:William.Michael.C@blm.gov)>

cc: interested parties



**From:** [karensteehof@gmail.com](mailto:karensteehof@gmail.com)  
**To:** [NG ID IDARNG List NGID EMO](#)  
**Cc:** ["Powers, Michael S"](#); ["Kochert, Michael N"](#); ["Ann M Debolt"](#); ["Weldon, Joseph"](#)  
**Subject:** [Non-DoD Source] Simco Training Proposal  
**Date:** Wednesday, March 31, 2021 8:50:19 AM

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Thank you for the opportunity to comment on the Simco Training proposal.

I worry that this expansion will set a precedent for additional expanded training within the NCA. My main concern about this proposal is that the northern boundary of the proposed expanded training area is <100m from the south rim of the east crater of Crater Rings, and the proposed "Dig Site" is only 450 m away from the rim. Crater Rings contains a pair of Golden Eagles, up to 3 pairs of Prairie Falcons, and at least 1 pair of Ferruginous Hawks. The BLM and the Guard need to protect the nesting and foraging habitat of this pair of eagles because we have documented a 34% decline in the number of occupied Golden Eagle territories in the NCA between 1971 and 2016

Karen Steenhof  
18109 Briar Creek Road  
Murphy, Idaho 83650

[karensteehof@gmail.com](mailto:karensteehof@gmail.com) < Caution-mailto:karensteehof@gmail.com >



< Caution-[https://www.avast.com/sig-email?utm\\_medium=email&utm\\_source=link&utm\\_campaign=sig-email&utm\\_content=emailclient&utm\\_term=icon](https://www.avast.com/sig-email?utm_medium=email&utm_source=link&utm_campaign=sig-email&utm_content=emailclient&utm_term=icon) >  
< #DAB4FAD8-2DD7-40BB-A1B8-4E2AA1F9FDF2 >

Virus-free. Caution-[www.avast.com](https://www.avast.com/sig-email?utm_medium=email&utm_source=link&utm_campaign=sig-email&utm_content=emailclient&utm_term=link) < Caution-[https://www.avast.com/sig-email?utm\\_medium=email&utm\\_source=link&utm\\_campaign=sig-email&utm\\_content=emailclient&utm\\_term=link](https://www.avast.com/sig-email?utm_medium=email&utm_source=link&utm_campaign=sig-email&utm_content=emailclient&utm_term=link) >

**From:** [FourRiversOffice, BLM\\_ID](#)  
**To:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] Orchard training area  
**Date:** Monday, April 5, 2021 4:28:17 PM

---

FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

---

**From:** Caleb Strough <caleb.strough@gmail.com>  
**Sent:** Friday, March 5, 2021 9:01 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** [EXTERNAL] Orchard training area

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I'm writing in regards to the proposal to expand the training area for the OTA. This area is critical big game habitat for the winter range, not including all other species.

I used to train out there during my years of service. There is plenty of training land for the military currently, no need to expand and degrade more habitat. It sounds like some bored officer is trying to make a name for themselves.

Caleb Strough

Sent from my iPhone

**From:** [FourRiversOffice, BLM\\_ID](#)  
**To:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**Subject:** [Non-DoD Source] Fw: [EXTERNAL] Tank practice  
**Date:** Monday, April 5, 2021 4:29:30 PM

---

FYI - from Charlotte

Bureau of Land Management  
Four Rivers Field Office  
Boise District Office

3948 Development Avenue  
Boise, Idaho 83705  
(208) 384-3300

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**From:** Tactical Bacon <xymcookie987@gmail.com>  
**Sent:** Friday, March 12, 2021 5:02 PM  
**To:** FourRiversOffice, BLM\_ID <BLM\_ID\_FourRiversOffice@blm.gov>  
**Subject:** [EXTERNAL] Tank practice

**This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.**

Do it. Murica, f yeah.



**From:** [Baun, Charles W NFG NG IDARNG \(USA\)](#)  
**To:** "Joe Woolston"  
**Subject:** RE: [Non-DoD Source] Idaho Army National Guard Simco Training Area Environmental Assessment  
**Date:** Tuesday, March 9, 2021 1:28:00 PM

---

Sorry sir, I noticed there was a typo in comment #2 response. Please see corrected response below.

Comment #2:

Water is an issue out here for everyone. Are you planning to build and use local water resources?

Answer: At this time there are (No) proposed water resource projects.

-----Original Message-----

From: Joe Woolston <jwoolston3@yahoo.com>  
Sent: Tuesday, March 9, 2021 2:23 PM  
To: Baun, Charles W NFG NG IDARNG (USA) <charles.w.baun.nfg@mail.mil>  
Subject: Re: [Non-DoD Source] Idaho Army National Guard Simco Training Area Environmental Assessment

Sweet! Thanks for the quick response.

Sent from my iPhone

> On Mar 9, 2021, at 10:02 AM, Baun, Charles W NFG NG IDARNG (USA) <charles.w.baun.nfg@mail.mil> wrote:

>

> Mr. Woolston, this is a confirmation that we have received your comments and they will be included in the scoping packet and administrative record.

>

> As to your comments:

>

> Comment #1:

> I only ask that you consider your impact on the environment. That is a well known public land area, I, we, and a lot of other people use to shoot guns, ride off-road vehicle, picnic, etc. Are you taking that away from us or will we still have access to the area?

>

> Answer: At this time there are two alternatives. Under Alternative A, public access could be limited up to 30 days per year, but only during training exercises to limit military/civilian conflicts. Under Alternative B there would be no limitations on public access.

>

> Comment #2:

> Water is an issue out here for everyone. Are you planning to build and use local water resources?

>

> Answer: At this time there are proposed water resource projects.

>

> Comment #3:

> Also, my house is within a mile or so of the south border of the area. Hell, we get an air show everyday and we love it so, we're not worried about the noise. Please just don't make a mess out there. Are there checks and balances in place to ensure the troops that use the area will respect the environment?

>

> Answer: If approved, the area would be managed under the BLM and IDARNG. The IDARNG's conservation program oversees all military training activities so that they are done in an environmentally sustainable manner. In addition, the use of the area for military training activities would considerably increase the resources (funding, staff, equipment, wildland fire assets, etc.) available for the management of the area. The OCTC, which has been used and managed by the IDARNG since 1953, has the best residual shrub habitat in the NCA. We would hope to continue this trend in the proposed training area as well.

>  
> Comment #4:  
> Will any of our neighborhoods be affected by direct contact with visiting folks that are training? They should stay pretty much in route to training facilities. Do they plan to convoy bigs vehicles? Our roads don't get much service. Even the plow roughs it up when they come through.  
>  
> Answer: The only road that would be affected would be the 50 ft crossing section on Simco Road between the OCTC and the proposed training area. No other roads would be affected or used for training activities. Standard trucks may use the eastern access for management activities such as monitoring, seeding, clearances etc., but that would be it. No convoy activity is excepted anywhere but the Simco Crossing point.  
>  
> If you have any additional question please feel free to reach out.  
>  
> Respectfully,  
>  
> Charlie Baun  
> Conservation Branch Manager  
> Idaho National Guard  
>  
> Email: charles.w.baun.nfg@mail.mil  
> Office: 208-272-4180  
> Cell: 208-559-5360  
>  
> Example is not the main thing in influencing others, it is the only thing - Albert Sweitzer  
>  
>  
> -----Original Message-----  
> From: Joe Woolston <jwoolston3@yahoo.com>  
> Sent: Monday, March 8, 2021 5:07 PM  
> To: NG ID IDARNG List NGID EMO <ng.id.idarng.list.ngid-emo@mail.mil>  
> Subject: [Non-DoD Source] Idaho Army National Guard Simco Training Area Environmental Assessment  
>  
> Hell yeah! Get the training you need.  
>  
> Comment #1:  
> I only ask that you consider your impact on the environment. That is a well known public land area, I, we, and a lot of other people use to shoot guns, ride off-road vehicle, picnic, etc. Are you taking that away from us or will we still have access to the area?  
>  
> Comment #2:  
> Water is an issue out here for everyone. Are you planning to build and use local water resources?  
>  
> Comment #3:  
> Also, my house is within a mile or so of the south border of the area. Hell, we get an air show everyday and we love it so, we're not worried about the noise. Please just don't make a mess out there. Are there checks and balances in place to ensure the troops that use the area will respect the environment?  
>  
> Comment #4:  
> Will any of our neighborhoods be affected by direct contact with visiting folks that are training? They should stay pretty much in route to training facilities. Do they plan to convoy bigs vehicles? Our roads don't get much service. Even the plow roughs it up when they come through.  
>  
> I would like to observe the Zoom meeting. I'll register today.  
>  
> Very respectfully,  
> Joe Woolston (Ret USAF)  
> Sent from my iPhone



# **2018 Materials**



# **Scoping Meeting Participants**



## SIMCO EAST PUBLIC SCOPING MEETING, 4 APRIL 2018

NAME	CONTACT: EMAIL/ADDRESS (OPTIONAL)	SCOPING ISSUES	Interested Party (Y/N) Requires Contact Info
Katie Fite	katie@wildlandsdefense.org	Wildlife, noise, toxics, military takeover of lands	Yes
Doug Hayes	hayesdb262@hotmail.com	Wildlife	



**SIMCO EAST PUBLIC SCOPING MEETING, 5 APRIL 2018**

<b>NAME</b>	<b>CONTACT: EMAIL/ADDRESS (OPTIONAL)</b>	<b>SCOPING ISSUES</b>	<b>Interested Party (Y/N) Requires Contact Info</b>
Roy & Rita Galbreath	rgalbreath@msn.com		No
Brian & Lori Reid	cessnabelle@gmail.com		
Dale & Dee Key	dalekey99@yahoo.com		No
Linda Ady	linda@tommyady.com	Noise	Yes
Tom Ady	bigd@tommyady.com	Noise	Yes
Mike Reid	reidpatch@gmail.com	Noise	Yes
David Patch	dace@glasscockpitaviation.com	Noise	Yes
Cammie Patch	cammie@glasscockpitaviation.com	Noise keeps up at night	Yes
Cythina Reid	reidpatch@gmail.com	Noise	Yes
Donna Bennett	beattle@att.net		Yes
George Bennett	beattle@att.net		Yes
Jay Weaver	bruneaugsp@hotmail.com	Fire, noise, dust, tumgleweeds	Yes

## **Comment Letters**



# ADA COUNTY

COMMISSIONERS'  
OFFICE  
200 W. Front Street  
Boise, Idaho 83702  
(208) 287-7000  
Fax: 287-7009  
bocc1@adaweb.net  
www.adacounty.id.gov

April 30, 2018

*Via Email: charles.w.baun.nfg@mail.mil*

Charles Baun CIV  
IDARNG Conservation Branch Manager  
4715 S. Byrd St.  
Gowen Field, BLDG. 518  
Boise, Idaho 83705

RE: Proposed Simco East Training Area

Dear Mr. Baun:

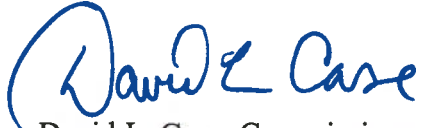
The Board of Ada County Commissioners has reviewed the proposed Simco East Training Area materials you supplied us with and would like to extend our support for the project.

The Idaho National Guard and its facilities at Gowen Field and elsewhere in the State of Idaho provides employment for many Idaho Residents. We support the mission of the Idaho National Guard and enhanced and continued training opportunities that the Orchard Combat Training Center and the proposed Simco East Training Area will provide.

Thank you for including us in your discussion.

Sincerely,

ADA COUNTY BOARD OF COMMISSIONERS

  
David L. Case, Commissioner

  
Jim Tibbs, Commissioner

  
Rick Visser, Commissioner



OWYHEE COUNTY BOARD OF COMMISSIONERS  
COURTHOUSE P.O. BOX 128 MURPHY, ID 83650-0128  
TELEPHONE (208) 495-2421

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District 1 –Jerry Hoagland-P O Box 128, Murphy, ID 83650 318-8308  
District 2 –Chairman-Kelly Aberasturi-P O Box 128, Murphy, ID 83650 249-4405  
District 3 –Joe Merrick-P O Box 128, Murphy ID 83650 250-9005

March 26, 2018

Idaho Army National Guard  
Environmental Management Office  
Attn: Charles Baun, Conservation Branch Manger  
4715 S. Byrd St., Bldg. 518  
Boise, Idaho 83705-8095

Re: Owyhee County Scoping Comment on Idaho Army National Guard Simco-East Maneuver Training Area and ROW Environmental Assessment (EA)

Dear Mr. Baun:

Owyhee County, Idaho provides the following comments for you as our scoping comments on the Idaho Army National Guard Simco-East Maneuver Training Area and ROW EA.

Owyhee County is also potentially affected by impacts to the economy of the Treasure Valley which lies in close proximity to our county. Economic impacts to the larger population of the Treasure Valley has impacts to our regional economy and to our county economy. The Idaho Army National Guard is a major employer in the Treasure Valley. As such, it is essential to maintain the needed training areas required for maintenance of unit combat capabilities. If those training areas and capabilities are lost, we will see local adverse economic impact on southwest Idaho and the broader issue of national adverse impact from loss of the combat ready units the United States Department of Defense relies upon.

As citizens of the State of Idaho, Owyhee County citizens benefit from a strong military presence in the state and in the Treasure Valley. National Guard units have both a state and federal mission. Maintaining a viable Army National Guard presence at Gowen benefits the state mission in terms of available forces for local situations and emergencies.

Maintaining significant Army National Guard units, such as we currently have, requires an excellent range complex in very close proximity. Prior to the encroachment and other problems noted in the Scoping Document, that is what we had in the Orchard Combat Training Area. However, the items noted in the Scoping document have diminished the effectiveness of the training that can be conducted there. We believe the proposed action will significantly reduce, or eliminate, the following concerns noted in the document.

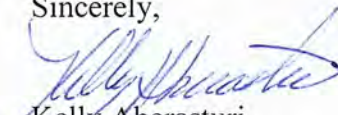
- Safety hazards for soldiers associated with increased public shooting in the OCTC;
- Maneuver training conflicts associated with the increased amount of public use lands within the OCTC;
- Increased destruction of IDARNG equipment by public users;
- Limitations on the amount of available, heavy maneuver training lands within the OCTC; and
- Continued changes in mission requirements for the IDARNG to meet DA needs.”

We believe the solution proposed by the IDARNG to the above and other issues, which includes obtaining use of state lands and a BLM ROW to access those lands will be beneficial and should be supported. The proposal would reduce impacts from military training within the NCA on BLM-managed lands by shifting heavy maneuver training activities to lower valued habitat on IDL lands. We support this approach as it would increase revenue to the state endowment fund, while maintaining needed training area for the IDARNG.

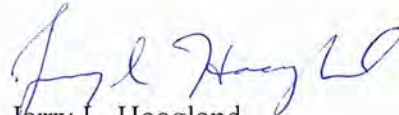
We also support, as necessary and beneficial, the proposed BLM ROW, the purpose of which is allow access to BLM-managed lands by the IDARNG for the construction, use, and maintenance of 5.62 miles of unpaved roadway to access IDL lands from Simco Road.

We strongly support the proposed action as being beneficial for the military and for the community and state.

Sincerely,



Kelly Aberasturi  
Chairman



Jerry L. Hoagland  
Commissioner



Joe Merrick  
Commissioner



**IDAHO NATIONAL GUARD  
JOINT FORCE HEADQUARTERS  
ENVIRONMENTAL MANAGEMENT OFFICE  
4715 S. BYRD ST., BLDG. 518  
BOISE, IDAHO 83705-8095**



March 13, 2018

**Correction Notification:** Incorrect BLM Website Address Related to the Idaho Army National Guard Simco-East Maneuver Training Area and ROW Environmental Assessment (EA)

Dear Public/Agency Participant:

As an interested party you received a letter dated 9 March 2018 soliciting comments for the Idaho Army National Guard's (IDARNG) proposal to use lands owned by the Idaho Department of Lands (IDL) near the Orchard Combat Training Area (OCTC) for heavy maneuver training. The Bureau of Land Management (BLM) website identified in the announcement was incorrect. Please use this address to access the BLM website (<https://go.usa.gov/xnhYw>).

Any individuals, groups, or organizations wishing to comment on this process should attend the public scoping meetings or submit written comments to:

Idaho Army National Guard  
Environmental Management Office  
Attention: Charles Baun (Conservation Branch Manager)  
4715 South Byrd Street, Bldg. 518  
Boise, Idaho 83705-8095

Or

Bureau of Land Management  
Morley Nelson Snake River Birds of Prey National Conservation Area  
Attention: Charlotte Alexander  
3948 Development Ave.  
Boise, ID 83705

Electronic comments should be sent to [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) by close of business on May 1, 2018.

*Before including address, phone number, email-address, or any other personal identifying information in your comments, be advised that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that the BLM withhold personal identifying information from public view, the BLM cannot guarantee it will be able to do so. If you wish us to withhold your personal information you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, available for public disclosure in their entirety.*

I am writing with my concerns over the Idaho Army National Guard IDARNG and the State department of lands proposed heavy maneuver range that would be built and used near my home. This range will affect the quality of me and my family's life and ability to enjoy our property. This will occur through an increase of fire risk and worry, blowing dust and tumbleweeds, noise, lost property value, and tactical vehicles leaving the area. These are just a few of my concerns and I would like the IDARNG to address and explain how they will mitigate all these issues including loss of property value. As a Biologist that worked on the current IDARNG OCTC range for 26 years I have spent more time on the ground on the OCTC than anybody in the IDARNG and know exactly what kind of impact heavy maneuver training has on the environment and the lands around the range. I have used this learned knowledge as a basis for my concerns.

**Lost Property Value:** The proposed heavy maneuver range has the potential of not only lowering the property values of homes that are near the proposed range but also affect the ability to sell one's home and also the ability to enjoy that home. It will also affect the enjoyment of the home and the quality of life for a very long time as the first lease would be 20 years. I know for a fact I would not have considered buying my current home if this range was in place. I am sure I am not the only one that feels this way. This is not a case of the homes built around an existing range but a range developed near existing homes. What gives the IDARNG and the State Department of Lands the right to affect my quality of life and property values in a long term negative way. How is the IDARNG going to mitigate this loss and effect?

**Fire:** Heavy maneuver training will increase the risk of fire impacting the surrounding properties and homes. This can occur due to actual maneuver training and use of pyrotechnics along with increased flammability of vegetation caused by training damage promoting annuals. During 26 years of working for the IDARNG on the OCTC I have seen dozens of fires caused by training. This has the ability to affect mine and my neighbor's homes as we are the closest homes to the proposed training area. As of now none of the homes are within a fire district as we had not been allowed into one. So if a fire occurs nobody will respond as shown by my neighbor's house burning to the ground last summer. I do understand the IDARNG has wildland fire assets that will be present during training but during a high wind event they may not be able to prevent a fire leaving the training area as has happened on the OCTC several times. A very good example of what could happen due to training is what happened at Camp Williams Utah another National Guard training area. Troops training during high wind conditions started a fire that they were unable to contain which left the training area caused several thousands of people to be evacuated and burned down many homes. Luckily no body was killed or injured but a fire leaving the proposed training area has the ability to kill and destroy property and the heavy maneuver training will increase fire risk.

Since this will increase fire risk what will the IDARNG do to protect nearby homes. Are they going to facilitate these home being included in a fire district? Will they use ACUB money to work with the property owners or just hope nothing happens. Will the IDARNG pay for property damaged by a fire originating on the training area or will the State Department of Lands be responsible as the land owner? Bottom line what will the IDARNG do to mitigate these risks and issues to the nearby homes.

Dust : I would like the IDARNG to address how you will control windblown dust leaving the proposed training area and impacting nearby properties. My experience after working for the IDARNG for 26 years they have not been able to control soil erosion and dust leaving the training area. Heavy maneuver training will disturb the soil and that leads to loose soil and dust during high winds which are common.

Exotic Annuals: With continual yearly disturbance to the soil from heavy maneuver training you will have an increase in disturbance adapted annuals like Russian Thistle, Cheatgrass and Burr buttercup. This leads to an increase in fire risk and Russian Thistle blowing off the training area stacking up on fences and houses. This is already a big problem caused by poor management of BLM and State lands. Currently me and my neighbors have several feet thick of Russian Thistle on our fences and against our houses and this training will only add to the problem.

I would also like the IDARNG to address how they plan on conducting rehab on disturbed areas. I conducted rehab for the IDARNG for 26 years and know how extremely difficult it is to have a successful rehab in the area due to climate conditions. Currently the IDARNG does not have any before and after data showing and large rehab project over 100 acres that has been successful. So how does the IDARNG plan on completing successful rehab projects?

Noise: Heavy maneuver training and use of pyrotechnics will produce noise that will impact nearby properties especially during night training. Currently from my home I can hear the IDARNG training on the OCTC. This new area will be much closer and I will be able to see and hear the training. This has the potential to affect my ability to enjoy my property and impact my quality of living. Now I can call the sheriff when nearby noise is disturbing my ability to sleep. So do I call the sheriff when the IDARNG training is causing a disturbance? Please address how the IDARNG is going to prevent noise from affecting the quality of life at my home. Will they be limiting training at night?

Use by other units: The current proposal states that this proposed training area is needed by IDARNG units to be able to train to meet the standards imposed by the Army. If so will there be other units from other states training on the land not in conjunction with IDARNG units like they do on the OCTC. Will regular non guard units also be allowed to train on this land. I can understand the IDARNG troops needing to train but if this is the case why would we want out of state units that can train in their states affecting the quality of my life and property?

Helicopter use: Will air units of the IDARNG be using this area for training as they use the OCTC? If so how will the guard mitigate noise to nearby homes?



Public Access: At the meeting it was stated the State Department of Lands will fence and restrict access to the public. As a sportsman I strongly object to the closing of public lands. What will the IDARNG and State Department of Lands do to mitigate the loss of hunting and recreational access?

BLM: By granting a right away to the IDARNG to access the proposed training where heavy maneuver training will occur in a new area not conflict with the goals of the NCA to protect birds of prey and habitat. As a biologist working for the IDARNG for 26 years I have seen this training first hand and know how destructive it is to the habitat. How does the BLM justify approving this habitat destruction that has the potential to effect birds of prey?

Training: What is the IDARNG going to do to prevent tactical vehicles from leaving the proposed training area and impacting nearby land owners along with protecting sensitive sites? During my 26 years with the IDARNG I have seen where dozens and dozens of vehicles have left the training area and impacted the adjacent lands, a good example was the unit that decided to leave the OCTC and caused damage to BLM lands and got a tactical vehicle stuck trying to drive a road into the Snake River canyon. They spent days causing damage that has still not been repaired before they were discovered in the canyon where they are not allowed and the vehicle removed. Or the unit that heavily damaged a native American site even after being told the area was off limits and marked to prevent damage. Once again this did not stop the unit from ignoring the fact the area was off limits and damaging the site. The IDARNG seems to follow the "We will do what we want and ask forgiveness after the fact". I have personally seen this many times and have had to do environmental clearances after the damage or project has occurred which in the case of a project were supposed to be completed prior to project construction. Another good example of this attitude from the IDARNG is the crossing on Simco road where they did not get permission to build the crossing, built it anyway and received a Cease and Desist order from the BLM. So how is the IDARNG going to prevent damage to sensitive areas and vehicles leaving the area?

In conclusion these are just a few of my concerns over the proposed IDARNG heavy maneuver training range. I would like the IDARNG to address these issues and explain how they are going to mitigate all these issues that will affect my quality of life and the other home owners.

James Weaver

14053 SW Parker Dr.

Mountain Home, Idaho

83647

## Baun, Charles W NFG (US)

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**From:** Hoffman, Amanda <alhoffman@blm.gov>  
**Sent:** Monday, April 2, 2018 10:34 AM  
**To:** Baun, Charles W NFG (US); Stitt, Dennis C Jr LTC USARMY NG IDARNG (US)  
**Cc:** Charlotte Alexander  
**Subject:** [Non-DoD Source] Fwd: [EXTERNAL] IDANG Simco OTA Expansion and ROWs EA and MHAFFB Urban CAS over Nine Cities EA Comments

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

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FYI

Thanks,

Amanda Hoffman  
Morley Nelson Snake River Birds of Prey  
National Conservation Area Manager  
208-384-3336  
alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov >

----- Forwarded message -----

**From:** **katie fite** <katie@wildlandsdefense.org < Caution-mailto:katie@wildlandsdefense.org >>  
**Date:** Sun, Apr 1, 2018 at 12:19 PM  
**Subject:** [EXTERNAL] IDANG Simco OTA Expansion and ROWs EA and MHAFFB Urban CAS over Nine Cities EA Comments  
**To:** Lara Douglas <ledouglas@blm.gov < Caution-mailto:ledouglas@blm.gov >>, Amanda Hoffman <alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov >>, ng.id.idang.list.ngid-emo@mail.mil < Caution-mailto:ng.id.idang.list.ngid-emo@mail.mil >, "Shaver, Noelle C Gs-12 Usaf Acc 366 Ces/ Ceie" <noelle.shaver@us.af.mil < Caution-mailto:noelle.shaver@us.af.mil >>, Tanya Thrift <tthrift@blm.gov < Caution-mailto:tthrift@blm.gov >>, "ROBERTSON, SHERI L CIV USAF ACC 366 CES/CEIE" <sheri.robertson@us.af.mil < Caution-mailto:sheri.robertson@us.af.mil >>  
**Cc:** katie fite <katiemesa@gmail.com < Caution-mailto:katiemesa@gmail.com >>

DEAR BLM, NATIONAL GUARD and MHAFFB:

Here is a summary of some concerns about the Idaho Army National Guard Simco-East Maneuver Area and ROW EA WildLands Defense recently posted. Please include and fully analyze these concerns this as part of WLD's public comment on the IDANG EA. Please also include these concerns and fully analyze these as public comments in the MHAFFB Urban CAS War Game Range EA.

Please let me know you have received this e-mail.

Thank you,

Katie Fite  
Public Lands Director  
WildLands Defense  
PO Box 125  
Boise, ID 83701  
208-871-5738

## NATIONAL GUARD EXPANSION PROPOSAL THROUGH BIRDS OF PREY AREA ROARS BACK

Wildlife and public lands in the Snake River Birds of Prey Area are once again threatened by an Idaho Army Guard expansion proposal. The Guard already has the 130,000 acre Orchard Training Range (OTA) in the middle of the Snake River Birds of Prey Area. Fires started by the Guard on the OTA that spread onto the Birds of Prey lands have been responsible for large-scale losses of critical sagebrush habitat in the Birds of Prey Area. NOW the Guard wants access to even more lands to degrade. Part of the reason claimed for the new expansion is that the lands they have already torn up need to be “rested”. As the vegetation was destroyed from Tank/Bradley fighting vehicles and other activities - portions of the OTA have become dustbowls, with clouds of white caliche soil billowing in the wind and eroding away.

So the Guard (and the state of Idaho under Butch Otter) have concocted a scheme for the Guard to lease State land by Mountain Home for a new area to tear up. In order to access that site from the Orchard Range area, the Guard wants the Snake River Birds of Prey BLM Manager to grant new Rights-of-Way on roads across BLM lands, and allow upgrades. The ROWS and the increased military activity over the landscape will cause further disruption to Wildlife and the ecosystem of the Birds of Prey Area National Conservation Area. This activity will harm the raptors and other wildlife species the Birds of prey Area is supposed to be protecting for the public.

What the proposal DOES NOT talk about is that a primary reason the lands at the existing Orchard Training site are so torn up, and the Guard wants even more land to use, is that the Idaho Guard PROFITS from having other Guard Units, and branches of the Military, other train at the Orchard site. They get paid by others who train here.

In September 2017, we posted about this scheme when it first surfaced. The proposal was withdrawn a month or so later. Regrettably it has now has come roaring back. See: Caution-  
<https://www.facebook.com/wildlandsdefense/posts/1957941537757480> < Caution-  
<https://www.facebook.com/wildlandsdefense/posts/1957941537757480> >

In the meantime, actions of Idaho's Mike Simpson in Congress have resulted in legislating a new high voltage transmission line for Idaho Power running through the Birds of Prey Area. The Birds of Prey Area is suffering habitat death by a thousand cuts, and it is time this STOPS.

PUBLIC MEETINGS for the GUARD OTA expansion are April 4, 2018, from 4:00pm to 7:00pm at the Wyndham Garden Boise Airport (3300 S Vista Ave, Boise, ID 83705 < Caution-  
<https://maps.google.com/?q=3300+S+Vista+Ave,+Boise,+ID+83705&entry=gmail&source=g> > ). Also, Elmore County on April 5, 2018, from 4:00pm to 7:00pm at the Hampton Inn (3175 Foothills Ave, Mountain Home, ID 83647 < Caution-  
<https://maps.google.com/?q=3175+Foothills+Ave,+Mountain+Home,+ID+83647&entry=gmail&source=g> > ).

PLEASE COMMENT on the proposal. Deadline May 1.

E-mail Comments to: [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) < Caution-<mailto:ng.id.idarng.list.ngid-emo@mail.mil> >  
And please Copy your comments to BLM's Birds of Prey Area Mgr: [alhoffman@blm.gov](mailto:alhoffman@blm.gov) < Caution-  
<mailto:alhoffman@blm.gov> >

The Scoping proposal is supposed to be here on BLM's Website: Caution-  
<https://eplanning.blm.gov/.../eplanning/planAndProjectSite.do...> < Caution-  
<https://l.facebook.com/l.php?u=https%3A%2F%2Feplanning.blm.gov%2Fepl-front-office%2Feplanning%2FplanAndProjectSite.do%3FmethodName%3DrenderDefaultPlanOrProjectSite%26projectId%3D89114%26dctmId%3D0b0003e880f9dfd6&h=ATNuVUzslT7OTsSvzc50JjLVwiSPmoJc0STkuROjQJYHr-nrwlgN3FZ8NXA5J7zhbBDM7oNh2ISZVswff5O7QErK1aE1CxB3AmZ-djyYXuDFuuFRaqq2Hzy3lDOZCCiYlgykVicP7eLGN1uPzN1C> >

However, when one clicks on “Documents” today (Sunday 10:25) one gets a URL not working message. SO we will post photos of the Hard Copy we received with this Post.

## SAMPLE COMMENTS

Here are sample comments to submit.

RE: Idaho Army National Guard Simco-East Maneuver Training Area and ROW EA

BLM should not grant the Rights-of-way to the National Guard in the Snake River Birds of Prey National Conservation Area. Native raptors, other wildlife, and rare endemic plants like the ESA-listed Threatened slickspot peppergrass are already under serious stress from habitat damage and loss — and the combined effects of grazing, weeds, fire, military and other disturbance in the SRBOPA.

The Guard proposal will increase Wildlife habitat damage and fragmentation, noise, vehicle deaths and disruption of behavior. This will cause further declines in habitat conditions and animal populations.

The Guard proposal will increase wildfire fire risk and weed expansion in the Birds of Prey landscape.

BLM must conduct current baseline studies of the condition of Wildlife habitats and status of Wildlife populations across the Birds of Prey Area. BLM must then determine how much more, if any, additional disturbance Wildlife can tolerate.

The proposal will also intrude on public lands recreation. It will introduce a new safety hazard on SIMCO Road, where the Guard seeks a Tank Crossing. (Note that Low level Nuclear Waste is hauled on Simco road through the Birds of Prey Area to a disposal site in Owyhee County near the Snake River). There are also many dangerous materials the Guard may be using in training. The impacts of all these materials and also potential contaminants or hazardous material carried on military vehicles must be fully assessed.

An EIS is essential to take a hard and complete look at all direct, indirect and cumulative effects of the Guard proposal on the Birds of Prey Area, wildlife populations, recreation and public health and safety. This must include analysis of adverse effects of other military expansion proposals in Idaho.

BLM must require that the Guard reveal the full amount of non-idaho Unit Guard/Military training that takes place at Orchard, and the amount of any fees the Guard receives for this use. The full impact that of non-idaho use at OTA is having must be fully detailed and assessed.

A full range of Alternatives to the proposal must be considered. These include: Reduce out of state Military use of the OTA. Make more efficient use of the existing 130,000 acre OTA. Do better dust abatement on the lands already torn up. Use more simulations in training. Work with BLM to reduce public “intrusion” on the military. It is absurd that the Guard notes high recreational use of the SRBOPA, blames the public for most of its problems, and now seeks to further worsen public conflicts by its expansion proposal. This is the military, for goodness sake. It can control public intrusion if it wanted to. Any combination of the above alternatives.

The Guard Scoping letter blaming the public for many problems to justify a need for the expansion. The reasons for the expansion are given as :

Safety hazards associated with public shooting; Maneuver training conflicts with the increased about of public use lands; increased destruction of OTA equipment (??? - has someone shot up a sign or something?); and changes in Guard and military mission requirements.

The full terms of a State lease must be provided. Who will be responsible for Clean-up, as most Military Ranges have hazardous contaminants.

Any foreseeable changes to activities must be fully revealed and assessed. For example, will any activity here be related to the Urban CAS War Game Range proposal?

The State lands the Guard seeks to access are right next to the town of Mountain Home, and very close to the Freeway. They are much too close to human habitation and high use areas for Bradley fighting vehicle and other military activity to take place. Some residents of Mountain Home already complain about OTA noise, night light flashes (the Guard uses white phosphorus on the OTA), etc.

BLM must also consider the direct, indirect and cumulative effects of the OTA expansion on wildlife, recreation, public health and safety. This analysis must include assessment of the barrage of Military expansion proposals targeting southern Idaho at present - and their potential impact on local and regional populations of wildlife, public lands recreation, and public health and safety.

BLM must present and analyze the Guard and military mission requirements that are referred to in the OTA Scoping document. Secretary of Defense Mattis was in Mountain Home in January and complained about public intrusion on Military Ranges. Was he referring in part to this? The month following Mattis’ visit, the Air Force’s Urban CAS War Games Proposal Range over a million Idaho residents was proposed. The State lands are well within the Urban War Games 15 Nautical Mole circle around the town of Mountain Home. Are both these proposals related to the Mattis visit. Is there an immense Military Expansion Plan that all of the current proposals are part of? If so, all foreseeable actions and effects must be analyzed the in the OTA NEPA process.

Much clearer maps that show the Birds of Prey Area, and just what is being proposed, must be provided.

Any other comments you might want to add.

## SOUTHERN IDAHO IS THE TARGET OF A HUGE MILITARY TRAINING GRAB

This Army Guard OTA expansion proposal is part of a barrage of militarization schemes proposed across southern Idaho right now. It appears Idaho politicians (Congressional delegation, Otter and Boise Mayor Bieter's lust for basing F-35 War Planes in Boise have opened the floodgates for the military thinking Idaho residents, public lands and wildlife are expendable.

Just in the past 2 years the Military Expansion proposals in southern Idaho include:

- The 2016 MHAFB Convoy EA that allows portions of state Highway 51 and the Bruneau Desert main access road to public lands to be periodically closed for "Convoy Training". This also made several other changes - including building 6 new Urban CAS sites on Juniper Butte as well as one at a No Drop site. The Convoy EA also rejected as Controversial an Urban CAS alternative for Boise, Glens Ferry, and Mountain Home - and never analyzed it. The current MHAFB DOPAA falsely claims it did. The military is not telling the truth in its Urban CAS DOPAA.
- The 2018 ID Air Guard led F-35 EIS. Despite large-scale and growing ID citizen opposition, ID being rejected in 2012 for F-35 basing, and Idaho NOT being chosen for basing of F-35s by the AF Review folks in 20-17, the ID Air Guard still seeks to impose noxiously loud F-35 War Planes on the Boise airport— driving people out of their homes, de-valuing property, imposing unhealthy and hearing impairing noise over many area schools, etc. The F-35s planes will also be flying out to the Remote Owyhee Ranges inflicting extreme levels of noise and overflights on top of sage-grouse, bighorn sheep and other wildlife.
- The 2018 Urban CAS War Game Range proposal over 9 Idaho cities, and a million people. This involves an unprecedented radical expansion of a military War Game air, ground and training Range over a vast area of southern Idaho from Meridian to Burley. It will impact and endanger a million or more people. The OTA State land proposal underlies the Mtn Home Urban CAS flight activity zone.
- The December 2017 proposal to beddown MORE Singapore War Planes at MHAFB. Interestingly, the Urban CAS DOPAA stated that Urban CAS training at the Owyhee Ranges is 9.5% of the total MHAFB Training, and the Singapore 2017 Beddown proposal states this will increase remote range use by 14%. Is Urban CAS being shifted over Idaho cities to make way for foreign training at existing Ranges?

There are likely other proposals we don't know about - as we did not receive the additional Singapore beddown info - and instead stumbled across it on-line. WHAT ELSE IS IN STORE?

## Baun, Charles W NFG (US)

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**From:** Amanda Hoffman <alhoffman@blm.gov>  
**Sent:** Tuesday, April 10, 2018 6:29 PM  
**To:** Baun, Charles W NFG (US)  
**Subject:** [Non-DoD Source] Fwd: [EXTERNAL] Orchard Training Expansion - Need for an EIS  
**Attachments:** ATT00001.txt; ATT00001.htm; Orchard EIS.pdf; ATT00002.htm

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

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Sent from my iPhone

Begin forwarded message:

**From:** katie fite <katie@wildlandsdefense.org < Caution-mailto:katie@wildlandsdefense.org > >  
**To:** <ng.id.idang.list.ngid-emo@mail.mil < Caution-mailto:ng.id.idang.list.ngid-emo@mail.mil > >, Amanda Hoffman <alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > >  
**Subject:** [EXTERNAL] Orchard Training Expansion - Need for an EIS

Hello,

I came across this Guard EIS.

The 2018 proposal for major expansion of the Guard Training area causing wildlife habitat disturbance and destruction through use of Bradley fighting vehicles, tanks, etc. necessitates an EIS.

A long-term large state land lease is also a controversial, precedent-setting action.

Bringing in forces from all over to train at OTA is also a matter of considerable concern.

BLM issuing Rights-of-ways to facilitate these activities is cause for significant environmental concern, as the activities will degrade, diminish and destroy raptor and sensitive species habitats within the SRBOPA.

This is made even worse - as the "need" appears to be so the Guard can bring in more Units and military branches, and profit. So it is not even necessary for the Idaho Guard.

Yet the SRBOPA legislation describes the use of the public land by the Idaho military/Guard, and not by other DOD entities.

Please place these comments in the OTA Expansion project file and as comments on the NEPA process.

Thank you,

Katie Fite  
Public Lands Director  
WildLands Defense  
PO Box 125  
Boise, ID 83701

## Baun, Charles W NFG (US)

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**From:** Amanda Hoffman <alhoffman@blm.gov>  
**Sent:** Tuesday, April 10, 2018 4:33 PM  
**To:** Baun, Charles W NFG (US)  
**Subject:** [Non-DoD Source] Fwd: [EXTERNAL] Radical Expansion proposed at OTA

**Follow Up Flag:** Follow up  
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Begin forwarded message:

**From:** katie fite <katie@wildlandsdefense.org < Caution-mailto:katie@wildlandsdefense.org > >  
**Date:** April 9, 2018 at 9:16:32 PM MDT  
**To:** <ng.id.idang.list.ngid-emo@mail.mil < Caution-mailto:ng.id.idang.list.ngid-emo@mail.mil > >, Amanda Hoffman <alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > >  
**Subject:** [EXTERNAL] Radical Expansion proposed at OTA

Dear BLM and National Guard,

Pleas enter these concerns in the OTA expansion and BLM ROW issuance project record.

Here the **Guard** states they already have a large amount of land:

"We have a large amount of land that can be used to conduct maneuver training with our tracked vehicles. With this heavy maneuver land and our ranges, the OCTC is a great place to come," LTC Hickey said. What started out as a small, local range is now a large, generally self-contained area. The OCTC has its own wastewater plant, well, and generator backup. "The OCTC is kind of our own city," LTC Hickey said".

Large-Scale expansion planned:

"The OCTC is expanding its capability to train units, but perhaps more importantly, the training center is expanding its role within the National Guard. "Going into the future, the National Guard is looking at possibly making us the premier heavy maneuver training center, where the ARNG's 7th Armored Brigade Combat Teams (ABCT) and two Stryker Brigade Combat Teams (SBCT) may come to train, due to the large expansive training area that we have," LTC Hickey said. The ABCTs are the Army's primary armored force. An ABCT consists of seven battalions and contains both M1 Abrams tanks and M2 Bradley infantry fighting vehicles (IFVs), M109A6 Paladin self-propelled artillery systems, and armored personnel carriers, which operate in a supporting role".



AND:

"To support units coming for training and mobilization, the OCTC will need to expand its infrastructure. "We are looking at Fort Irwin National Training Center in California for examples of how to support rotational training units. They have large infrastructure to support rotational training units—barracks, mess pads, laundry facilities, and so on. What sets us apart is the ranges and the maneuver land that we have. The ABCTs need a lot of land to be able to maneuver their tanks and complete the required training," LTC Hickey said.

"For the next couple years, we are looking at hosting two brigades per year, which is something we have done at various times in the past," LTC Hickey continued. Each brigade is around 4,000 people. Depending on what type of rotation the brigade is doing, and the number of support elements, a brigade could bring 4,000 to 6,000 people to the OCTC for 30 to 60 days. "Where bed space really comes into play is with mobilizations and training support personnel, since training units typically lodge under austere conditions. If we will be doing mobilizations from the OCTC, we will need the infrastructure to support that mission." With the added billeting, the OCTC's total bed space is now 880".

AND:

"A 30-minute drive away, adjacent to the Boise Airport is Gowen Field, headquarters of the Idaho National Guard and home of the 124th Fighter Wing. Despite the fact that the OCTC and Gowen Field are not physically connected, the two training centers are considered one installation. "Between the OCTC and Gowen Field, we currently have more than 3,000 beds in total. We are looking at increasing the life support and the logistical infrastructure to house an entire brigade at the OCTC. The long-range plan is to build up to the capacity of 9,000 beds between the OCTC and Gowen Field to support mobilizations and units coming through for training," LTC Hickey said".

AND:

"If not done properly, an expansion can strain or damage the natural environment. The OCTC is situated in the middle of a national conservation area for birds of prey. Established in 1993, the conservation area, now called the Morley Nelson Snake River Birds of Prey National Conservation

Area, covers close to 485,000 acres and is managed by the Bureau of Land Management (BLM). "We have one of the largest raptor populations in the world: falcons, golden eagles, bald eagles, owls, and hawks," LTC Hickey said. The OCTC has made some areas with rehabilitated plant or animal habitat off-limits to training".

AND:

"At 143,000 acres, the OCTC has enough land that it can rotate training, avoiding undue stress on the land. "We are working with other stakeholders, such as the BLM and Idaho Department of Lands to expand the total area by **up to 29,000 acres**, which will enable the OCTC to further protect the critical habitat by reducing the concentration of maneuver impact. We are doing the rehabilitation that needs to be done after a unit trains out here, in order to keep the vegetation needed to sustain the habitat".

There is no way the habitat will be sustained with such an expanded military footprint and presence here.

WHY does the scoping letter for the proposal only mention around 14,300 acres? It appears the Guard is violating NEPA by incrementally piecing into place segments of a much larger, connected plan.

WHERE are the other 15,000 acres located? Does the Guard plan to takeover BLM lands in the SRBOPA?

WHAT else is planned? Clearly an EIS is **required** for analysis of all the **direct, indirect** and **cumulative** effects of this radical military **footprint** expansion here.

Despite the large amount of land and expansive training area described repeatedly in the article, the Guard wants more. This runs counter to the Birds of Prey Legislation, and the ability of this fragile arid landscape to sustain the Guard's constant and escalating battery of impacts. The use of the land is supposed to be for the Idaho military - not profiteering by the Truck Stops on the Freeway where Guard people may stop, or by local contractors. There is no need to site a grandiose deployment center here -further straining and breaking natural resources - from very scarce water, to the sensitive raptor habitats and cultural sites.

It is clear an EIS must be prepared, and all the potential actions the Guard is planning for this are must be laid on the table,and fully assessed.

Sincerely,

Katie Fite  
Public Lands Director  
WildLands Defense  
PO Box 125  
Boise, ID 83701

<Orchard Radical Expansion Planned ARNG 2018 Installations.pdf>

<ATT00001>

## Baun, Charles W NFG (US)

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**From:** Amanda Hoffman <alhoffman@blm.gov>  
**Sent:** Tuesday, April 10, 2018 4:33 PM  
**To:** Baun, Charles W NFG (US)  
**Subject:** [Non-DoD Source] Fwd: [EXTERNAL] RE: Proposed OTA Expansion

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

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Sent from my iPhone

Begin forwarded message:

**From:** Inna S. <ivserdiu@yahoo.com < Caution-mailto:ivserdiu@yahoo.com > >  
**Date:** April 10, 2018 at 11:56:28 AM MDT  
**To:** "ng.id.idang.list.ngid-emo@mail.mil < Caution-mailto:ng.id.idang.list.ngid-emo@mail.mil > " <ng.id.idang.list.ngid-emo@mail.mil < Caution-mailto:ng.id.idang.list.ngid-emo@mail.mil > >, Amanda Hoffman <alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > >  
**Subject:** [EXTERNAL] RE: Proposed OTA Expansion

Please enter these concerns in the OTA expansion and BLM ROW issuance project record.

I object to OTA expansion for many reasons.

First, nobody REALLY needs it. These tanks are not really used anywhere in modern warfare, because they are too heavy to ship overseas. The only purpose of the proposed expansion is to use up the funds increase from Trump administration to the military - so shortage of funds can be claimed again, and another increase in funding is requested for the next year. Save the taxpayers money and do not expand the military training.

Second, I do not want the military to tear up more of PUBLIC LANDS, because they are also mine.

Third, the perpetual wars that US Military is running abroad do not bring peace to anyone ever anywhere. And therefore I am against expanding the OTA training area in preparation for new wars.

With best regards,

Inna Patrick  
Boise, Idaho.



## Baun, Charles W NFG (US)

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**From:** Hickey, Kevin T LTC USARMY NG IDARNG (US)  
**Sent:** Tuesday, April 10, 2018 7:29 PM  
**To:** Baun, Charles W NFG (US)  
**Cc:** Stitt, Dennis C Jr LTC USARMY NG IDARNG (US); Borders, Christopher L Maj USAF 124 FW (US); Rasmussen, Thomas R COL USARMY NG IDARNG (US); Ream, Darren LTC USARMY NG IDARNG (US); Rubel, Lee D LTC USARMY NG IDANG (US); Smith, William M LTC USARMY NG IDARNG (US); Godfrey, Matthew J LTC USARMY NG IDARNG (US)  
**Subject:** RE: [Non-DoD Source] Fwd: [EXTERNAL] Radical Expansion proposed at OTA  
**Attachments:** Foundations-of-Readiness-2018.pdf

Charlie,

Attached is the article I found published on GKO (CAC Enabled)(cc'd everyone for their SA). I haven't found the article on any open sources yet. It is unclassified though and open distribution.

The attachment in Ms. Fite's email is "Orchard Radical Expansion Planned ARNG 2018 Installations.pdf"

I would be interested in how she got this article.... Or if she got a pre-published version that was not released openly.

I will look if there are any discrepancies, but at first glance, I think everything matches the magazine.

This article was staffed by everyone mid-July 2017 and I received a final draft back in August.

LTC KEVIN T. HICKEY  
Deputy G-1  
Idaho Army National Guard  
W - (208) 272-3777  
C - (208) 571-7788  
[kevin.t.hickey.mil@mail.mil](mailto:kevin.t.hickey.mil@mail.mil)



**From:** Amanda Hoffman <[alhoffman@blm.gov](mailto:alhoffman@blm.gov)>  
**Date:** April 10, 2018 at 16:32:37 MDT  
**To:** Charlie Baun <[charles.w.baun.nfg@mail.mil](mailto:charles.w.baun.nfg@mail.mil)>  
**Subject:** [Non-DoD Source] Fwd: [EXTERNAL] Radical Expansion proposed at OTA

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

Sent from my iPhone

Begin forwarded message:

**From:** katie fite  
<[katie@wildlandsdefense.org](mailto:katie@wildlandsdefense.org) < Caution-mailto:katie@wildlandsdefense.org > >  
**Date:** April 9, 2018 at 9:16:32 PM MDT  
**To:** <[ng.id.idang.list.ngid-emo@mail.mil](mailto:ng.id.idang.list.ngid-emo@mail.mil) < Caution-mailto:ng.id.idang.list.ngid-emo@mail.mil > >, Amanda Hoffman <[alhoffman@blm.gov](mailto:alhoffman@blm.gov) < Caution-mailto:alhoffman@blm.gov > >  
**Subject:** [EXTERNAL] Radical Expansion proposed at OTA

Dear BLM and National Guard,

Pleas enter these concerns in the OTA expansion and BLM ROW issuance project record.

Here the Guard states they already have a large amount of land:

"We have a large amount of land that can be used to conduct maneuver training with our tracked vehicles. With this heavy maneuver land and our ranges, the OCTC is a great place to come," LTC Hickey said. What started out as a small, local range is now a large, generally self-contained area. The OCTC has its own wastewater plant, well, and generator backup. "The OCTC is kind of our own city," LTC Hickey said".

Large-Scale expansion planned:

"The OCTC is expanding its capability to train units, but perhaps more importantly, the training center is expanding its role within the National Guard. "Going into the future, the National Guard is looking at possibly making us the premier heavy maneuver training center, where the ARNG's 1st Armored Brigade Combat Teams (ABCT) and two Stryker Brigade Combat Teams (SBCT) may come to train, due to the large expansive training area that we have," LTC Hickey said. The ABCTs are the Army's primary armored force. An ABCT consists of seven battalions and contains both M1 Abrams tanks and M2 Bradley infantry fighting vehicles (IFVs), M109A6 Paladin self-propelled artillery systems, and armored personnel carriers, which operate in a supporting role".

AND:

"To support units coming for training and mobilization, the OCTC will need to expand its infrastructure. "We are looking at Fort Irwin National Training Center in California for examples of how to support rotational training units. They have a large infrastructure to support rotational training units—barracks, mess pads, laundry facilities,

and so on. What sets us apart is the ranges and the maneuverland that we have. The ABCTs need a lot of land to be able to maneuver their tanks and complete the required training," LTC Hickey said.

"For the next couple years, we are looking at hosting two brigades per year, which is something we have done at various times in the past," LTC Hickey continued. Each brigade is around 4,000 people. Depending on what type of rotation the brigade is doing, and the number of support elements, a brigade could bring 4,000 to 6,000 people to the OCTC for 30 to 60 days. "Where bed space really comes into play is with mobilizations and training support personnel, since training units typically lodge under austere conditions. If we will be doing mobilizations from the OCTC, we will need the infrastructure to support that mission." With the added billeting, the OCTC's total bed space is now 880".

AND:

"A 30-minute drive away, adjacent to the Boise Airport is Gowen Field, headquarters of the Idaho National Guard and home of the 124th Fighter Wing. Despite the fact that the OCTC and Gowen Field are not physically connected, the two training centers are considered one installation. "Between the OCTC and Gowen Field, we currently have more than 3,000 beds in total. We are looking at increasing the life support and the logistical infrastructure to house an entire brigade at the OCTC. The long-range plan is to build up to the capacity of 9,000 beds between the OCTC and Gowen Field to support mobilizations and units coming through for training," LTC Hickey said".

AND:

"If not done properly, an expansion can strain or damage the natural environment. The OCTC is situated in the middle of a national conservation area for birds of prey. Established in 1993, the conservation area, now called the Morley Nelson Snake River Birds of Prey National Conservation

Area, covers close to 485,000 acres and is managed by the Bureau of Land Management (BLM). "We have one of the largest raptor populations in the world: falcons, golden eagles, bald eagles, owls, and hawks," LTC Hickey said. The OCTC has made some areas with rehabilitated plant or animal habitat off-limits to training".

AND:

"At 143,000 acres, the OCTC has enough land that it can rotate training, avoiding undue stress on the land. "We are working with other stakeholders, such as the BLM and Idaho Department of Lands to expand the total area by **up to 29,000 acres**, which will enable the OCTC to further protect the critical habitat by reducing the concentration of maneuver impact. We are doing the rehabilitation that needs to be done after a unit trains out here, in order to keep the vegetation needed to sustain the habitat".

There is no way the habitat will be sustained with such an expanded military footprint and presence here.

WHY does the scoping letter for the proposal only mention around 14,300 acres? It appears the Guard is violating NEPA by incrementally piece-mealing into place segments of a much larger, connected plan.

WHERE are the other 15,000 acres located? Does the Guard plan to takeover BLM lands in the SRBOPA?

WHAT else is planned? Clearly an EIS is required for analysis of all the direct, indirect and cumulative effects of this radical military footprint expansion here.

Despite the large amount of land and expansive training area described repeatedly in the article, the Guard wants more. This runs counter to the Birds of Prey Legislation, and the ability of this fragile arid landscape to sustain the Guard's constant and escalating battery of impacts. The use of the land is supposed to be for the Idaho military - not profiteering by the Truck Stops on the Freeway where Guard people may stop, or by local contractors. There is no need to site a grandiose deployment center here -further straining and breaking natural resources - from very scarce water, to the sensitive raptor habitats and cultural sites.

It is clear an EIS must be prepared, and all the potential actions the Guard is planning for this are must be laid on the table, and fully assessed.

Sincerely,

Katie Fite  
Public Lands Director  
WildLands Defense  
PO Box 125  
Boise, ID 83701



<Orchard Radical Expansion Planned ARNG 2018  
Installations.pdf>

<ATT00001>

## Baun, Charles W NFG (US)

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**From:** Godfrey, Matthew J LTC USARMY NG IDARNG (US)  
**Sent:** Monday, April 30, 2018 1:52 PM  
**To:** Baun, Charles W NFG (US)  
**Cc:** Stitt, Dennis C Jr LTC USARMY NG IDARNG (US)  
**Subject:** FW: [Non-DoD Source] New Maneuver Area (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Mr. Baun,

Here is the email that the State received from Mr. Richey and the concerns.

V/R

Matthew Godfrey  
LTC, FA IDARNG  
Deputy Commander/DP58 Tiger Team Lead  
204th Regional Training Institute  
208-272-4486

On Apr 10, 2018, at 4:41 PM, Packwood, J Cole COL USARMY NG IDARNG (US) <[james.c.packwood.mil@mail.mil](mailto:james.c.packwood.mil@mail.mil)> wrote:

What are your recommendations, I suggestion we reply with the talking points and invite them to make comments for the EA?

v/r

LTC Cole Packwood  
CFMO, Idaho Army National Guard  
(208) 608-1696 Mobile  
(208) 272-3728 Office  
[james.c.packwood.mil@mail.mil](mailto:james.c.packwood.mil@mail.mil)

Begin forwarded message:

**From:** Billy Richey <[BRichey@mountain-home.us](mailto:BRichey@mountain-home.us)>  
**Date:** April 10, 2018 at 15:33:30 MDT  
**To:** "Packwood, J Cole COL USARMY NG IDARNG (US)"  
<[james.c.packwood.mil@mail.mil](mailto:james.c.packwood.mil@mail.mil)>  
**Subject:** [Non-DoD Source] New Maneuver Area

Cole, I've been in a couple meetings in Mountain Home and MHAFB and have received questions about the use of the new maneuver area and its impact of those actions to MHAFB, Elmore County and the City of Mountain Home. Do you have any information that would address these questions?

What would be using the area?  
Who would be using the area?  
Who is scheduling agency?  
How often does it planned to be used?  
Would it expand the helicopter participation over the area?  
Would there be live fire in the area?  
Would there be dust? If so, is there a dust abatement plan?  
How much noise would it generate?  
Would the noise impact MHAFB?  
Would the noise impact the City of Mountain Home?

**Billy F Richey**  
**Special Assistant for Military Affairs**  
**State of Idaho**  
**(208) 599-1256**

CLASSIFICATION: UNCLASSIFIED



April 30, 2018

**SIMCO East Maneuver Area and Training Expansion Comments**

[ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil)

[alhoffman@blm.gov](mailto:alhoffman@blm.gov)

Dear BLM and IDARNG,

Here are concerns from WildLands Defense regarding the very large OTA Range expansion and issuance of BLM Right-of-Ways facilitating as much as potentially 29,000 acres of a new military War Training Range.

**Overview of Concerns**

The proposed 14,300 acre expansion of the Orchard Combat Training Center (OCTC) or OTA translates to a 10% expansion of the current training area. Of the 14,300 acres approximately **10,300 acres** are located within the Morley Nelson Snake River Birds of Prey NCA (MNSRBOPNCA). Put another way, **72% of the planned expansion is within the Morley Nelson SRBOP NCA**. Based on that fact alone, it appears a full EIS is necessary.

The EA scoping documents state that the expansion is necessary because:

- the amount of available, effective heavy maneuver training lands within the OTA is insufficient to meet current and future IDARNG mission and DOD training requirements.
- the new training lands are required by the IDARNG to compensate for limited availability of heavy maneuver training areas and to meet current Department of Army (DA) standards to prepare for and ensure troop combat readiness.

Yet comments from a LTC Kevin Hickey in a recent edition of the [Journal of the Army National Guard Installations + Environment 2018](#) contradict the scoping and EA documents rationale for the proposed expansion. It appears the article was published in early 2018. LTC Hickey is Chief, Orchard Combat Training Center.

The article notes "Our current facilities and maneuver land allow units to achieve the readiness level they need to deploy." It goes on to say that at 143,000 acres, the OTA has enough land that it can rotate training, avoiding undue stress on the land. LTC Hickey also says "... our high-desert training center has such a large expanse of land it can support the training requirements of our training aligned units and allow rehabilitation

efforts to take place at the same time". This statement alone would appear to negate the need for expansion.

**LTC Hickey also says the IDARNG plans to expand the OTA by 29,000 acres** something the EA scoping documents fail to mention. It appears this proposed 14,300 acre expansion is but half of the total planned expansion. How much of this would be in the SRBOPA? Where are the planned expansion parcels located? What are the ecological values of these and all lands that the Guard targets for expansion? When one looks at existing maps of the OTA and SRBOPA, it is evident that the existing Guard training area is very large, and cuts a big hole in the Birds of Prey Area. Increasing the hole (or holes by 14,000 or 28,00 acres) is a serious matter.

The scoping and EA documents indicate the expansion is necessary to train IDARNG units. Yet statements from LTC Hickey indicate the expansion is necessary to support units other than IDARNG units (such as Reserve and non-Idaho Army Guard units) and also to make the OTA a mobilization site.

The article also states the Idaho Guard plans to host two brigades per year. From searching on-line information, it appears that the Idaho Guard has only one brigade. Is that the case? Why do two brigades need to train in an area that was established for the Idaho Army National Guard to use? Again, it appears the proposed expansion is more to grow the profile of the OTA than for the Idaho Army National Guard training purposes and need for use of the land.

Taken in their totality the statements indicate there is no need for the expansion. Such an expansion would be harmful to the NCA by removing habitat for native biota resulting in habitat loss, degradation and fragmentation. There are many other significant impacts including noise, environmental contaminants and pollution, vehicle-caused or other sources of mortality and other human created disturbance to the area.

Based on the above information it appears a full EIS, complete with alternative analysis, is needed for the proposed expansion.

The scoping documents indicate at least some, if not all, of the proposed State expansion lands are currently leased and that revenue is being derived from the land. Who is (are) the current lease holder(s) and how much revenue is derived from the land?

The scoping document says the State will derive even more revenue from the proposed plan than from the current lease. But it appears this "increased" revenue comes from State tax dollars since the Idaho Army National Guard is a State tax dollar funded agency. Please explain where this "increased revenue" will come from if not from Idaho State tax dollars.

How much State funding does the Guard currently get? How much would it get with the new range?

What fund amount does the Guard get from out of state Units of all kinds training at the OTA at present?

What fund amount would the Guard get if the expansion proposal is put in place?

How much will IDL/state get per acre for leasing these lands to the Guard?

The scoping document indicates there will be placement or construction of semi-permanent or permanent improvements (such as "... established assembly areas or bivouac sites ..."), and these will be made on State lands.

- what type of State land lease does the Idaho Army National Guard plan to apply for?
- what are the semi-permanent or permanent improvements, generally speaking, the Idaho Army National Guard plans to construct on State lands?
- has the Idaho Army National Guard constructed or made any improvements, of any type, within the proposed State land area? If so, where were the improvements made, when were they made (timeframe), and what were the improvements (type)?

BLM must require that the Guard post a large bond to pay for fires or potential contamination and then clean-up of adjacent lands in the NCA or Four Rivers FO where hazardous substances may drift, or in the event of fires originating from the new state Range. Who pays for fires that spread from the existing OTA Range onto BLM lands? The Guard or federal tax dollars?

We are very concerned that the Guard plans to lure out of state or other military entities - like the Air National Guard was trying to lure War Planes from other places to the Boise Airport by offering up the “desert training” Ranges.

Please apply ALL concerns WLD raised in 2017 about the proposal to issue rights-of-way on BLM lands in the SRBOPA to the Idaho Guard to this 2018 identical proposal. RE: Guard letters of March 9 and 13th DANG Simon East Maneuver Training Area and ROW NEPA. This proposal represents another radical expansion of military disturbance in the region.

A significant part of what is taking place appears to be that the Idaho Guard makes money from other Guard or military branches that use the OTA. So this underlying notice appears to be making money. This is no reason for BLM to issue these very harmful ROWs and enable the expansion of very significant human disturbance activity (noise, that will significantly impact the SRBOPA (which already suffers a great burden from military and other human disturbances).

This is also highly controversial in the context of all the proposed militarization of southern Idaho taking place right now. This includes potential bedding of noisily loud F-35s, and the highly controversial MHAFB CAS Urban Warfare Range. Portions of the proposed OTA expansion are located within the Urban CAS area Urban War game 15 NM CAS circle for Mountain Home. All direct indirect and cumulative impacts of all these military proposals on underway (or others that may be contemplated) must be assessed in an EIS. We are greatly concerned that the Guard may be making money from: Other Guard Units, other DOD Military Units like marines or others, or foreign militaries

(like Canada).

The BLM must require that the Guard reveal how much money it gets for letting others use the OTA. I note that last year, the Idaho Air Guard had what was akin to an advertisement (it was taken down after we pointed it out on-line) on its Website urging plane/transients from other bases (or countries) to fuel up in Boise, and train at Idaho's Remote Ranges. It seems Idaho is being sacrificed by the military to fulfill the expansionist goals of some in the Guard. Also, the NEPA analysis must reveal if the Guard will pay to lease state land - and if so, how much.

Residents of Mountain Home already complain about noise and light flashes from the existing OTA training. This state Range proposal will be right on their doorstep.

Full baseline studies of ALL environmental conditions- including status of wildlife and other native biota habitats and populations, conditions of roads (width, material, etc.) must be fully examined.

The 2018 proposal for major expansion of the Guard Training area will cause wildlife habitat disturbance and destruction through use of Bradley fighting vehicles, tanks, etc. It clearly necessitates an EIS.

This proposal directly contradicts the mission of the BLM, which according to the Scoping document, is to *“sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. Established in 1993 with the enactment of Public Law (P.L.) 103-64, the NCA is located in southwestern Idaho, comprising more than 483,000 acres and including portions of Ada, Canyon, Elmore, and Owyhee counties. The purposes for which the NCA was established and is managed are to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area”*.

The existing Guard use has already taken a very significant toll on all of the ecological values for which the NCA was established.

The proposal fulfills NONE of the elements of the BLM's mission.

### **Watershed and Water Use Concerns**

How does the Idaho Army National Guard plan to protect playas located in T3S R4E Section 36 and T3S R5E Section 35 and any other playas located in the proposed State lands area?



How does the Idaho Army National Guard plan to protect the Canyon Creek area and Fraser Reservoir area? Are both these Reservoirs still functional? What pollutants may contaminate these reservoirs and their watersheds as the result of training? Have these levels been measured at the existing training Guard OTA training areas?

From information in an old Guard EIS prepared for various new facilities within the OTA (discussed below), it appears that the Guard already uses a very large amount of water. Certainly all of the planned activities and facilities will further increase water demand.

What is the current amount of water used by the Guard on an annual basis? What is it used for? How much will water use increase with the proposed EA action? What will be the source of this water? What is the status of the aquifer from which any water used for the current proposal would be drawn? Isn't Mountain Home suffering from a serious water shortage? Aren't wells that pump from the aquifer having to be drilled to deeper and deeper depths? Would this proposal further deplete the aquifer?

What are all activities that use water associated with the current range? What is the volume of the water use for each activity? What will these amounts be if the expansion is put into place?

### **A Broad Range of Reasonable Alternatives Must Be Considered**

WildLands Defense is opposed to BLM granting a right-of-way to the state land, and to this expansion of military disturbance in southern Idaho. There are many reasonable alternatives.

One of the Alternatives that must be considered is to examine the adequacy of the existing Range if just Idaho and neighboring states Guard Units trained at Orchard. Another is to incorporate more simulation training with on the ground training. Another is to make more efficient use of the existing Range.

The Army Guard and USAF already have immense training areas. The alternatives and analysis should consider reduction of land area used for training rather than expansion. Further, the Guard stated at the public meeting that lands in the NW area of the existing OTA were in relatively good condition. Please consider an alternative reducing the OTA by 14,300 (or 29,000?) acres in this area – if the Guard continues to pursue this state leasing proposal.

Please fully assess the areas of the OTA that could be removed from Guard use and could become functioning parts of the NCA to in part “Mitigate” for this expansion if this unneeded proposed action is forced through. Please identify lands with sensitive wildlife or rare plant species such as slickspot peppergrass, or that contain cultural or other values that could be returned to BLM management as part of this project.

The Scoping document claims repeatedly that the expansion is needed because of civilian shooting. BLM could close off more adjacent areas to shooting, as an alternative. The military could then stay within the confines of the existing OTA. This could be accomplished by working with the Congressional delegation and the Guard. It would benefit public safety, provide more land area free of lead shot, and more area with ground squirrel populations not impacted by shooting. The Guard must also detail where, when and how public shooting is hampering and constricting its training, and come up with reasonable solutions to address this – not just claim a need for more land.

Why can't IDANG (or the outside Military Units that are being brought in) just do some training in other places that already have such Ranges as another alternative? Where are these alternative sites based? This must be considered as part of a series of No Expansion alternatives. Why can't the Guard just do some training in other places that already have such Ranges as another alternative? Where are these located?

Another alternative combines ALL of the above, or some portion of the suggested alternatives.

### **Thorough Wildlife and other Baseline Inventories and Population Studies Are Essential**

Thorough and detailed baseline inventories for biological, cultural and other important values must be conducted across the affected landscape. This unfortunate proposal would expand the military disturbance footprint, and increase fire danger by having the military transiting through, practicing, bivouacking and generally disturbing much more land area. This includes the lands in the state parcels, and the BLM lands surrounding the proposed ROWs.

There are many BLM sensitive species/species of concern inhabiting the public lands inside and outside the NCA that may be impacted or disturbed by habitat loss/damage/fragmentation noise, or exposed to lasers or other harmful military devices and activities, suffer disturbance that disrupts use of habitats, endure intrusive noise that disrupts species communication or reproductive behavior, etc., as well as other any other adverse impacts. These species are considered sensitive because of the rarity or declining populations due to habitat loss and human disturbance.

There must be a thorough analysis of the needs of each sensitive species, surveys must be conducted, and areas of occupied habitat identified, In areas not occupied, but where seemingly suitable habitat may be potentially recovered, please identify actions needed to restore species species.

Please provide full baseline current site-specific data and analysis on sensitive species occurrence, their habitats (and the quality and quantity of habitat), the location and amount of habitat fragmentation, the status and trend and viability of their local and

regional populations, and the threats to persistence that these species currently face. How will this proposal add to the threats faced by these species? How much habitat loss, habitat disturbance, noise or other impacts will these species be exposed to? What will the impacts of day military activity be on these? Of night activity? Of laser use or other technological devices that may be used? Of the combined effects of all the existing activities on the OTA plus on the proposed expansion areas and ROWs?

How much traffic will be on the access routes? When? How much will this disturb and/or kill and/or injure wildlife including sensitive species and Birds of Prey? How might this fragment habitats for smaller and less mobile species? Please provide full current detailed inventories and analyses of the current habitat amount, condition, populations, population trends of all important and sensitive species in the SRBOPA and surrounding lands.

How much of the full suite of military activity will be at night, and how will this further displace and disturb wildlife? We stress that lasers disturb wildlife, and if we understand correctly, there will laser use for targeting or some other purpose involved here. Is that the case? The NPS urges the public not to use lasers in park lands because of the adverse effects on wildlife. Is there current laser use at OTA? If so, how is this affecting wildlife?

Please provide detailed population studies that assess the viability of local and regional sensitive species and raptor populations, and the threats to them.

Please provide detailed studies of the use of the sites currently churned to powder dust on the OTA by sensitive and important species.

What will be the full impacts of Tanks and Bradley fighting vehicles on ground nesting or burrowing animals?

Have there been any studies conducted of animal mortality from Guard training activities at the OTA – collapsed burrows of burrowing owls, churned soils unsuitable for ground squirrels, etc.? Does the “rehab” include crested wheatgrass that is also very poor for ground squirrels?

Won't this impact raptor or other migratory birds populations that may nest in many other areas –including Canada? For example, information at the public meeting showed golden eagles wintering in the NCA, but breeding in Canada or Alaska if I recall correctly? What is the status and trend of these populations?

### **Increased Fire Risk from Increased Military Activity**

Full and detailed analysis of all potential fire-causing activities on both the OTA, the lands NCA and Four Rivers FO lands affected by the ROW and the state lands themselves must be provided.

Please provide a record of acreage and location of all National Guard fires that originated in the OTA and spread onto BLM Land over the past 25 years. What was their cause?

How frequent are fires within the OTA? How many fires, and what is their acreage – have occurred in the past 20 years within the OTA? What was their cause?

How many fires originated on BLM land and spread on to the OTA? What was their location and cause?

Increased fires will be yet another disturbance and intrusion that will significantly harm the NCA and the wildlife populations inhabiting it.

The new Gateway West powerline construction activity and the line itself is another new disturbance, and potential source of wildfires in the NCA, on top of all the existing disturbances. Please conduct a thorough analysis of potential fire effects from this and other new or foreseeable development.

### **Noise and Visual Disturbances**

What will be the noise levels of activities during training or any other aspect of this proposal? Please do not average sound over a day, but consider the intensity of the sound to a human and/or animal at the time it occurs.

Please fully assess infrasound as well as “regular” sound. How will this affect wildlife and public uses and enjoyment of the NCA?

What is known about noise effects on Birds of Prey and other sensitive animal species that inhabit the NCA? What frequencies do these species hear? What are the frequencies and intensities of noise that all potential activities on the proposed expansion area will generate, or that are generated by the existing OTA activities? Will there be loud booming noises? Will these take place over all seasons of the year?

What will the visual intrusions be? What activities will produce them? Will there be night training? How do lasers and/or lights impact Birds of Prey and other sensitive wildlife?

Will there be drone use? Drone use disturbs and displaces wildlife.

<https://www.opb.org/radio/programs/thinkoutloud/segment/four-things-to-know-about-drone-use-in-national-parks/#.WueFT3xHihg.facebook>

Raptors may attack drones, or become injured in doing so.

What flammable, dangerous or other materials will be used, and how might this impact mobile wildlife, the public, or drift/move onto BLM Land or the town of Mountain Home, or the freeway, and potentially impact people and animals?

What are the simulated or other munitions that will be used? What happens if someone makes a mistake and there are real munitions? What devices will be used? Will threat emitters be used? What equipment that emits electromagnetic radiation will be used? What radars will be used? Please provide detailed information. Hasn't the military has developed new radar that can be harmful to humans and animals? What devices specifically will be used on the ground and in the air? How will these potentially impact humans, domestic animals, and wildlife? Will planes or drones foreseeably be involved in any of this training activity?

What are all other flammable or dangerous materials, and where will they be used? How will these impact wildlife and other resources?

Do any Guard activities at Orchard or elsewhere interface or are associated in any way with USAF or Air Guard training activities in? If so, where and how? Are there foreseeable changes – as large portions of the SRBOPA and OTA underlie the proposed MHAFB CAS Urban War Game Range that threatens a million people in southern Idaho?

What other foreseeable state land actions may take place or may the military be contemplating in the project area and surroundings in southern Idaho? For example, there is the long pending proposed state-BLM land exchange at Big Hill– where the state inexplicably seeks a rugged dry high point that is very poor grazing lands. There have been concerns that the state seeks the land to use it for various military purposes. There is also the mysterious brewing state land trade related to this very area and the OTA. This must be fully examined in the NEPA analysis here.

Is this in any way related to military expansion plans to the south in the Owyhee-Bruneau-Jarbidge region? For example - is the state similarly planning on leasing Big Hill to the military if it is acquired in a BLM land exchange?

Is it foreseeable that the state lands sought in the Guard proposal will be used in any way (in the air or on the ground) for Urban CAS or other USAF or Air Guard activities?

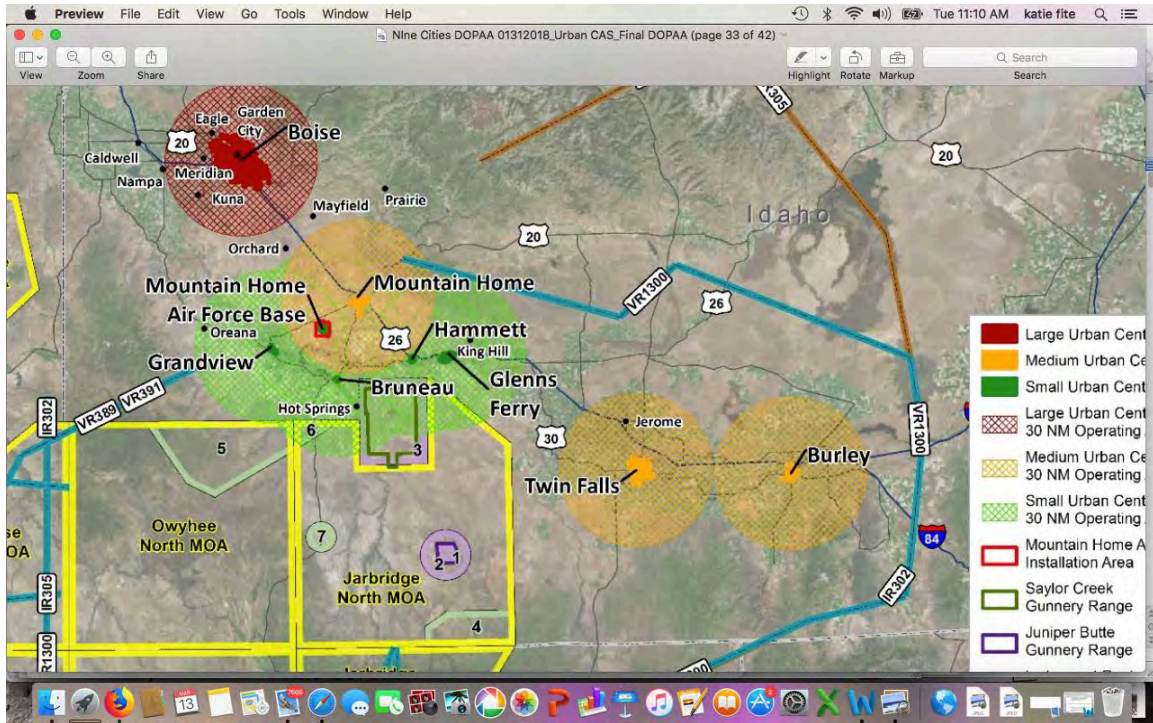
Will there foreseeably be any activities associated with potential F-35 Beddown here? Or A-19s or other Air Guard activities? Or planes of other Military Units?

Are other branches of the Air Force (other than the Air Force/ACC) using any lands - such as over Mountain Home for CAS at present?

Are any of the OTA's fake building sites or other facilities used for CAS training? If so, be whom? Will there potentially be fake building sites on the leased land?

**Rapidly Expanding Human Population in Southern Idaho – And Incompatibility with More Military Activity and Intrusions**

Idaho is the fastest growing state in the Nation, and much of that growth is taking place right within the area targeted for the massive new civilian population CAS Urban War Game Range. Portions of that range overlie the Proposed OTA expansion.



The same adjacent civilian population will be subjected to Urban War Game overflights and ground personnel, plus the noise, dust, environmental contaminants, likely herbicide use and drift, and other environmental impacts and disturbance from the proposed large-scale OTA Range expansion. The number of people potentially exposed is increasing by the day. Plus, the very close proximity of the Freeway to this Range also means that large numbers of drivers may be exposed to dust (and dust clouds blocking visibility) and harmful pollutants.

<http://abcnews.go.com/US/idaho-fastest-growing-state-population-us-census-bureau/story?id=51903202>

### Who All Has Been training at the OTA?

Please detail all use by military units, and identify the Units that have trained at the OTA over the past ten years. Please provide information showing any use change or increase over time.

### Will There Be Restricted Airspace Over the Proposed Expansion?

Maps show restricted airspace over the OTA. Will there be airspace changes over the proposed Range expansion state lands or BLM ROWs? If so, how might this impact civilian or other flights?

Please fully explain the existing Airspace restrictions over and/or surrounding the OTA. Does this result in denser air traffic over the BOPA or other BLM lands? If so, how might this impact civilian or other flights?

We note that the MHAFB Urban CAS War Game proposal would include airspace from 10,000 to 18,000 ft. in the new CAS Urban War Range being sought.

### **Soil and Contaminants - Erosion and Movement**

How much soil erosion will this activity generate, and what people will be the “downwinders” or suffer any of a number of adverse effects (dust) – and also noise, pollutants, fire threat and other safety concerns - from all Range-associated activities?

It is really alarming to see how close to Mountain Home and to the Freeway this expansion would be – with potential dust, pollutants, etc. affecting a very large number of people traveling there.

How will the soil disturbance and erosion loss, soil fertility and productivity? How many tons of soil erode on an annual basis as a result of current OTA activity? How has this been measured? Where is it deposited –based in wind directions? What would the erosion rate amount be if only the Idaho Guard and neighboring state Units trained at OTA?

How erodible are the soils on the state lands? How erodible are they on the foreseeable 29,000 acre disturbance zone?

How much soil is currently lost (over all seasons of the year) on the existing disturbed areas? How much will this increase under the proposal for a 14,300 acre expansion? Under the proposal for a 29,000 acre expansion?

### **Public Health Impacts**

As we discuss throughout these comments, there are various aspects of this Range Expansion that may significantly impact public health and wellbeing. Military training activities can have serious adverse effects, including very real adverse health impacts – such as asthma (dust), insomnia loss of sleep, triggering PTSD, etc. See for example: <http://www.truth-out.org/news/item/44288-explosions-and-crashes-military-aircraft-are-a-threat-to-us-civilians>

Human health effects from jet noise include: The human health impacts from these levels of chronic jet noise include hearing loss, immune toxicity, insomnia, stroke, heart attacks and even death. Won't there be chronic loud noise associated with Guard ground activity this close to Mountain Home? Plus we are concerned that an air component of some kind might be added.

Noise studies are essential. What Sound Exposure levels will the nearby civilian population experience from all activities associated with this Range and its activities? How loud are all devices that will be used at varying distances? What has been generating the noise coming from OTA night training, or at other times, that Mountain Home residents have reported hearing?

Please conduct full and detailed air quality studies of dust generation and effects, and predominant wind direction and other weather characteristics that may influence this. These must include the amount of dust in summer/fall, the likely directions dust will blow, the likely effects on civilians health, well-being and quality of life.

Air quality in southern Idaho is increasingly poor. In the Mountain Home area, there is the significant pollution generated by MHAFB War Plane activity. This will increase with Urban CAS War Game flights. There are also an increasing number of CAFO dairies generating significant pollution. Ag field plowing also generates dust, as do fires, Winter inversions are common.

An air pollution study for the Mountain Home area must be conducted as part of this process.

In fact, just this week we learned this: <https://www.boiseweekly.com/boise/ada-county-gets-low-marks-in-new-state-of-the-air-report/Content?oid=10673566>

*Residents in Southwest Idaho are well-familiar with yellow and orange air alerts issued by the [Idaho Department of Environmental Quality](#). It was just last July when Boise saw no fewer than 20 days of yellow alerts, indicating moderate levels of pollution. By August, Boise was blanketed by smoke coming in from a half-dozen major wildfires in the region, triggering a string of orange alerts. And by September, the DEQ issued a statewide air quality advisory and the Treasure Valley edged up to the dreaded "purple" alert category, indicating "very unhealthy" conditions. As a result, the Boise and West Ada School districts canceled all outside activities and events September 6-8.*

*In its newly released ["State of the Air 2018"](#) report, [the American Lung Association](#) gave a "D" grade to Ada County for its high level of ozone.*

The Urban CAS War Game DOPAA states there are not separate air studies for the MHAFB area. There needs to be! And now we have dust and pollution from a lot of diesel and other military equipment operations imposed on the area right by Mountain



Home as well.

What are the current levels of asthma in Mountain Home? How much of a problem is PTSD, and might noise or other military activity associated with residences so close to the state land result? How do they compare to the regional or national average? Many retired Veterans live in the Mountain Home area. How might the sounds of the activity affect them, including possibly triggering PTSD?

Given the sensitivity of this landscape, the fact the Guard has torn up its existing Range so badly, and the proximity of the proposed expansion to a significant civilian population in Mountain Home and the Freeway, the expansion is not suitable for the following listed in the Scoping document:

• *Providing small arms and crew-served weapons qualification ranges and facilities*<sup>[L][SEP]</sup>•  
*Providing maneuver areas suitable for training heavy armor and mechanized units*<sup>[L][SEP]</sup>•  
*Providing range facilities for M1A1 and M1A2 tank series and Bradley fighting vehicles*<sup>[L][SEP]</sup>• *Providing for artillery gunnery and maneuver*<sup>[L][SEP]</sup>• *Providing for AH-64 Apache attack helicopter gunnery.*<sup>[L][SEP]</sup>

Why can't all the activities in the "background" section be conducted on the existing OTA? Can't the military "multi-use/task?"

### **Much More Specific Info on Roads and Overall Higher Quality Maps Are Essential**

The maps are poor. The one at larger scale is very unclear. It is difficult to determine just which roads the ROWs will be on. The boundary of the NCA is inexplicably missing from maps.

Map 2 does NOT show the boundaries of the NCA. All it shows is yellow for BLM land. However, it is clear this action would significantly fragment the SRBOPA.

Mapping also shows this project is much too close to the populated areas - i.e the town of Mountain Home, and the Freeway.

### **Roads and Crossings**

Full and detailed analysis of the current width, level of improvement, surface etc. of roads and ROWs must be provided. Has the Guard jumped the gun here, as it has done with the Tank Crossing illegally installed on SIMCO Road? What were conditions of all routes prior to this proposal surfacing – compared to now?

The description of just what would take place with roads and crossings is unclear. As we stated previously, the maps need to provide MUCH more detail. This includes all areas of

existing remnant native vegetation.

Crossing associated with military activity will also create a hazard for the public on SIMCO Road.

There is low level (supposedly) nuclear waste hauled on SIMCO Road with great regularity. How many nuclear waste trucks are on the road on a daily basis over the course of the year? What are potential contamination effects in the event of an accident?

What other foreseeable actions are associated with this proposal?

Please provide detailed mapping of all the existing transmission lines and other utility/energy/garbage dump or other projects in the area.

The Boise airport is reported to be seeking a new fuel line - will this foreseeably run across the NCA and/or close to this area - further fragmenting habitat?

How will dust generated from this disturbance affect solar energy sites? Or blow on the freeway which is really only a mile or two away at one point, and cause accidents and crashes?

It appears there may be playas on the state lands and/or affected by this. Are there rare plants like Davis peppergrass? Rare fairy shrimp? Cultural sites?

### **What Is the Status of Any Land Trade?**

We are concerned that a Land Trade proposal may be in the offing. Has the BLM received any inquiries from the Guard/IDL to trade state lands for BLM Lands adjacent or near Mountain Home? Or elsewhere in the surrounding area or southern Idaho? If so, when, what was the proposal? What is the status of the proposal?

What lands are being considered? Where are they located? Please provide detailed mapping. It is necessary to see the location of the lands in relation to this proposal and the additional large expansion described in LTC Hickey's article.

We are very concerned about the dust and pollution (including toxics) hazards to people and wildlife, and the potential for depleted uranium or other carcinogenic and toxic substances from military equipment or activities to be tracked all over the place with this scheme. Also note the close proximity of some of the state lands to the Freeway. Dust clouds may endanger drivers, and will certainly pollute the air of Mountain Home residents.

### **Welter of Military Impacts**

This proposal will expand noise. It will expand bright lights/flashes at night with night training - including potential use of White Phosphorus Used in War Crimes and highly flammable and dangerous). The AF's EA that expanded use of white phosphorus to Saylor Creek in Owyhee County stated that this dangerous material was used at the OTA. It may involve use of lasers.

Moreover, once the military gets the ROWs, the vehicles/materials moving across the road and the spectrum of training activities impacting adjacent public lands and wildlife habitats and populations and people - are highly likely to change. See Attached article by Dahr Jamail on military incrementalism. That sure seems to be what we are seeing take place with this sudden rash of dangerous and harmful military expansion proposals in southern Idaho.

Just in the past two years Military Expansion proposals in southern Idaho include:

- The 2016 MHAFB Convoy EA that allows portions of state Highway 51 and the Bruneau Desert main access road to public lands to be periodically closed for "Convoy Training" and which also made several other changes - including building 6 new Urban CAS sites on JBR as well as one at a No Drop site. The Convoy EA also rejected as controversial an Urban CAS alternative for Boise, Glenns Ferry, and Mountain Home - and never analyzed it. The current MHAFB DOPAA falsely claims it did. The military is not telling the truth in its Urban CAS DOPAA.

- The December 2017 proposal to beddown MORE Singapore War Planes at MHAFB. Interestingly, the Urban CAS DOPAA stated that Urban CAS training at the Owyhee Ranges is 9.5% of the total MHAFB Training, and the Singapore 2017b Beddown proposal states this will increase remote range use by 14%.

- The 2018 ID Air Guard led F-35 EIS. Despite large-scale ID citizen opposition, and ID being rejected in 2012 for F-35 being and also was NOT chosen for basing of F-35s by the AF Review folks, yet the ID Air Guard still seeks to impose noxiously loud F-35 War Planes on the Boise airport— foreseeably driving people out of their homes, de-valuing property, imposing unhealthy and hearing impairing noise over many area schools, and then the planes will be flying out to the Remote ranges inflicting extreme levels of noise and overflights on top of sage-grouse, bighorn sheep and other wildlife. ALL of the military activity we are discussing here will have serious deleterious impacts on many populations of wildlife in southern Idaho, as well as public lands recreation.

- The 2018 Urban CAS Military War Games proposal over 9 Idaho cities and a civilian population of a million people. Attached are WLD's initial comments on that proposal - which we ask that you fully incorporate into comments and concerns and all issues raised in the comments that are applicable to this current proposal. This involves an unprecedented radical expansion of a military War Game air, ground and training Range over a vast area of southern Idaho. It will impact and endanger a million or more people. And again, this State land proposal underlies the Mtn Home Urban CAS flight activity zone.

- There are likely other proposals we don't know about - as we did not receive the

addition Singapore beddown info from the military - and instead stumbled across it on-line.

The full direct, indirect and cumulative effects of all of these activities - plus the activities on all the existing Ranges and training taking place on wildlife (including raptor populations that use the lands affected by any or all of these military activities), people, air quality, quality of life, health, risk of fires, weed spread (including flammable weeds) and all elements of the environment must be fully assessed in an EIS.

Please fully present and analyze the Guard and military mission requirements that are referred to in the OTA Scoping document. Secretary of Defense Mattis was in Mountain Home in January and complained about public intrusion on Military Ranges. Was he referring in part to this? The month following Mattis' visit, the Air Force's Urban CAS War Games Proposal Range over a million Idaho residents was proposed. This is an immense Military intrusion on civilian space. The State lands are well within the Urban War Games 15 Nautical Mile circle around the town of Mountain Home. Are both these proposals related in any way to the Mattis visit? Is there an immense Military Expansion Plan that all of the current proposals are part of? If so, all foreseeable actions and effects must be analyzed the in the OTA NEPA process.

The NCA will also be afflicted with the development of an additional high voltage transmission line - Gateway West that will further reduce and fragment habitats, increase fire risk, etc. It may also lead to new development and uses in the area. Are any foreseeable military activities related to this Line?

Is this action at all related to the military's "convoy training" that is to take place between Bruneau and Grasmere? Will the military equipment used here also be used at times down there? Where else would the Air Force get a "convoy" from - other than the Guard?

Is any of the equipment "training" here - either from the IDANG or other entities that may end up training on the site - contaminated with depleted Uranium or other hazardous material from being used in countries where the U.S. has used depleted uranium? How will this be monitored? Have they been tested?

A long-term large state land lease is also a controversial, precedent-setting action. This is particularly the case because an extremely controversial and 1990s radical MHAFB military expansion proposal in Owyhee County involved state land trades and locating Air Force facilities on state land.

Bringing in forces and equipment from all over to train at OTA is also a matter of considerable concern.

BLM issuing Rights-of-ways to facilitate these activities is cause for significant

environmental concern, as the activities will degrade, diminish and destroy raptor and sensitive species habitats within the SRBOPA.

This is made even worse - as the “need” appears to be so the Guard can bring in more Units and military branches, and profit. So it is not even necessary for the Idaho Guard.

The SRBOPA legislation describes the use of the public land by the Idaho military/Guard, and not by other DOD entities.

### **The Guard’s Self Serving Claims Must Be Carefully Scrutinized**

The scoping documents lists Issues related to effective military training and personnel within the OTA:

- Safety hazards for soldiers associated with increased public shooting in the OCTC; <sup>[L]</sup><sub>[SEP]</sub>SOLUTION: Work to enforce existing shooting restrictions, and to expand their area.
- Maneuver training conflicts associated with the increased amount of public use lands within the <sup>[L]</sup><sub>[SEP]</sub>OCTC; <sup>[L]</sup><sub>[SEP]</sub>SOLUTION: Enforce existing closures.
- Increased destruction of IDARNG equipment by public users; <sup>[L]</sup><sub>[SEP]</sub>SOLUTION: Get better protection for equipment. The BLM learned long ago in Owyhee County how to build bullet-proof signs. Using iron to protect signs or other equipment works wonders.
- Limitations on the amount of available, heavy maneuver training lands within the OCTC. SOLUTION: Stop trying to bring in Military Units from all over the country and elsewhere. Learn to live within the ability of the existing Range to withstand Guard disturbance. THIS is a problem of IDANG’s own making.
- Continued changes in mission requirements for the IDARNG to meet DA needs. <sup>[L]</sup><sub>[SEP]</sub>The Orchard Range is for the Idaho Guard, not Marines from Florida.

Let’s look at more of LTC Hickey’s claims than we have already discussed. He states the Guard already has a large amount of land:

"We have a large amount of land that can be used to conduct maneuver training with our tracked vehicles. With this heavy maneuver land and our ranges, the OCTC is a great place to come," LTC Hickey said. What started out as a small, local range is now a large, generally self-contained area. The OCTC has its own wastewater plant, well, and generator backup. "The OCTC is kind of our own city," LTC Hickey said".

The small, local range is what the SRBOPA Legislation authorized. Plus, the existing

Range is not small – it is very large.

LTC Hickey states:

"The OCTC is expanding its capability to train units, but perhaps more importantly, the training center is expanding its role within the National Guard. "Going into the future, the National Guard is looking at possibly making us the premier heavy maneuver training center, where the ARNG's ve Armored Brigade Combat Teams (ABCT) and two Stryker Brigade Combat Teams (SBCT) may come to train, due to the large expansive training area that we have," LTC Hickey said. The ABCTs are the Army's primary armored force. An ABCT consists of seven battalions and contains both M1 Abrams tanks and M2 Bradley infantry fighting vehicles (IFVs), M109A6 Paladin self-propelled artillery systems, and armored personnel carriers, which operate in a supporting role".

Please provide detailed information showing what direct, indirect and cumulative environmental impacts and dangers may be associated with all of this described by LTC Hickey.

BLM must fully assess these impacts in this current NEPA analysis. For example, what is the carbon and climate change footprint of bringing in Military Units from all over, rather than having them train closer to their base of origin? And what is the current climate change Footprint of the existing activities at OTA including vegetation and microbiotic crust loss?

"To support units coming for training and mobilization, the OCTC will need to expand its infra- structure. "We are looking at Fort Irwin National Training Center in California for examples of how to support rotational training units. They have a large infrastructure to support rotational training units—barracks, mess pads, laundry facilities, and so on. What sets us apart is the ranges and the maneuver land that we have. The ABCTs need a lot of land to be able to maneuver their tanks and complete the required training," LTC Hickey said.

This all must be fully assessed in the NEPA analysis. The Guard already has plenty of "maneuverland" at OTA.

"For the next couple years, we are looking at<sup>[SEP]</sup>hosting two brigades per year, which is something<sup>[SEP]</sup>we have done at various times in the past," LTC<sup>[SEP]</sup>Hickey continued. Each brigade is around 4,000<sup>[SEP]</sup>people. Depending on what type of rotation the<sup>[SEP]</sup>brigade is doing, and the number of support elements, a brigade could bring 4,000 to 6,000 people<sup>[SEP]</sup>to the OCTC for 30 to 60 days. "Where bed space<sup>[SEP]</sup>really comes into play is with mobilizations and<sup>[SEP]</sup>training support personnel, since training units typically lodge under austere conditions. If we will be doing mobilizations from the OCTC, we will need the infrastructure to support that mission." With the added billeting, the OCTC's total bed space is now 880".

All impacts of this on all resources must be fully assessed –including the foreseeable 29,00 acre expansion LTC Hickey desires.

LTC Hickey further states:

"A 30-minute drive away, adjacent to the Boise Airport is Gowen Field, headquarters of the Idaho National Guard and home of the 124th Fighter Wing. Despite the fact that the OCTC and Gowen Field are not physically connected, the two training centers are considered one installation. "Between the OCTC and Gowen Field, we currently have more than 3,000 beds in total. We are looking at increasing the life support and the logistical infrastructure to house an entire brigade at the OCTC. The long-range plan is to build up to the capacity of 9,000 beds between the OCTC and Gowen Field to support mobilizations and units coming through for training," LTC Hickey said".

Please provide a detailed analysis of any and all links, shared activities, etc. between the IDANG and the Air Guard (and note the Air Guard is aggressively pursuing noxiously loud F-35 War Planes, and billeting lots of people near them is NOT a good idea. What levels of potential noise would these folks be exposed to, if F-35s are bedded down in Boise?

LTC Hickey continues:

"If not done properly, an expansion can strain or damage the natural environment. The OCTC is situated in the middle of a national conservation area for birds of prey. Established in 1993, the conservation area, now called the Morley Nelson Snake River Birds of Prey National Conservation Area, covers close to 485,000 acres and is managed by the Bureau of Land Management (BLM)". "We have one of the largest raptor populations in the world: falcons, golden eagles, bald eagles, owls, and hawks," LTC Hickey said. The OCTC has made some areas with rehabilitated plant or animal habitat off-limits to training".

How has the Guard adversely impacted the raptor population? What might raptor population levels be WITHOUT the Guard's aggressive training?

AND:

"At 143,000 acres, the OCTC has enough land that it can rotate training, avoiding undue stress on the land. "We are working with other stakeholders, such as the BLM and Idaho Department of Lands to expand the total area by up to 29,000 acres, which will enable the OCTC to further protect the critical habitat by reducing the concentration of maneuver impact. We are doing the rehabilitation that needs to be done after a unit trains out here, in order to keep the vegetation needed to sustain the habitat".

There is no way the habitat will be “sustained” with such an expanded military footprint and presence here. The claim that tearing up more land is protection is simply false.

WHY does the scoping letter for the proposal only mention around 14,300 acres? It appears the Guard is violating NEPA by incrementally piece-mealing into place segments of a much larger, connected plan. What is the full Guard expansion Plan here? How does it tie into the large-scale aggressive militarization of southern Idaho that is looming?

Where are the other 15,000 acres located? Does the Guard plan to takeover BLM lands in the SRBOPA? The Four Rivers FO? Will this involve the secretive land swap being discussed?

WHAT else is planned or foreseeable? Clearly an EIS is required for analysis of all the direct, indirect and cumulative effects of this radical military footprint expansion here.

Despite the large amount of land and expansive training area described repeatedly in the article, the Guard wants more. This runs counter to the Birds of Prey Legislation, and the ability of this fragile arid landscape to sustain the Guard’s constant and escalating battery of impacts. The use of the land is supposed to be for the Idaho military - not profiteering by the Truck Stops on the Freeway where Guard people may stop, or by local contractors building mess halls or herbiciding weeds and/or the Guard itself from bringing in outside Units. There is no need to site a grandiose deployment center here -further straining and breaking natural resources - from very scarce water, to the sensitive raptor habitats and cultural sites.

### **Slickspot Peppergrass**

Please provide detailed information and analysis of the status of all LEPA occurrences in the OTA and NCA and adjacent Four Rivers lands for all periods of time for which records have been kept. Where is LEPA still present? What does HIP and earlier monitoring show?

We are very concerned that two Military Ranges substantially increase fire danger and jeopardizes LEPA habitats

Where is all occupied habitat? Where is all potential habitat? What threats do all known extant occurrences face?

### **Lease Terms**

Please provide all the terms, conditions and language that will be included in any lease. From the glimpses at what a lease might entail from the EA and LTC Hickey’s article, it appears the Guard is seeking open-ended land development opportunities. This means



that the uses and adverse impacts could change considerably, and become more dangerous, or generate more disturbance in the future.

Will the Terms of any lease allow the Guard to build structures, roads, targets etc. – without getting additional permission from the state? If so, who knows what this site could morph into over time.

### **What Are Current Ecological Conditions on Targeted State Lands?**

Please provide detailed information on the wildlife/sensitive biota, playa/watershed, native vegetation and other values of the targeted state lands.

The Guard told us at the public meeting that the state land was closed to public use, If that is the case, might it be a Refuge of sorts from the target shooting and other human disturbances taking place in the BOPA and BLM lands?

What impacts are cattle and/or sheep grazing currently having on these lands? What are the numbers of cows, use levels seasons of use, etc.? Won't there be significant indirect and cumulative adverse disturbance impacts to wildlife, native vegetation, etc. from adding in the intensive disturbance of soils and destruction of vegetation from training activities?

### **How Exactly Does or Would “Rehab” Take Place?**

The Guard seeks more land because it has torn up the land in the existing OTA by having so many outside Military Units train here.

Please describe all the current rehab methods that are used, the plan species planted (is crested wheat used – ground squirrels do not do well on this weedy exotic grass it also spread into native vegetation communities – as Stoller work on INL found – basically cwg is a weed.

What is considered a reasonable density of ground squirrels per acre? What are the current numbers/density on the OTA in lands used for Tank Training?

Will any forage kochia weed be used? Is there any present? We are very concerned there may be – as the Simplot cows graze north of the Freeway and forage kochia weed is all over that country.

How long are any rehabbed areas “rested” before being torn up again? What wildlife use these areas, and then again see their habitat destroyed?

How much soil erosion takes place throughout this process – from the training tearing up the soils and removing protective vegetative cover, to planting and seeding, to the next

bout of severe disturbance?

Are herbicides used? If so, what will they be – both on state lands and the ROWs? What are their adverse effects? What is the potential for drift?

What happens in the event of a fuel spill or other hazardous material event?

### **Climate Change Stress Exacerbates Project Harm – Impacts Must Be Assessed**

Please provide detailed analysis of the climate change stress the NCA ecosystem is already under, and how this is affecting, and is predicted to affect NCA biological and other values.

Please provide detailed analysis of how this proposal will worsen climate change effects and stress on biological and other values. The Military already has a huge adverse impact on climate stress – ranging from massive emissions from aircraft and land training activities to destruction of native vegetation and microbiotic crusts that helps sequester carbon. Further, how will this action harm microbiotic crusts?

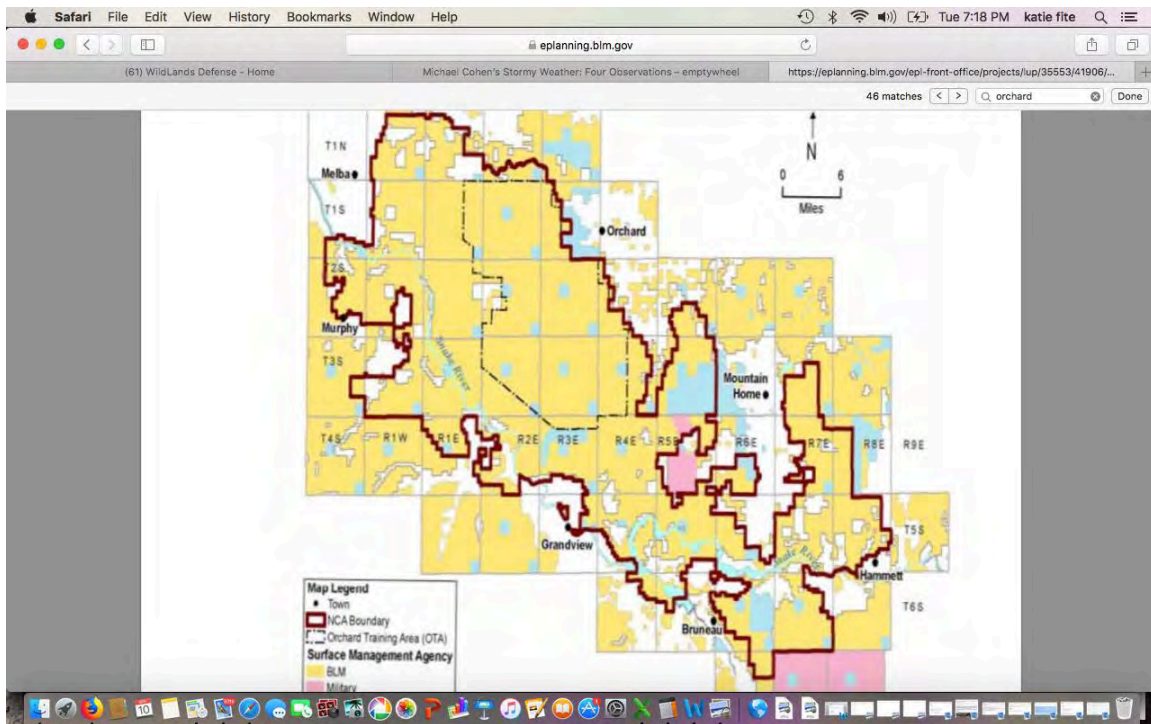
The adverse climate change effects of the Guard trying to draw in U its from all over adds to adverse fossil fuel burning effects of this proposal.

### **The Proposal Violates the NCA RMP – Land Use Plan Amendment Would Be Required**

This large expansion of the OTA and BLM ROWs facilitating such a harmful action would violate the protections to the NCA lands and resources that the current NCA RMP provides. We are also dismayed that BLM has done so little restoration work promised to the public. It is now 10 years after the RMP and the data used in it was much older.

HERE is a basic Map of the area from the RMP:

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p. R-3

Major RMP decisions include:

Protecting remaining shrub communities through aggressive wildfire suppression. THE Guard proposal INCREASES Fire Risk. Two brigades, two Training Areas, ROWs in between. Plus if it doubled to 29,000 acres – there may even be another Brigade.

Restoring up to 130,000 acres of shrub habitat. VERY LITTLE restoration work has been done. It all goes back to the BLM failure to control the grossly over-stocked levels of livestock herds that continue to degrade NCA native vegetation components, cause more flammable weeds and noxious weeds, compete with native herbivores that provide essential raptor food for resources, etc. Please provide mapping of the locations of all restoration projects, and the acreages, as well as BLM monitoring of their success.

Completing up to 100,000 acres of fuels management projects. WHAT has been done, and where? “Fuels” management can destroy kill, alter and fragment sensitive species and raptor habitats.

The RMP also includes the following, which are incompatible with the issuance of ROWs:  
ROWs.

Section 101 of NEPA lists six broad policy goals for all Federal plans, programs and policies. It states in pertinent part that "...it is the continuing responsibility of the federal government to...

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; this does not fulfill BLM environmental trustee obligations.
2. ensure for all Americans safe, healthful, productive and aesthetically and culturally pleasing surroundings; Issuance of the ROWS increases public safety risks and threats, and will result in aesthetically ugly, noisy, polluting, visually intrusive scarring likely to be visible from Mtn Home, the Freeway and elsewhere.
3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety or other undesirable and unintended consequences; There is no beneficial use to this expansion, which will cause expanded risk, degradation, harms to health and safety, etc.
4. preserve important historical, cultural and natural aspects of our national heritage, and maintain, wherever possible, an environment that supports diversity and variety of individual choice; This will further intrude on cultural and historical values, and the freedom of the public and nearby residents to be free from military noise, dust, pollutants, visual intrusions such as bright night lights or flashes, increased fire risk, etc.
5. achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; This will have adverse impacts on all of these factors.
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources." This diminishes the quality of renewable resources.
7. The Snake River Birds of Prey National Conservation Area (NCA) is located in southwestern Idaho, within a 30-minute drive of Boise, and where almost half of Idaho's population resides. It is located in Ada, Canyon, Elmore and Owyhee counties and encompasses approximately 483,700 public land acres extending 81 miles along the Snake River..

The NCA was established in 1993 by Public Law (PL) 103-64 (16 USC 460iii-2; 107 Stat. 304) (Appendix 1). Public activities and uses that existed when the legislation was enacted are allowed to continue to the extent that they are compatible with the purposes for which the NCA was established - conservation, protection, and enhancement of raptor (birds of prey) populations and habitats. It contains the greatest concentration of nesting raptors in North America and the greatest density of prairie falcons in the world. About 700 raptor pairs, representing 16 species, nest there each spring, including golden eagles and burrowing owls. Eight other raptor species use the area during various seasons.

It is clear an EIS and RMP Amendment must be prepared, and all the potential actions the Guard is planning for this area must be laid on the table, and fully assessed.

### **Failure to Require Removal of Unlawfully Placed Tank Crossing Rewards Guard Bad Behavior, and Prejudices NEPA Outcome**

We were dismayed to learn of the illegally placed Tank Crossing. It needs to be removed as soon as possible. BLM failure to require removal prejudices the outcome of this current ROW NEPA process.

Mapping of the OTA shows a nightmare of roads. How many more roads are predicted in association with this proposal? On the existing OTA area, how many of the roads have BLM ROWs? Which type of roads are required to have ROWs? Please provide a current map of all roads, facilities, etc.

Facilitating massive piece-mealed military expansion is NOT compatible with the NCA purposes as described below:

P. 1-1. The NCA is managed by BLM under the concept of dominant use rather than multiple use. This means that prior to authorizing uses, BLM determines the compatibility of those uses with the purposes for which the NCA was established. Many historic uses that were occurring when it was established have either already been analyzed or were analyzed during this planning process.

The RMP provides BLM with a stand-alone comprehensive framework for managing public lands in the NCA over the next 20+ years to meet the purposes of the enabling legislation (Appendix 1):

“...to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated

... therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area....”

The enabling legislation and the management principles contained in the Federal Land Policy and Management Act (FLPMA) guide the land use decisions within the NCA. In addition, authorized uses must be determined to be compatible with the purposes for which it was established [Section 3(a) of the NCA-enabling Act], as well as with the management guidance provided in Section 1(5) and Section 4(b) of the Enabling Act.

The proposed ROWs and expansion that they facilitate runs counter to RMP 1-2:

- Management is more proactive about conserving, protecting, and enhancing raptor populations and habitats, including raptor prey populations.
- Authorized uses are compatible with the purposes for which the NCA was established.
- Resource uses are balanced, and are sustainable over the long-term.
- Increasing demand for a comprehensive transportation plan, including off-highway

vehicle use, is addressed.

- Sensitive species habitats are protected and enhanced.

The proposed Guard expansion and ROWs and the ROW facilitation of the expansion runs counter to RMP 1.6.3 Fish and Wildlife (includes Special Status Animals)

DFC:

- The distribution, abundance, and quality of wildlife habitats would be maintained or improved to provide food, cover, and space for healthy populations of game and non- game wildlife through the seasons, as well as through various life stages.
- Distribution and condition of habitats would contribute to the long-term viability of federally listed and BLM sensitive species and to their resilience to environmental change.
- Raptor nest sites would be protected, maintained, and enhanced

The proposed expansion and ROWs run counter to these and other RMP provisions:

- The uplands would support healthy sagebrush and salt desert shrub communities, and provide habitats to sustain or increase raptor and raptor prey populations.
- The uplands would provide habitats to increase the populations of shrub obligate animals.
- Habitat conditions would contribute to long-term viability of special status species.
- Noxious weeds would only be present in small isolated areas.
- Plant communities would show an upward trend in species diversity, productivity, and structure.

NOTE that RMP lays the burden on the Guard to take care of the existing OTA. The 2018 claimed need for more space shows it has not done so.

The Idaho Army National Guard would continue to administer military activities in the Orchard Training Area in a manner that is compatible with the NCA-enabling legislation.

Standard:

Areas 1 and 2

Military activities would not adversely impact raptor and raptor prey habitats.

The proposed expansion of activities to two locations will increase serious disturbance of raptor habitats and prey habitats, and increase the adverse footprint of military activities on animals and populations.

The RMP Lands and Realty section states:

- Public lands would be consolidated to facilitate land management. THIS proposal makes it harder to manage BLM lands for the values they are to protect.
- Administrative and public access to public lands would exist where needed and where consistent with resource values. THIS proposed ROW use is not consistent with the values the BLM is to be protecting.

Over 300,000 acres of native shrub communities have been lost in the past 30 years due, in large part, to repeated wildfires. Upland shrub and riparian communities constitute important habitat for small mammals that are the principal prey for the 25 raptor species that spend all or a portion of their year in the NCA. These communities also support a myriad of other wildlife species. Shrub communities degraded by wildfire, soil erosion, and exotic plant invasion cannot support relatively stable small mammal populations that are found in less degraded communities. Anything that compromises the population dynamics of raptors and their prey is of special concern. Therefore, a prime consideration for wildlife management is to improve existing habitat conditions, especially for small mammal populations. Management actions for the fish and wildlife program are tied closely to the vegetation and riparian resource programs.

There would now be two epicenters of noise, vehicle mortality for wildlife, habitat destruction, human disturbance of all types to raptors and sensitive species, potential use or accidental of or contamination by toxic materials.

Raptors and Raptor Prey: The greatest benefit to raptors is the stabilization of raptor prey populations, most notably the Piute ground squirrel. To stabilize and increase the small mammal prey base, remnant upland native shrub habitat must be preserved, interconnected, and expanded. Restoring degraded areas to shrub/bunchgrass habitat with a forb component and biological soil crust provides additional habitat for small mammals, invertebrates, lizards, snakes, and birds.

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The following RMP description of Guard activities demonstrates how unsafe a range right by Mountain Home and close the Freeway would be. Plus hazardous substances may be transported along the ROWs, fall off military vehicles on SIMCO road, etc.

The IDARNG conducts military training activities in the 138,500-acre OTA (all ownerships) under the authority of an MOU, which was last amended in 2002. Among other things, that amendment extended the term of the MOU to 30 years, and provided for additional amendments at the conclusion of the RMP process to incorporate decisions that affect operational aspects of the OTA. The Impact Area is closed to public access for safety purposes. The closure is incorporated as an Ada County ordinance to protect the public from the potential safety and health hazards related to live firing, unexploded ordnance, and munitions-related chemical soil contamination.

### **Guard's 1980s EIS Demonstrates Need for EIS Here**

The Guard did an EIS in the 1980s for amending its five year plan. The same needs to take place here.

[https://books.google.com/books?id=7w0yAQAAAMAJ&printsec=frontcover&source=gbg\\_summary\\_r&cad=0#v=onepage&q&f=false](https://books.google.com/books?id=7w0yAQAAAMAJ&printsec=frontcover&source=gbg_summary_r&cad=0#v=onepage&q&f=false)

What is the current Five Year Plan? Please provide it. Are there other plans? What about a 20 year Plan?

Is the proposed actin plus the foreseeable increase to 29,000 acres becomes reality, won't almost half of the land area here be militarized?

### **More Information Is Needed**

Please provide a copy of all Army or Idaho Army National Guard documents listed in the scoping announcement. A PDF format is requested. They should also be posted on-line for the public to review as part of this proposal.



Please also provide records of the human intrusions or damage that the Guard uses to justify a significant part of the need for the project.

We are also concerned that there was not adequate media outreach by agencies to inform the public about this controversial proposal and scoping meeting.

Sincerely,

A handwritten signature in cursive script that reads "Katie Fite". The signature is written in black ink and is positioned below the word "Sincerely,".

Katie Fite  
Public Lands Director  
WildLands Defense  
PO Box 125  
Boise, ID 83701  
208-871-5738



BLM  
Morley Nelson Snake River Birds of Prey National Conservation Area  
Attention: Charlotte Alexander  
3948 Development Ave.  
Boise ID 83705

calexander@blm.gov  
ng.id.idarng.list.ngid-emo@mail.mil

May 1, 2018

RE: Simco-East Maneuver Training Area and ROW

Thank you for considering our scoping comments on the Simco-East Maneuver Training Area and ROW. Since 1973, the Idaho Conservation League has been Idaho's voice for clean water, clean air and wilderness—values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy, and policy development. As Idaho's largest state-based conservation organization we represent over 30,000 supporters who want to make sure that military training activities do not degrade natural resources such as water quality, wildlands, and wildlife.

The Idaho Army National Guard is proposing to reduce training activities on BLM-managed lands within the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA) and expand operations on Idaho Department of Lands under the terms of a new 20-year lease. The Idaho Army National Guard is also proposing to establish a ROW on BLM-managed lands within the NCA for the construction and maintenance of 5.62 miles of roads to access the IDL lands.

The authorizing legislation and management plan for the NCA provide clear direction to sustain and enhance habitat for birds of prey and their prey. Military training activities are components of the NCA, but these activities should be managed so that they are consistent with the enabling legislation and do not impair the local ecology.

Idaho Conservation League is generally supportive of the proposed leasing arrangement as the IDL lands described in the proposal appear to have less conservation value than the BLM lands. The Environmental Assessment should quantify the habitat conditions on each property and demonstrate that there would be a net conservation gain. To the extent practical, activities should be relocated onto the IDL properties and discontinued on BLM lands. The BLM lands that are no longer used for training purposes should be restored to the extent possible and in accordance with an NCA restoration plan. Additional resources are needed to prevent illegal trash dumping

and cross-country vehicle use in the NCA. Fire prevention and post-fire rehabilitation efforts may also be of value.

With regard to the ROW, the Environmental Analysis should examine if the new road construction is compatible with the purposes of the NCA and if it can be implemented in such a manner that enhances NCA values. We encourage the BLM and Idaho Air National Guard to develop a mitigation program to accompany this ROW proposal such that there is a net conservation gain for the duration of the impacts. With regard to the ROW crossing Simco Road, we are concerned that cross-traffic and the resulting road impacts may adversely affect public safety. As such, we recommend developing design features to avoid and minimize safety risks as well as a mitigation program to improve public safety along Simco Road. The program could address road maintenance issues, road realignment, signage, patrols and other measures.

Please send us any subsequent documents for this project. We look forward to continuing to work with the Idaho Air National Guard and the BLM on this project and others in the future.

Thank you very much.

A handwritten signature in black ink that reads "John Robison". The signature is written in a cursive style with a large, looping initial "J".

John Robison  
Public Lands Director  
(208) 345-6942 x 13  
jrobison@idahoconservation.org

# **Scoping Report**

# Simco East Public and Agency Scoping Summary

Agencies Comments: A project summary letter and invitation to comment was sent to all local, state, and federal agencies on March 9, 2018 for project review and comment. In addition to the letter, additional face to face coordination/consultation was also undertaken (see below for summary and timeline).

- FWS- Informal consultation was initiated in 2015. Surveys for identified species, specifically *Lepidium papilliferum* (LEPA) were conducted for the entire proposed project area, with a sizable buffer around it from 2014 through 2016. No LEPA populations or critical habitat (existing or proposed) were identified within the project area. As such a No Effect determination was made by the IDARNG. The IDARNG also conducted a second informal consultation meeting with FWS in 2017 and April 16, 2018 to discuss the proposed project and IDARNG findings.
- BLM- Original ROW application was submitted in 2016 with amended application in April of 2018. IDARNG has monthly coordination meetings with the NCA manager and presented the three year LEPA summary report and effects determination to the level one team (BLM and FWS) on April 16, 2018.
- IDL- Original lease application was submitted in 2016. A revision is currently being prepared based on an IDL change in the lease rate. IDARNG has a monthly coordination meeting.
- Mountain Home Highway District- The IDARNG coordinated with the Mountain Home in April of 2017 to obtain a permit to construct the crossing on Simco Road. The IDARNG obtained a permit to construct the crossing in May of 2017.
- Ada, Elmore, and Owyhee County Commissioners: The IDARNG gave a presentation to the Ada County Commissioners on March 12, 2018 and Elmore County Commissioners on March 16, 2018. The Ada County Commissioners did not identify any issues with the proposed project and were in general support (see letter of support dated 30 April 2018). The Elmore County Commissioners did not identify any issues with the proposed project in general and were in general support of military operations (see letter of support dated 11 May 2018)). Wildland fire and suppression was topic of interest, as was the interaction of the Orchard Fire District with non-fire district communities in the area. This topic was brought up as a potential discussion topic for a future meeting.
- SHPO- The IDARNG received a letter form the SHPO on 15 March 2018 requesting additional information on the project. Mr. Jake Fruhlinger and LTC Stitt met in person with the SHPO repos on 28 March 2018. They supplied the SHPO with the surveys conducted to date and a short summary of the proposed action and associated SOPs, BMPs, and mitigation actions identified by the IDARNG to date in relationship to cultural resources. SHPO had no issues with the proposed action and wanted to use this project as a national example for interagency coordination.

**Tribal Comments:** Two project summary letters and invitations to comment were sent to all Southern Idaho Tribes (Shoshone-Bannock Tribes, Shoshone-Paiute Tribes, Burns Paiute and Shoshone Tribe, The Confederated Tribes of the Warm Springs, and the Northwestern Band of the Shoshone Nation) and the Nez Perce Tribe on April 18th, 2017 and March 6th, 2018 for project review and comment. In addition to the letter, additional face to face coordination/consultation was also undertaken (see below).

- No comments have been received from any of the Tribes to date. The IDARNG and BLM will continue to coordination and consult with the Tribes throughout the process.

**Public Comments**

The IDARNG, in coordination with the BLM conducted two public scoping meetings in Ada and Elmore Counties. A project letter and invitation to an open house public meeting was sent to an interested party list supplied by the BLM on March 9, 2018 (106 individuals or groups included on the interested party list). In addition, a public notice was put in the Idaho Statesman and Mountain Home News. Public meetings were in Ada County on April 4, 2018, from 4:00pm to 7:00pm at the Wyndham Garden Boise Airport (3300 S Vista Ave, Boise, ID 83705). The second was held in Elmore County on April 5, 2018, from 4:00pm to 7:00pm at the Hampton Inn (3175 Foothills Ave, Mountain Home, ID 83647). Information about the project was also available on the IDARNG website <http://emomil.state.id.us/> (Documents for Review), or the BLM website (<https://go.usa.gov/xnhYw>). A second letter was set out to the interested parties on March 13 2018. The letter corrected the BLM website address for online access to the project files. Table 1 summarizes the comments received to date that were used in coordination with the interdisciplinary group to develop the resource and resource use consideration matrix (Appendix X).

**Table 1. Summary of Issues or Concerns by Individual or Group**

Name	Date	Scoping Issues
Public Scoping Meeting Comments (April 4 and 5, 2018)		
Katie Fite	April 4, 2018	Wildlife, noise, toxics, military takeover of lands
Doug Hayes	April 4, 2018	Wildlife
Roy & Rita Galbreath	April 5, 2018	No Comment
Dale & Dee Key	April 5, 2018	No Comment
Brian & Lori Reid	April 5, 2018	No Comment
Linda Ady	April 5, 2018	Noise
Tom Ady	April 5, 2018	Noise
Mike Reid	April 5, 2018	Noise
David Patch	April 5, 2018	Noise
Cammie Patch	April 5, 2018	Noise
Cythina Reid	April 5, 2018	Noise
Donna Bennett	April 5, 2018	No Comment
George Bennett	April 5, 2018	No Comment
Jay Weaver	April 5, 2018	Fire, noise, dust, tumble weeds

<b>Name</b>	<b>Date</b>	<b>Scoping Issues</b>
<b>Written Public Comments to Date (Chronological Order)</b>		
Owyhee County Commissioners	26 March, 2018	Support of proposed action- economics, soldier readiness, national security, and emergency response.
Katie Fite	April 1, 2018	Similar to those stated in April 9, 10, and 30, 2018
Katie Fite	April 9, 2018	Similar to those stated in April 10 and April 30, 2018.
Ina Serdiu	April 10, 2018	Military training, economics, public lands
Bill Richey	April 10, 2018	Airspace, wild fire, dust, noise
Katie Fite	April 10, 2018	BLM ROW, military training, and economics.
Ada County Commissioners	April 30, 2018	Support of proposed action and sustaining the IDNG mission.
Wildlands Defense (Katie Fite)	April 30, 2018	NCA, economics, vegetation, wildlife, dust, light, health and human safety, noise, military training and airspace, infrastructure, transportation, special status species, water quality, air quality, climate change, wildland fire, VRM, and soil erosion.
Jay Weaver	April 30, 2018	Economics (property value), vegetation and invasive species, wildlife, noise, dust, wildfire, military training, public access.
Idaho Conservation League	May 1, 2018	Generally supportive- military training consistent with NCA legislation, habitat condition, birds of prey, and ROW resulting in a net benefit for the NCA.
Elmore County Commissioners	May 11, 2018	Support of proposed action- economics, soldier readiness, and emergency response.

# **Public Notice Letter**





**IDAHO NATIONAL GUARD  
JOINT FORCE HEADQUARTERS  
ENVIRONMENTAL MANAGEMENT OFFICE  
4715 S. BYRD ST., BLDG. 518  
BOISE, IDAHO 83705-8095**



March 9, 2018

In Reply Refer To: Idaho Army National Guard Simco-East Maneuver Training Area and ROW Environmental Assessment (EA)

Dear Public/Agency Participant:

The Idaho Army National Guard (IDARNG) is soliciting comments on its proposal to use lands owned by the Idaho Department of Lands (IDL) near the Orchard Combat Training Area (OCTC) for heavy maneuver training. The site is located east of Simco Road in Elmore County. The new training area is required by the IDARNG to compensate for limited availability of heavy maneuver training areas within the OCTC, and to meet current Department of Army (DA) standards to prepare for and ensure troop combat readiness. The proposed action would require a right of way (ROW) from the Bureau of Land Management (BLM) in the Morley Nelson Snake River Birds of Prey National Conservation Area to access the IDL lands via Simco Road. As such, the BLM will be participating as a Cooperating Agency. A summary of the proposed action is attached.

The public comment period will be open March 9, 2018. Comments made on this proposal would be most helpful if they are received by May 1, 2018, and are directly relevant to the proposal and project area. The preliminary EA is expected to be completed in June of 2018 with a final decision in August 2018.

The IDARNG and BLM will be conducting two public scoping meetings. The first will be held in Ada County on April 4, 2018, from 4:00pm to 7:00pm at the Wyndham Garden Boise Airport (3300 S Vista Ave, Boise, ID 83705). The second will be held in Elmore County on April 5, 2018, from 4:00pm to 7:00pm at the Hampton Inn (3175 Foothills Ave, Mountain Home, ID 83647). Information about the project can also be found at the IDARNG website <http://emomil.state.id.us/> (Documents for Review), or the BLM website (<http://bit.ly/2gpOWdK>).

Any individuals, groups, or organizations wishing to comment on this process should attend the public scoping meetings or submit written comments to:

Idaho Army National Guard  
Environmental Management Office  
Attention: Charles Baun (Conservation Branch Manager)  
4715 South Byrd Street, Bldg. 518  
Boise, Idaho 83705-8095

Or

Bureau of Land Management  
Morley Nelson Snake River Birds of Prey National Conservation Area  
Attention: Charlotte Alexander  
3948 Development Ave.  
Boise, ID 83705

Electronic comments should be sent to [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) by close of business on May 1, 2018.

*Before including address, phone number, email-address, or any other personal identifying information in your comments, be advised that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that the BLM withhold personal identifying information from public view, the BLM cannot guarantee it will be able to do so. If you wish us to withhold your personal information you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, available for public disclosure in their entirety.*

# **Correction Notification**



**IDAHO NATIONAL GUARD  
JOINT FORCE HEADQUARTERS  
ENVIRONMENTAL MANAGEMENT OFFICE  
4715 S. BYRD ST., BLDG. 518  
BOISE, IDAHO 83705-8095**



March 13, 2018

**Correction Notification:** Incorrect BLM Website Address Related to the Idaho Army National Guard Simco-East Maneuver Training Area and ROW Environmental Assessment (EA)

Dear Public/Agency Participant:

As an interested party you received a letter dated 9 March 2018 soliciting comments for the Idaho Army National Guard's (IDARNG) proposal to use lands owned by the Idaho Department of Lands (IDL) near the Orchard Combat Training Area (OCTC) for heavy maneuver training. The Bureau of Land Management (BLM) website identified in the announcement was incorrect. Please use this address to access the BLM website (<https://go.usa.gov/xnhYw>).

Any individuals, groups, or organizations wishing to comment on this process should attend the public scoping meetings or submit written comments to:

Idaho Army National Guard  
Environmental Management Office  
Attention: Charles Baun (Conservation Branch Manager)  
4715 South Byrd Street, Bldg. 518  
Boise, Idaho 83705-8095

Or

Bureau of Land Management  
Morley Nelson Snake River Birds of Prey National Conservation Area  
Attention: Charlotte Alexander  
3948 Development Ave.  
Boise, ID 83705

Electronic comments should be sent to [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) by close of business on May 1, 2018.

*Before including address, phone number, email-address, or any other personal identifying information in your comments, be advised that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that the BLM withhold personal identifying information from public view, the BLM cannot guarantee it will be able to do so. If you wish us to withhold your personal information you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, available for public disclosure in their entirety.*

# **Scoping Information Package**

## SCOPING/INFORMATION PACKAGE Simco-East Maneuver Training Area and ROW

This information package summarizes the Idaho Army National Guard's (IDARNG) proposal to use lands owned by the Idaho Department of Lands (IDL) outside, but near, the Orchard Combat Training Area (OCTC) for heavy maneuver training (Maps 1-5). The proposed area is located east of Simco Road in Elmore County. The new training area is required by the IDARNG to compensate for limited availability of heavy maneuver training areas within the OCTC, and to meet current Department of Army (DA) standards to prepare for and ensure troop combat readiness. The proposed action would also require a right of way (ROW) from the Bureau of Land Management (BLM) to access the IDL lands through the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA) (Map 4).

The Proposed Action would mostly be located within the NCA (Map 2). However, the entire proposed training area would be on IDL property. As such, the area is managed by the IDL, with training activities to be managed under the IDARNG's 2013 Integrated Natural Resource Management Plan (INRMP), 2013 Integrated Cultural Resource Management Plan (ICRMP), and other internal military requirements (see proposed action below). As this is a federal action, it must be analyzed in accordance with the National Environmental Policy Act (NEPA) to determine potential environmental consequences.

The purpose of this document is to inform interested and affected parties of the proposal and to solicit comments to assist with the NEPA review of the proposal. Analysis of the proposal is ongoing, and will be documented in an Environmental Assessment (EA) with a decision estimated in January of 2018. Comments received in response to this solicitation will be used to identify potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the purpose of and need for the project.

### **Background**

The mission of the IDARNG and the OCTC (Maps 1 and 2) is to provide training lands and Annual Training facilities first to the Idaho National Guard (IDNG) and Reserve Forces, and then to other government and civilian organizations when possible. The OCTC is the primary training area for Idaho Army National Guard (IDARNG)-assigned units. It is also one of the largest heavy force (armor/mechanized) training areas in the United States. The OCTC provides training for both the federal and state missions of the IDARNG. The state missions include providing assistance as requested to the Governor during State emergencies, including natural disasters, civil disturbance, or terrorist attacks. During times of national emergencies, the President reserves the right to mobilize the National Guard, putting them in federal duty status. The OCTC has the following missions:

- Providing a training area for National Guard (NG), Reserve, and Active Military Forces
- Providing assistance, facilities, and training areas for logistical support to units conducting Inactive Duty Training (IDT) and Annual Training (AT)
- Providing small arms and crew-served weapons qualification ranges and facilities
- Providing maneuver areas suitable for training heavy armor and mechanized units
- Providing range facilities for M1A1 and M1A2 tank series and Bradley fighting vehicles
- Providing for artillery gunnery and maneuver
- Providing for AH-64 Apache attack helicopter gunnery
- Providing or coordinating organizational and direct support maintenance facilities for units conducting training
- Providing training areas and facilities to local law enforcement agencies, civil defense organizations,

Reserve Officers Training Corps departments, public education institutions, and other civilian activities are also conducted on the OCTC as long as no interference occurs with existing military training activities.

The mission of the BLM is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. Established in 1993 with the enactment of Public Law (P.L.) 103-64, the NCA is located in southwestern Idaho, comprising more than 483,000 acres and including portions of Ada, Canyon, Elmore, and Owyhee counties. The purposes for which the NCA was established and is managed are to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area

The mission of the IDL is to manage Idaho's endowment assets to maximize long-term financial returns to public schools and other trust beneficiaries, and to provide professional assistance to the citizens of Idaho to use, protect and sustain their natural resources.

### **Purpose and Need for Actions**

The IDARNG requires a sufficient amount of accessible, heavy maneuver training lands to meet current and future IDARNG mission and DOD training requirements. Based on external training limitations associated with the BLM's 2008 Snake River Birds of Prey NCA RMP, and increasing impacts from public use of the OCTC, the amount of available, effective heavy maneuver training lands within the OCTC is insufficient to meet current and future IDARNG mission and DOD training requirements. Therefore, additional heavy maneuver training lands outside and near the OCTC that are directly accessible from the OCTC are needed to offset the training area losses and increasing public use conflicts, including concerns for the health and safety of training soldiers and the public.

Issues related to effective military training and personnel within the OCTC include but are not limited to:

- Safety hazards for soldiers associated with increased public shooting in the OCTC;
- Maneuver training conflicts associated with the increased amount of public use lands within the OCTC;
- Increased destruction of IDARNG equipment by public users;
- Limitations on the amount of available, heavy maneuver training lands within the OCTC; and
- Continued changes in mission requirements for the IDARNG to meet DA needs.

In order to address these issues, the IDARNG has worked with the Idaho Department of Lands (IDL) on a large-scale lease proposal. This lease proposal would allow the IDARNG to meet its current and future training needs while at the same reducing the overall impacts from military training within the NCA on BLM-managed lands. This would be accomplished by shifting heavy maneuver training activities currently conducted on BLM lands in Management Area 1, to lower valued habitat on IDL property associated with BLM's Management Area 3 (2008 NCA/RMP). The proposed leased IDL property would not be used for any live fire activities and would considerably increase revenue to the state endowment fund compared to the current use.

With regard to the BLM ROW, the purpose of the proposed action is allow access to BLM-managed lands by the IDARNG for the construction, use, and maintenance of 5.62 miles of unpaved roadway to access IDL lands from Simco Road (Maps 4 and 5). The need for the action is established under BLM's responsibility under FLPMA to respond to requests for a ROW grant for legal access and use of a define area for a defined purpose.

### **Proposed Action**

The IDARNG is currently working with the IDL to establish a long-term lease (20 years) on approximately 14,300 acres in Elmore County, Idaho (Maps 3 and 4). These lands would be used to conduct military maneuver training activities to meet DOD training requirements outlined in Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way.

Annual training operations would generally occur from March through November and would not exceed 20 mechanized or armor companies, approximately 6,400 soldiers and 880 tracked and wheeled vehicles. The type of military training activities conducted on the IDL lands would be the same as those currently conducted within the OCTC; however, the overall training footprint would be dispersed over a larger area.

The proposed training area will not be used for live fire operations. Force-on-force operations would only use blank fire and multiple integrated laser engagement system (MILES), or similar non-live fire systems for training purposes. Units operating in the area could remain overnight on established assembly areas or bivouac sites in order to conduct multi-day training events.

All military training activities conducted on IDL lands would comply with established standard operating protocols (SOP) and best management practices (BMP) outlined in IDARNG 350-12, DA pamphlet 385-63, and IDARNG pamphlet 100-1. In addition, these lands would be actively managed in coordination with IDL staff for fire suppression, natural resources, and cultural resources under Army Regulation (AR) 350-19, AR 200-1, and the IDARNG's Integrated Natural Resource Management Plan (INRMP), Integrated Cultural Resource Management Plan) ICRMP, and associated resource management documents currently used for the OCTC.

Some changes to existing infrastructure, primarily fences, may be required for training purposes. The IDARNG will coordinate with the IDL and existing permittees to make these modifications as needed. The IDARNG understands that changes to existing infrastructure may require funding in excess of the lease agreement to reimburse the permittee for infrastructure that they developed.

Access to the proposed training site would occur at Simco Road and Mountain Home north access point (Maps 3 and 4). The Simco Road access point would be the primary access and egress point for construction, maintenance, monitoring, and training activities (Map 4). A secondary access point would be located in Elmore County near the intersection of Old Oregon Trail Road and NW Bypass Road (Map 4). This point of access would only be used by wheeled vehicles, or if a tracked vehicle is transported to the access point via flatbed transport. This access point is primarily used for maintenance and monitoring activities, but may also be used as a training or construction access point on a limited basis.

In addition to a lease agreement, the IDARNG has submitted a right-of-way (ROW) application to the BLM and a road application to Elmore County to access the site from the OCTC via a connection across Simco Road (Maps 5 and 6). The proposed BLM ROW would utilize three existing access lanes (two tracks) on BLM lands totaling 5.62 linear miles (Map 6). The existing two tracks would be graded, widened, and reinforced with 3-inch minus road mix. The access road would also be engineered for runoff, and culverts would be located as needed to maintain hydrologic function of the area. The total construction area, road and drainage width, would be 30 feet wide, with a total affected area of roughly 20.4 acres on BLM lands.

### **Public Input Needed**

Public scoping for the proposed action will begin on March 9, 2018. Comments made on this proposal would be most helpful if they are received by May 1, 2018, and are directly relevant to the proposal and project area. It is anticipated that a preliminary EA will be made available for public comment in June



2018. Public scoping comments sent electronically should be sent to [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) with the title of this project in the subject line. Information about the project can also be found at the IDARNG website <http://emomil.state.id.us/> (Documents for Review), or the BLM website (<http://bit.ly/2gpOWdK>).

**Public Meetings**

In addition to this project scoping letter, two public scoping meetings will be held for scoping purposes. The first will be held in Ada County on April 4, 2018, from 4:00pm to 7:00pm at the Wyndham Garden Boise Airport (3300 S Vista Ave, Boise, ID 83705). The second will be held in Elmore County on April 5, 2018, from 4:00pm to 7:00pm at the Hampton Inn (3175 Foothills Ave, Mountain Home, ID 83647).

**Please send any written comments to:**

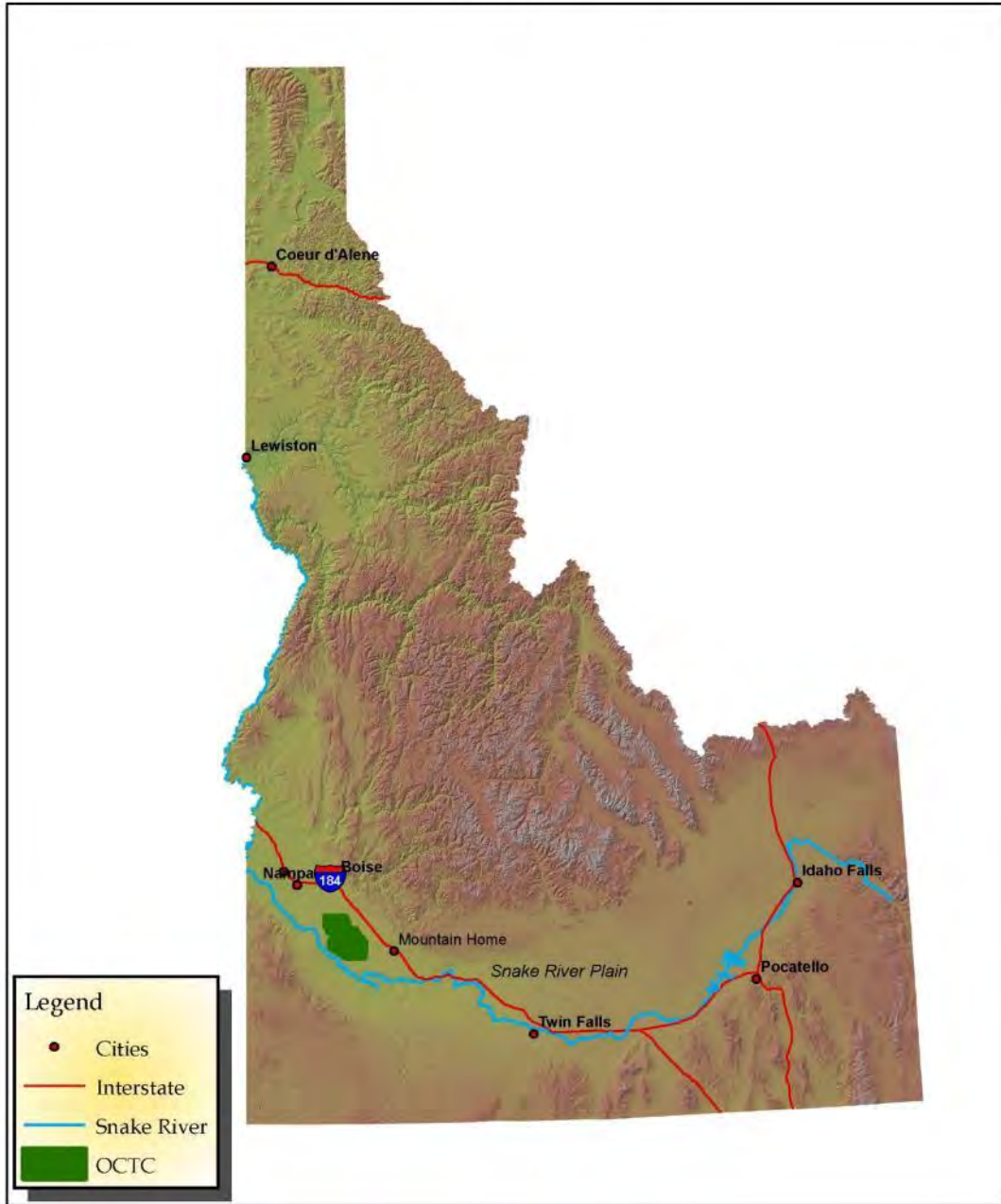
Idaho Army National Guard  
Environmental Management Office  
Attn: Charles Baun, Conservation Branch Manger  
4715 S. Byrd St., Bldg. 518  
Boise, Idaho 83705-8095

Or

Bureau of Land Management  
Attn: Charlotte Alexander, Realty Specialist  
3948 Development Ave.  
Boise, ID 83705

*Before including address, phone number, email-address, or any other personal identifying information in your comments, be advised that your entire comment, including personal identifying information, may be made publicly available at any time. While individuals may request that the BLM withhold personal identifying information from public view, the BLM cannot guarantee it will be able to do so. If you wish us to withhold your personal information you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, available for public disclosure in their entirety.*

# Orchard Combat Training Center Idaho



Universal Transverse Mercator Projection  
GIS Systems, Environmental Management Office, IDARNG

17 FEB 2012

Scale 1:4,000,000

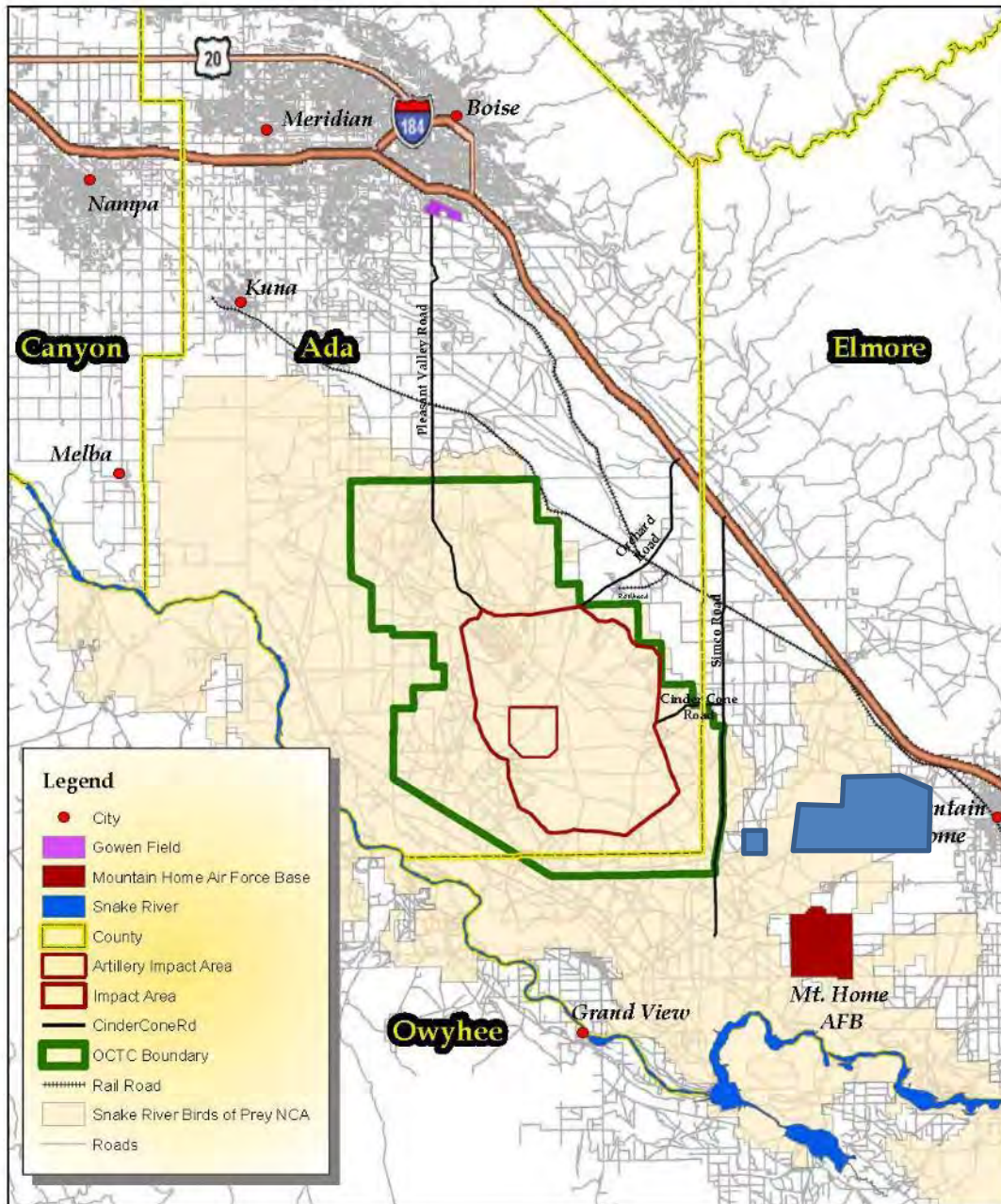
0 100 Kilometers

0 100 Miles

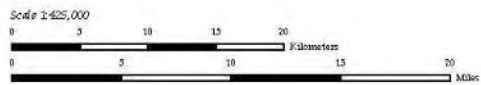


**Map 1. OCTC Regional Map.**

## Orchard Combat Training Center Vicinity

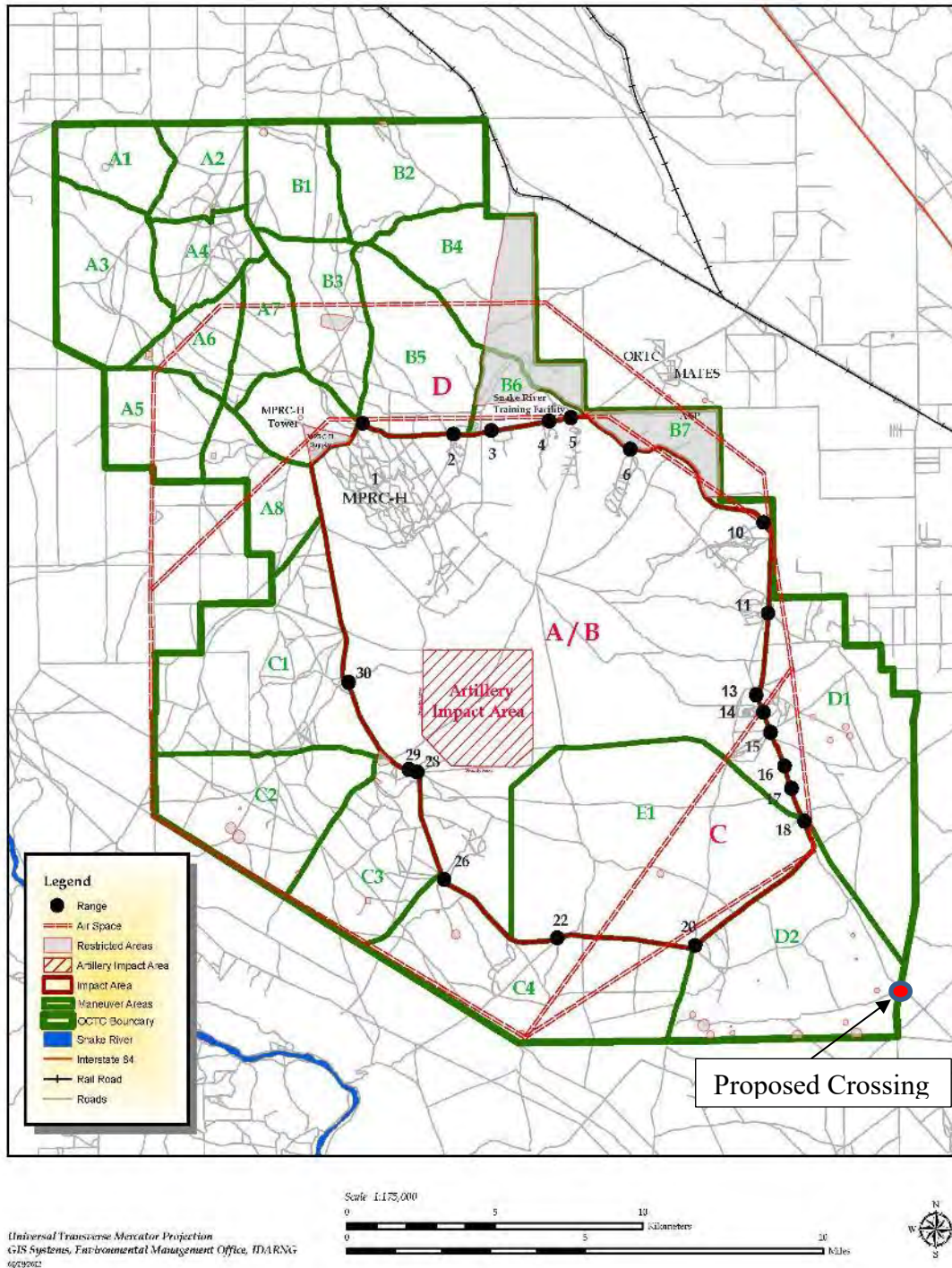


Universal Transverse Mercator Projection  
GIS Systems, Environmental Management Office, IDARNG  
04/9/2012



**Map 2. OCTC Vicinity Map and Project Area**

## Orchard Combat Training Center Ranges, Facilities, and Airspace



**Map 3. OCTC Maneuver Area Map.**







# **Proof of Publication**



**LEGAL PROOF OF PUBLICATION**

Account #	Ad Number	Identification	PO	Amount	Cols	Lines
262826	0003577140	LEGAL NOTICE Idaho Army National Guard - Er	EA Orchard	\$77.72	2	37

**Attention:** CHARLES BAUN

STATE OF IDAHO MILITARY DIVISION  
4040 W GUARD ST  
BOISE, ID 837055004

**LEGAL NOTICE**

**Idaho Army National Guard - Environmental Assessment (EA)**

The Idaho Army National Guard (IDARNG) is proposing to use lands owned by the Idaho Department of Lands (IDL) outside, but near to, the Orchard Combat Training Area (OCTC) for heavy maneuver training. The site is located east of Simco Road in Elmore County. The new training lands are required by the IDARNG to compensate for limited availability of heavy maneuver training areas and to meet current Department of Army (DA) standards to prepare for and ensure troop combat readiness. The proposed action would also require a right of way (ROW) from the Bureau of Land Management (BLM) Morley Nelson Snake River Birds of Prey National Conservation Area to access the IDL lands via routes east of Simco Road. The IDARNG and BLM will be conducting two public scoping meetings. The first will be held in Ada County on April 4, 2018, from 4:00pm to 7:00pm at the Wyndham Garden Boise Airport (3300 S Vista Ave, Boise, ID 83705). The second will be held in Elmore County on April 5, 2018, from 4:00pm to 7:00pm at the Hampton Inn (3175 Foothills Ave, Mountain Home, ID 83647). A scoping letter was sent out to interested parties on March 9, 2018. An electronic copy will also be available for download on the IDARNG's website <http://emomil.state.id.us/> (Documents for Review), and the BLM's website (<https://go.usa.gov/xnhYw>). The public will have until May 1, 2018 to review the project and submit comments. Public scoping comments and inquiries should be sent to [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) with the title of this project in the subject line. It is anticipated that the preliminary EA will be made available for public comment in June 2018, with a final decision expected to be made in August of 2018.

Pub. Mar. 22, 2018

0003577140-01

JANICE HILDRETH, being duly sworn, deposes and says: That she is the Principal Clerk of The Idaho Statesman, a daily newspaper printed and published at Boise, Ada County, State of Idaho, and having a general circulation therein, and which said newspaper has been continuously and uninterruptedly published in said County during a period of twelve consecutive months prior to the first publication of the notice, a copy of which is attached hereto: that said notice was published in The Idaho Statesman, in conformity with Section 60-108, Idaho Code, as amended, for:

1 Insertions

Beginning issue of: 03/22/2018

Ending issue of: 03/22/2018

*Janice Hildreth*  
\_\_\_\_\_  
(Legals Clerk)

STATE OF IDAHO )

.SS

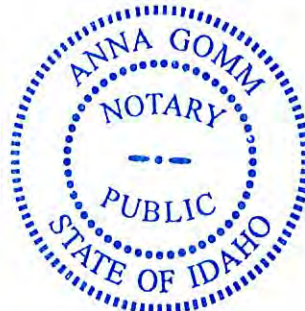
COUNTY OF ADA )

On this 23rd day of March in the year of 2018 before me, a Notary Public, personally appeared before me Janice Hildreth known or identified to me to be the person whose name subscribed to the within instrument, and being by first duly sworn, declared that the statements therein are true, and acknowledged to me that she executed the same.

*Anna Gomm*  
\_\_\_\_\_  
Notary Public FOR Idaho

Residing at: Boise, Idaho

My Commission expires: 03/17/2022



## **Idaho Army National Guard - Environmental Assessment (EA)**

The Idaho Army National Guard (IDARNG) is proposing to use lands owned by the Idaho Department of Lands (IDL) outside, but near to, the Orchard Combat Training Area (OCTC) for heavy maneuver training. The site is located east of Simco Road in Elmore County. The new training lands are required by the IDARNG to compensate for limited availability of heavy maneuver training areas and to meet current Department of Army (DA) standards to prepare for and ensure troop combat readiness. The proposed action would also require a right of way (ROW) from the Bureau of Land Management (BLM) Morley Nelson Snake River Birds of Prey National Conservation Area to access the IDL lands via routes east of Simco Road. The IDARNG and BLM will be conducting two public scoping meetings. The first will be held in Ada County on April 4, 2018, from 4:00pm to 7:00pm at the Wyndham Garden Boise Airport (3300 S Vista Ave, Boise, ID 83705). The second will be held in Elmore County on April 5, 2018, from 4:00pm to 7:00pm at the Hampton Inn (3175 Foothills Ave, Mountain Home, ID 83647). A scoping letter was sent out to interested parties on March 9, 2018. An electronic copy will also be available for download on the IDARNG's website <http://emomil.state.id.us/> (Documents for Review), and the BLM's website (<https://go.usa.gov/xnhYw>). The public will have until May 1, 2018 to review the project and submit comments. Public scoping comments and inquiries should be sent to [ng.id.idarng.list.ngid-emo@mail.mil](mailto:ng.id.idarng.list.ngid-emo@mail.mil) with the title of this project in the subject line. It is anticipated that the preliminary EA will be made available for public comment in June 2018, with a final decision expected to be made in August of 2018.

**Interested Parties  
Mailing List**

First Name	Last Name	Title	Affiliation	Address 1	Address 2	City	State	Zip	Phone	Email	Org Type	Notes
John	Anchustegui, Jr.			3054 East Rivernest Drive		Boise	ID	83706			Permittee	
Linda	Araujo	Member	Grand View City Council	425 Boise Ave.	PO Box 69	Grand View	ID	83709			Government	
Stacey	Baczkowski		Idaho Power Company	1221 W. Idaho St.		Boise	ID	83702-5627	208-388-5093	sbaczkowski@id	RAC	
Jesse	Barber	Faculty	Boise State University Raptor Research Center	1910 University Drive	Mail Stop 1516	Boise	ID	83725			Academic Institution	
Marc	Bechard	Director	Boise State University Raptor Research Center	1910 University Drive	Mail Stop 1516	Boise	ID	83725			Academic Institution	
Jim	Belthoff	Faculty	Boise State University Raptor Research Center	1910 University Drive	Mail Stop 1516	Boise	ID	83725			Academic Institution	
Donna	Bennett			573 N Bennett Rd.		Grand View	ID	83624	208-834-2398	bcattle@att.net	RAC	
Penny	Black		Joe Black & Sons	325 SW Hamilton Road		Mountain Home	ID	83647			Permittee	
Stan	Boyd		Idaho Grazing Board	PO Box 2596		Boise	ID	83701-2596			Industry	
Stan	Boyd		Wool Growers Association	802 W. Bannock St.	Suite 205	Boise	ID	83702-2839			Industry	
Lynnell	Brady		Shoshone-Paiute Tribes	PO Box 219		Owyhee	NV	89832-0219		brady.lynnela@	Tribe	
Jim	Brunett	Member	Grand View City Council	425 Boise Ave.	PO Box 69	Grand View	ID	83709			Government	
Mark	Bryant	Councilman	Mountain Home City Council	160 S. 3rd E. St.		Mountain Home	ID	83647			Government	
Betsy	Buffington	Director of Tra	Conservation Lands Foundation	834 E 2nd Ave. #314		Durango	CO	81301			Environmental Organization	
Matt	Bundy	Councilman	Mountain Home City Council	160 S. 3rd E. St.		Mountain Home	ID	83647			Government	
Jay	Carlisle	Faculty	Boise State University Raptor Research Center	1910 University Drive	Mail Stop 1516	Boise	ID	83725			Academic Institution	
John	Carothers			PO Box 385		Grand View	ID	83624			Permittee	
Dave	Case	Commissioner	Ada County Commission	200 W Front Street	3rd Floor	Boise	ID	83702			Government	
Jeff	Cook		Idaho Department of Parks & Recreation	PO Box 83720		Boise	ID	83720-0065			Government	
Bud	Corbus	Commissioner	Elmore County Commission	150 South 4 East		Mountain Home	ID	83647			Government	
Mike	Crapo	Senator	United States Senate	251 E. Front St.		Boise	ID	83702-7312			Government	
Christina	Cutler	Environmental	Shoshone-Bannock Tribes	PO Box 306		Fort Hall	ID	83203-0306	208-236-1083		Tribe	
Stephen	Damele, Jr.		Mule Shoe LLC	PO Box 141		Fairfield	ID	83627			Permittee	
Ron	Davison		LG Davidson & Sons Inc	1969 Prairie Raod		Mountain Home	ID	83647			Permittee	
Brett	Dumas	Environmental	Idaho Power Company	PO Box 70		Boise	ID	83707			Industry	
Blaine	Edmo	Tribal Chairma	Shoshone-Bannock Tribes	PO Box 306		Fort Hall	ID	83203-0306			Tribe	
Sandy	Epeldi		Idaho Outdoor Association	PO Box 15493		Boise	ID	83705			Industry	
Sean	Finn	President	Golden Eagle Audubon Society	PO Box 8261		Boise	ID	83707			Environmental Organization	
Katie	Fite		Wildlands Defense	PO Box 125		Boise	ID	83701-0125			Environmental Organization	
Jennifer	Forbey	Faculty	Boise State University Raptor Research Center	1910 University Drive	Mail Stop 1516	Boise	ID	83725			Academic Institution	
Leslie	Freeman		Wilderness Science Education	PO Box 3174		McCall	ID	83638			Environmental Organization	
Mark	Fuller	Faculty	Boise State University Raptor Research Center	1910 University Drive	Mail Stop 1515	Boise	ID	83725			Academic Institution	
Michael	Gibson		Trout Unlimited	1902 N. 15th Street		Boise	ID	83702	208-908-9185	mgibson@tu.org	RAC	
Celia	Gould	Director	Idaho Department of Agriculture	PO Box 790		Boise	ID	83701-0790			Government	
Franklin	Hart	Mayor	City of Grand View	425 Boise Ave.	PO Box 69	Grand View	ID	83709			Government	
Julie	Heath	Faculty	Boise State University Raptor Research Center	1910 University Drive	Mail Stop 1516	Boise	ID	83725			Academic Institution	
Darcey	Helmick		Grand View Farms	1301 Highway 67		Grand View	ID	83624			Permittee	
Darcey	Helmick		JR Simplot Co	1301 Highway 67		Grand View	ID	83624			Permittee	
Marie	Hipwell	Member	Grand View City Council	425 Boise Ave.	PO Box 69	Grand View	ID	83709			Government	
Russ	Hoeflich	President	The Peregrine Fund	5668 W. Flying Hawk Lane		Boise	ID	83709			Environmental Organization	
Al	Hofer	Chairperson	Elmore County Commission	150 South 4 East		Mountain Home	ID	83647			Government	
Bob	Howard		Howard Grazing Association, LLC	PO Box 123		Hammnett	ID	83627			Permittee	
Ted	Howard	Tribal Chairma	Shoshone-Paiute Tribes	PO Box 219		Owyhee	NV	89832-0219			Tribe	
Andrew	Johnson			PO Box 35		Hammnett	ID	83627			Permittee	
Greg	Kaltenecker	Executive Dire	Intermountain Bird Observatory	1910 University Drive	Mail Stop 1515	Boise	ID	83725			Academic Institution	
Tom	Kasper			3349 Hill Road		Melba	ID	83641			Permittee	
Michael	Kochert			1625 S 1625 E		Gooding	ID	83330		mkochert@usgs	Individual	
Raul	Labrador	Representative	United States House of Representatives	33 E. Broadway Ave.	Suite 251	Meridian	ID	83642-2619			Government	
Scott	Lake		Western Watersheds Project	PO Box 2863		Boise	ID	83701-2863			Environmental Organization	Sunnyside Winter & Sunnyside Spring/Fall Allotments / projects involving sheep or goats
Charlie	Lyons			11408 E. Highway 20		Mountain Home	ID	83647	587-8755	clyons714@gmail	RAC	
Tate	Mason	Interpretive Ce	The Peregrine Fund	5668 W. Flying Hawk Lane		Boise	ID	83709			Environmental Organization	
Jerry	McAdams			333 N Mark Stall Place		Boise	ID	83704	208-570-6576	jmcadams@city	RAC	
Donald	Mead	Member	Grand View City Council	425 Boise Ave.	PO Box 69	Grand View	ID	83709			Government	
Joe	Merrick	Chairperson	Owyhee County Commission	Owyhee County Courthouse	PO Box 128	Murphy	ID	83650			Government	
Joe	Merrick		Owyhee County Commission	27632 River Road		Bruneau	ID	83650	208-834-2641	jwmerrick@hotmail	RAC	
Virgil	Moore	Director	Idaho Department of Fish & Game	3101 South Powerline Road		Nampa	ID	83686-8520			Government	
Allison	Murray	Environmental	Idaho Power Company	PO Box 70		Boise	ID	83702	208.388.2418	amurray@idaho	Industry	
Nick	Nettleton			18542 Wilson Rd.		Glenns Ferry	ID	83623			Permittee	
Tom & Scott	Nicholson		TFI Incorporated	PO Box 690		Meridian	ID	83680			Permittee	
Charles	Olso			8813 Old Highway 30		Mountain Home	ID	83647			Permittee	
Brian	Orban		Mountain Home News	195 S 3rd E St.		Mountain Home	ID	83647		borban@mount	Media	
C.L. "Butch"	Otter	Governor	State of Idaho	PO Box 83720		Boise	ID	83720-0003			Government	
Rochelle	Oxarango			PO Box 552		Emmett	ID	83617	208-365-7172	vdotcattleco@gr	RAC	
Donald	Pape			3711 Little Road Road		Emmett	ID	83617			Permittee	
Fred	Perez	President	Mountain Home City Council	160 S. 3rd E. St.		Mountain Home	ID	83647			Government	
Bob	Pietras	Southwest Ida	Idaho Department of Lands	8355 W. State Street		Boise	ID	83714-6071			Government	
Richard	Raymondi			5670 N. Collister Dr.		Boise	ID	83703-3826	208-869-1043	rsray5@hotmail	RAC	

Tina	Reay			78 Stone Lane		Horseshoe Bend	ID	83629-9006	208-793-2819	<a href="mailto:treayhsb@fronti">treayhsb@fronti</a>	RAC
Jim	Risch	Senator	United States Senate	350 N 9th St.	Suite 302	Boise	ID	83702-5470			Government
John	Robison		Idaho Conservation League	PO Box 844		Boise	ID	83701-0844			Environmental Organization
Nathan	Roland	Deputy Base C	Mountain Home Air Force Base	336th Gunfighter Ave.		Mountain Home AFB	ID	83648			Government
Dana	Rutan			29730 River Road		Bruneau	ID	83604			Permittee
Jimmy	Schipani	Councilman	Mountain Home City Council	160 S. 3rd E. St.		Mountain Home	ID	83647			Government
Mike	Simpson	Representative	United States House of Representatives	802 W Bannock St.	Suite 600	Boise	ID	83702-5843			Government
Carolyn	Smith		Shoshone-Bannock Tribes	PO Box 306		Fort Hall	ID	83203-0306	208-236-1083		Tribe
Harry	Soulen		Soulen Livestock Company	1760 Fairmont Drive		Weiser	ID	83672			Permittee
Karen	Steenhof			18109 Briar Creek Road		Murphy	ID	83650-5006			RAC
Brian	Sybert	Executive Direc	Conservation Lands Foundation	834 E 2nd Ave. #314		Durango	CO	81301			Environmental Organization
Rick	Sykes	Mayor	City of Mountain Home	160 S. 3rd E. St.		Mountain Home	ID	83647			Government
Arthur	Talsma		The Nature Conservancy	10400 Duck Lane		Nampa	ID	83686	208-249-0734	<a href="mailto:arttalsma@gmail">arttalsma@gmail</a>	RAC
Jim	Tibbs	Commissioner	Ada County Commission	200 W Front Street	3rd Floor	Boise	ID	83702			Government
Yvette	Tuell		Shoshone-Bannock Tribes	PO Box 306		Fort Hall	ID	83203-0306	208-236-1083		Tribe
Rick	Visser	Commissioner	Ada County Commission	200 W Front Street	3rd Floor	Boise	ID	83702			Government
Bill	Walsh			205 20th Ave.		Caldwell	ID	83605	208-459-6871	<a href="mailto:bills_autorepair">bills_autorepair</a>	RAC
Heidi	Ware	Education and	Intermountain Bird Observatory	1910 University Drive	Mail Stop 1515	Boise	ID	83725			Academic Institution
Anne	Wilson		Faulkner Land & Livestock	1989 South 1875 East		Gooding	ID	83330			Permittee
Wes	Wooten	Commissioner	Elmore County Commission	150 South 4 East		Mountain Home	ID	83647			Government
Eric	Yensen		The College of Idaho	3407 Fairoaks Cir.		Caldwell	ID	83605	208-250-8239	<a href="mailto:eyensen@colleg">eyensen@colleg</a>	RAC
			Advocates for the West	PO Box 1612		Boise	ID	83701-1612			Environmental Organization
			Black Ranches	28892 Hot Springs Road		Bruneau	ID	83604			Permittee
			Bureau of Reclamation	1150 N Curtis Road	Suite 100	Boise	ID	83706-1234			Government
		Tribal Chairma	Burns Paiute Tribe	100 Pasigo Street		Burns	OR	97720-2442			Tribe
			Confederated Tribes of the Umatilla Indian Reservation	46411 Timine Way		Pendleton	OR	97801-9467			Tribe
			Idaho Cattle Association	PO Box 15397		Boise	ID	83715-5397			Industry
			Idaho Farm Bureau Federation	500 W. Washington		Boise	ID	83702-5965			Industry
			Idaho State Historic Preservation Office	210 W. Main St.		Boise	ID	83702-7264			Government
			Idaho Wildlife Federation	PO Box 6426		Boise	ID	83707-6426			Environmental Organization
		Tribal Chairma	Nez Perce Tribes	PO Box 365		Lapwai	ID	83540-0365			Tribe
			Sierra Club, Middle Snake Group	PO Box 552		Boise	ID	83701-0552			Environmental Organization
			The Nature Conservancy	950 W. Bannock St.	Suite 210	Boise	ID	83702-6093			Environmental Organization
			The Wilderness Society	950 W. Bannock St.		Boise	ID	83702-6106			Environmental Organization
			US Fish and Wildlife Service	1387 S. Vinnell Way		Boise	ID	83709-1657			Government
Joe	Merrick	Chairperson	Owyhee County Commission	Owyhee County Courthouse	PO Box 128	Murphy	ID	83650			Government
Jerry	Hoagland	Commissioner	Owyhee County Commission	Owyhee County Courthouse	PO Box 128	Murphy	ID	83650			Government
Kelly	Aberasturi	Commissioner	Owyhee County Commission	Owyhee County Courthouse	PO Box 128	Murphy	ID	83650			Government

# **Interested Parties Letters**



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Pat Baird, Tribal Historic Preservation Officer  
Nez Perce Tribe Executive Committee  
P.O. Box 305  
Lapwai, ID 83540-0305

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Mr. Baird,

The purpose of this letter is to inform the Nez Perce Tribe of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to our Memorandum of Understanding (MOU) Between the Nez Perce Tribe and the Idaho National Guard (IDNG) and Department of Defense (DOD) Interactions with Federally Recognized Tribes, the DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

In accordance with state and federal guidelines, the IDARNG has conducted cultural site clearances of the entire area. All surveys were conducted to Secretary of Interior standards. The IDARNG cultural staff will provide any information to you regarding the locations of any Native American archaeological sites or any other sites that may be of interest. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.

I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues, questions, or concerns to me at 208-422-5242 or Mr. Jake Fruhlinger, Idaho National Guard

**SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities**  
Page 2 of 2

Cultural Resources Manager and Tribal Liaison at 208-272-4192 or  
jake.c.fruhlinger.nfg@mail.mil.

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "M. J. Garshak", written in a cursive style.

Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures





**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Mary Jane Miles, Chairman  
Nez Perce Tribal Executive Committee  
P.O. Box 305  
Lapwai, ID 83540-0305

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Miles,

The purpose of this letter is to inform the Nez Perce Tribe of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to our Memorandum of Understanding (MOU) Between the Nez Perce Tribe and the Idaho National Guard (IDNG) and Department of Defense (DOD) Interactions with Federally Recognized Tribes, the DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

In accordance with state and federal guidelines, the IDARNG has conducted cultural site clearances of the entire area. All surveys were conducted to Secretary of Interior standards. The IDARNG cultural staff will provide any information to you regarding the locations of any Native American archaeological sites or any other sites that may be of interest. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.


I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues, questions, or concerns to me at 208-422-5242 or Mr. Jake Fruhlinger, Idaho National Guard

SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

Cultural Resources Manager and Tribal Liaison at 208-272-4192 or  
jake.c.fruhlinger.nfg@mail.mil.

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Eugene Greene Jr., Chairperson  
Chairman, Confederated Tribes of Warm Springs  
1233 Veterans Street  
Warm Springs, OR 97761

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Greene,

The purpose of this letter is to inform the Confederated Tribes of Warm Springs of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

In accordance with state and federal guidelines, the IDARNG has conducted cultural site clearances of the entire area. All surveys were conducted to Secretary of Interior standards. The IDARNG cultural staff will provide any information to you regarding the locations of any Native American archaeological sites or any other sites that may be of interest. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.

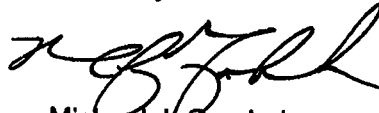
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**SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities**  
Page 2 of 2

Cultural Resources Manager and Tribal Liaison at 208-272-4192 or  
jake.c.fruhlinger.nfg@mail.mil.

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Garshak". The signature is fluid and cursive, with a prominent initial "M" and "G".

Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

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BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2017

Diane Teeman, Cultural Resources Director  
100 Pasigo Street  
Burns, OR 97720-9303

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Ms. Teeman,

The purpose of this letter is to inform the Burns Paiute Tribe of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

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**SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities**  
Page 2 of 2

**Cultural Resources Manager and Tribal Liaison at 208-272-4192 or  
jake.c.fruhlinger.nfg@mail.mil.**

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



**Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho**

**Enclosures**



**MILITARY DIVISION, STATE OF IDAHO**

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BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Eric Hawley, Chairperson  
100 Pasigo Street  
Burns, OR 97720-9303

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Hawley,

The purpose of this letter is to inform the Burns Paiute Tribe of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

In accordance with state and federal guidelines, the IDARNG has conducted cultural site clearances of the entire area. All surveys were conducted to Secretary of Interior standards. The IDARNG cultural staff will provide any information to you regarding the locations of any Native American archaeological sites or any other sites that may be of interest. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.


I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues, questions,

SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures





**MILITARY DIVISION, STATE OF IDAHO**

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BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Carolyn Boyer-Smith, Cultural Resources Director  
Shoshone-Bannock Tribes  
P.O. Box 306  
Fort Hall, ID 83203

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Ms. Boyer-Smith,

The purpose of this letter is to inform the Shoshone-Bannock Tribes of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to our Memorandum of Understanding (MOU) Between the Shoshone-Bannock Tribes and the Idaho National Guard (IDNG) and Department of Defense (DOD) Interactions with Federally Recognized Tribes, the DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

In accordance with state and federal guidelines, the IDARNG has conducted cultural site clearances of the entire area. All surveys were conducted to Secretary of Interior standards. The IDARNG cultural staff will provide any information to you regarding the locations of any Native American archaeological sites or any other sites that may be of interest. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.

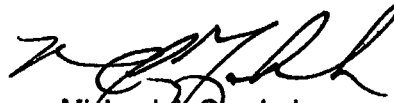
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**SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities**  
Page 2 of 2

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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Garshak". The signature is fluid and cursive, with a large initial "M" and "G".

Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

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BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Nathan Small, Chairman  
Shoshone-Bannock Tribes  
P.O. Box 306  
Fort Hall, ID 83203

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Small,

The purpose of this letter is to inform the Shoshone-Bannock Tribes of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to our Memorandum of Understanding (MOU) Between the Shoshone-Bannock Tribes and the Idaho National Guard (IDNG) and Department of Defense (DOD) Interactions with Federally Recognized Tribes, the DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

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Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures



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BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Ted Howard, Chairman  
Shoshone-Paiute Tribes of the Duck Valley Indian Reservation  
P.O. Box 219  
Owyhee NV 89832

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Howard,

The purpose of this letter is to inform the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to our Memorandum of Understanding (MOU) Between the Shoshone-Paiute Tribes and the Idaho National Guard (IDNG) and Department of Defense (DOD) Interactions with Federally Recognized Tribes, the DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

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Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

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BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Lynneil Brady, Cultural Resources Director  
Shoshone-Paiute Tribes of the Duck Valley Indian Reservation  
P.O. Box 219  
Owyhee NV 89832

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Ms. Brady,

The purpose of this letter is to inform the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
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Sincerely,



Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures





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BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Justina Paradise, Councilwoman  
Fort McDermitt Paiute and Shoshone Tribes  
P.O. Box 457  
McDermitt, NV 89421

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Councilwoman Paradise,

The purpose of this letter is to inform the Fort McDermitt Paiute and Shoshone Tribes of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
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Sincerely,

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Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures

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**MILITARY DIVISION, STATE OF IDAHO**

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C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 2018

Tildon Smart, Chairman  
Fort McDermitt Paiute and Shoshone Tribes  
P.O. Box 457  
McDermitt, NV 89421

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Smart,

The purpose of this letter is to inform the Fort McDermitt Paiute and Shoshone Tribes of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

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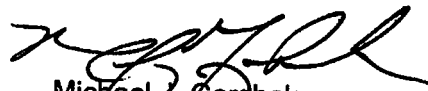
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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

THE ADJUTANT GENERAL  
MICHAEL J. GARSHAK

March 6, 2018

Darren Parry, Chairperson  
Northwestern Band of the Shoshone Nation  
707 North Main Street  
Brigham City, UT 84302

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed use of IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Parry,

The purpose of this letter is to inform the Northwestern Band of the Shoshone Nation of a proposed lease agreement between the Idaho Department of Lands (IDL) and the Idaho Army National Guard (IDARNG). The proposed lease would be on two IDL parcels east of Simco Road (Map 1), with a total area of 14,300 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plans.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed lease, infrastructure requirements, and military maneuver training on the IDL lands. As stated in the attached scoping packet, a right-of-way on Bureau of Land Management (BLM) lands would also be needed to access the IDL lands. The BLM will be responsible for conducting formal consultation on that aspect of the project.

In accordance with state and federal guidelines, the IDARNG has conducted cultural site clearances of the entire area. All surveys were conducted to Secretary of Interior standards. The IDARNG cultural staff will provide any information to you regarding the locations of any Native American archaeological sites or any other sites that may be of interest. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.

I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues,

SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

questions, or concerns to me at 208-422-5242 or Mr. Jake Fruhlinger, Idaho National Guard Cultural Resources Manager and Tribal Liaison at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



Michael J. Garshak  
Brigadier General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Blaine Edmo, Chairman  
Shoshone-Bannock Tribes  
P.O. Box 306  
Fort Hall ID 83203

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Edmo,

The purpose of this letter is to inform the Shoshone-Bannock Tribes of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed ROW and IDL land lease.

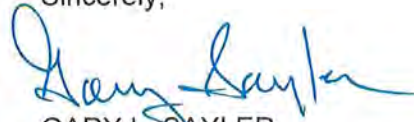
In accordance with state and federal guidelines, should the IDARNG begin training on the IDL lands, the IDARNG will provide information to you regarding the existence of sacred or religious historic properties and the locations of any Native American archaeological sites. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.

SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues, questions, or concerns to me at 208-422-5242 or Mr. Jake Fruhlinger, Idaho National Guard Cultural Resources Manager and Tribal Liaison at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures





**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Duane Masters Sr., Environmental Director  
Fort McDermitt Paiute and Shoshone Tribe  
P.O. Box 457  
McDermitt NV 89421

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Mr. Masters,

The purpose of this letter is to inform the Ft. McDermitt Paiute-Shoshone Tribe of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed ROW and IDL land lease.

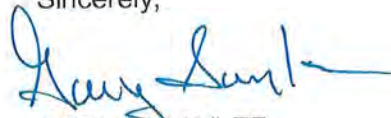
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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Brad Crutcher, Chairman  
Fort McDermitt Paiute and Shoshone Tribe  
P.O. Box 457  
McDermitt NV 89421

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Crutcher,

The purpose of this letter is to inform the Ft. McDermitt Paiute-Shoshone Tribe of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed ROW and IDL land lease.

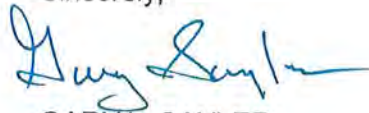
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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Eugene Greene Jr., Chairman  
Confederated Tribes of Warm Springs Reservation of Oregon  
P.O. Box C  
Warm Springs OR 97761

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Greene,

The purpose of this letter is to inform the Confederated Tribes of Warm Springs Reservation of Oregon about a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed ROW and IDL land lease.

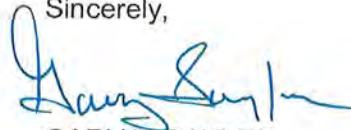
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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues, questions, or concerns to me at 208-422-5242 or Mr. Jake Fruhlinger, Idaho National Guard Cultural Resources Manager and Tribal Liaison at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Kenton Dick  
Burns Paiute Tribe  
100 Pasigo St.  
Burns, Or. 97720

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Mr. Dick,

The purpose of this letter is to inform the Burns Paiute Tribe of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed ROW and IDL land lease.

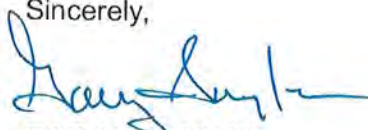
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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures





**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Joe DeLaRosa, Chairman  
Burns Paiute Tribe  
100 Pasigo St.  
Burns, Or. 97720

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman DeLaRosa,

The purpose of this letter is to inform the Burns Paiute Tribe of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed ROW and IDL land lease.

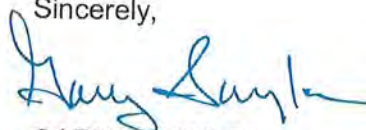
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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
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I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues, questions, or concerns to me at 208-422-5242 or Mr. Jake Fruhlinger, Idaho National Guard Cultural Resources Manager and Tribal Liaison at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Ted Howard, Cultural Resources Director  
Shoshone-Paiute Tribes of the Duck Valley Indian Reservation  
P.O. Box 219  
Owyhee NV 89832

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Mr. Howard,

The purpose of this letter is to inform the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

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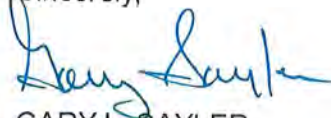
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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Carolyn Boyer-Smith, Cultural Resources Director  
Shoshone-Bannock Tribes  
P.O. Box 306  
Fort Hall ID 83203

**SUBJECT:** Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Ms. Boyer,

The purpose of this letter is to inform the Shoshone-Bannock Tribes of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

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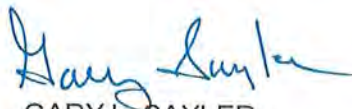
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SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
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Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures



**MILITARY DIVISION, STATE OF IDAHO**

4040 W. GUARD STREET, BLDG 600  
BOISE, IDAHO 83705-5004

C.L. "BUTCH" OTTER  
GOVERNOR

April 18, 2017

THE ADJUTANT GENERAL  
GARY L. SAYLER

Lindsey Manning, Chairman  
Shoshone-Paiute Tribes of the Duck Valley Indian Reservation  
P.O. Box 219  
Owyhee NV 89832

SUBJECT: Government to Government consultation for Section 106 compliance under the National Historic Preservation Act (NHPA) and National Environmental Policy Act (NEPA) related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for the purposes of military training activities.

Dear Chairman Manning,

The purpose of this letter is to inform the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation of a proposed right-of-way authorization process between the United States Bureau of Land Management (BLM) and the Idaho Army National Guard (IDARNG), and an associated lease agreement between the Idaho Department of Lands (IDL) and IDARNG.

The Idaho Army National Guard (IDARNG) is coordinating with the Idaho Department of Lands (IDL) to develop a lease on two IDL parcels east of Simco Road (Map 1). The total leased area would be roughly 14,000 acres. The land would be used for military maneuver training purposes and managed under the IDARNG's Integrated Natural and Cultural Resource Management Plan. In order to access the IDL parcels the IDARNG is requesting a right of way across BLM lands (Map 1). Our requested 30-foot-wide right-of-way would allow access to the leased parcels via existing tracks or construction of a new road with a more direct route. Any new road or improvement of existing roads, as well as all road maintenance, would meet or exceed BLM standards and be the responsibility of the IDARNG.

Pursuant to the Department of Defense (DOD) Interactions with Federally Recognized Tribes and DOD American Indian and Alaskan Native Policy, and numerous Presidential Memorandums, the IDARNG is requesting a meeting to discuss the details related to the proposed ROW and IDL land lease.

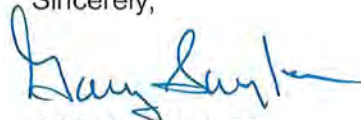
In accordance with state and federal guidelines, should the IDARNG begin training on the IDL lands, the IDARNG will provide information to you regarding the existence of sacred or religious historic properties and the locations of any Native American archaeological sites. The IDARNG will not make this information available to the public during any NEPA or Section 106 consultation process.

SUBJECT: Government to Government consultation for Section 106 compliance related to a proposed BLM ROW to access IDL lands in Ada and Elmore Counties for military training activities  
Page 2 of 2

I look forward to meeting with you as soon as it's convenient and welcome your participation and review of this proposed land exchange. Please direct any issues, questions, or concerns to me at 208-422-5242 or Mr. Jake Fruhlinger, Idaho National Guard Cultural Resources Manager and Tribal Liaison at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).

Thank you for taking the time to review this letter. The Idaho National Guard looks forward to working with you on this and future projects.

Sincerely,



GARY L. SAYLER  
Major General  
The Adjutant General, Idaho

Enclosures





**IDAHO NATIONAL GUARD  
JOINT FORCE HEADQUARTERS**  
4040 West Guard St., Bldg 600  
Boise, Idaho 83705-5004



NGID-EMO

3 December 2018

**MEMORANDUM FOR RECORD**

**SUBJECT: Consultation Regarding Enhancement Project**

1. The Simco East project comprises an area of approximately 20,829 acres of Bureau of Land Management (BLM) and State of Idaho lands east of and adjacent to the Idaho Army National Guard's (IDARNG) Orchard Combat Training Center (OCTC). The IDARNG is requesting a 60 foot ROW (30 feet from center) across BLM lands within the Morley Nelson Snake River Birds of Prey National Conservation Center (NCA) in order to access IDARNG-leased state lands to the east of Simco Road. Additionally, the IDARNG is currently working with the Idaho Department of Lands (IDL) to establish a long-term lease (20 years) on approximately 14,300 acres in Elmore County Idaho (Plot 21). These lands would be used to conduct military maneuver training activities to meet DOD training requirements outlined in Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way. The APE has been culturally used both prehistorically by Native Americans and historically by indigenous groups, migrants along the Oregon Trail, and contemporaneous public use. During 2016, an intensive survey of the Simco East project area was conducted to identify and protect resources that could potentially be impacted by construction and training activities. Pre-field research showed nineteen previously recorded sites, one of which has been recommended as eligible for the National Register of Historic Places (NHRP). A total of 445 isolates were found and 416 of which were noted but not recorded. The survey recorded 22 new sites: twelve historic, three prehistoric, two mutli-component, and five cairn sites. Three sites are recommended as eligible for the NHRP. The proposed project will have no effect to any of the previous or newly recorded sites. Further, the uncovering of basalt outcrops (rock bed floor) is indicative of uncovered site matrix, which leads to a corrupted time depth, therefore ruining the initial integrity of the cultural material. There is no effect to the other isolates. Therefore, the proposed project will have no effect on any known cultural properties that are recommended as eligible for listing to the NRHP.
2. In October 2018, the IDARNG prepared an environmental assessment (EA) to evaluate potential environmental, cultural, and social impacts associated with the construction, maintenance, and operations of Simco East.
3. BLM consultation was conducted with the Shoshone-Paiute Tribe through the Wings and Roots process regarding the Simco East project and Environmental Assessment on 3/18 and for Simco East Mitigation on 1/17, 2/17, 9/17, and 11/17.
4. The IDARNG sent consultation request letters and Scoping/Information Packets to the Nez Perce Tribe, Confederated Tribes of the Warm Springs, Burns Paiute Tribe, Fort McDermitt Shoshone and Paiute Tribe, Shoshone-Bannock Tribe, Shoshone-Paiute Tribe, and the Northwestern Band of the Shoshone Nation on 4/18/17, 1/5/2018 and again on 3/6/2018, which included an inclusive package of project description of Simco-East and Right-of-Way with maps and contact information and a request for consultation. As soon as the document has its final review from NGB and the BLM, a letter with attached document will go to the

Tribes for a 30 day review period requesting additional comments, etc. To date, there have been no issues raised by Tribes.

5. Concurrence letters were received from Travis Pitkin from Idaho State Historic Preservation Office (SHPO) and Dean Shaw from the BLM stating agreement on the status of no effect on any cultural resources on BLM land from the project on 3/15/2018 and 6/22/2018, respectively.
6. The Idaho SHPO reviewed the IDL sections of the report but neglected to send a concurrence letter. Due to this fact, on 10/15/2018, a meeting was conducted between the Idaho National Guard (IDNG) and Travis Pitkin and Matthew Halitsky from SHPO regarding final remarks on IDL lands surveyed as a part of the Simco East project. IDNG should be getting the final SHPO Concurrence letter regarding the IDL lands within the next two weeks. I spoke with Travis Pitkin (SHPO Compliance Archaeologist) on 11/15/18 requesting the final concurrence letter. He stated that they dropped the ball and will get me the letter as soon as possible. I spoke with Mr. Pitkin on 12/3/18 and he stated that the SHPO concurs and that there are no issues and that he will get me the letter by the end of the day Friday December 7th.
7. Point of contact for this action is the undersigned at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).



Jake Fruhlinger  
IDNG Cultural Resources Manager and Tribal Liaison

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**IDAHO NATIONAL GUARD  
JOINT FORCE HEADQUARTERS**  
4040 West Guard St., Bldg 600  
Boise, Idaho 83705-5004



NGID-EMO

14 January 2019

**MEMORANDUM FOR RECORD**

**SUBJECT:** Consultation Regarding Enhancement Project

1. The Simco East project comprises an area of approximately 20,829 acres of Bureau of Land Management (BLM) and State of Idaho lands east of and adjacent to the Idaho Army National Guard's (IDARNG) Orchard Combat Training Center (OCTC). The IDARNG is requesting a 60 foot ROW (30 feet from center) across BLM lands within the Morley Nelson Snake River Birds of Prey National Conservation Center (NCA) in order to access IDARNG-leased state lands to the east of Simco Road. Additionally, the IDARNG is currently working with the Idaho Department of Lands (IDL) to establish a long-term lease (20 years) on approximately 14,300 acres in Elmore County Idaho (Plot 21). These lands would be used to conduct military maneuver training activities to meet DOD training requirements outlined in Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way. The APE has been culturally used both prehistorically by Native Americans and historically by indigenous groups, migrants along the Oregon Trail, and contemporaneous public use. During 2016, an intensive survey of the Simco East project area was conducted to identify and protect resources that could potentially be impacted by construction and training activities. Pre-field research showed nineteen previously recorded sites, one of which has been recommended as eligible for the National Register of Historic Places (NHRP). A total of 445 isolates were found and 416 of which were noted but not recorded. The survey recorded 22 new sites: twelve historic, three prehistoric, two multi-component, and five cairn sites. Three sites are recommended as eligible for the NHRP. The proposed project will have no effect to any of the previous or newly recorded sites. Further, the uncovering of basalt outcrops (rock bed floor) is indicative of uncovered site matrix, which leads to a corrupted time depth, therefore ruining the initial integrity of the cultural material. There is no effect to the other isolates. Therefore, the proposed project will have no effect on any known cultural properties that are recommended as eligible for listing to the NRHP.
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"Jake,

Thank you for your recent inquiry regarding our review of the Simco East project. The project APE incorporates both BLM and State owned land. Our comments of 6/19/2018 addressed eligibility of cultural resources on both BLM and State land. However, as you have indicated, these comments agreed with a finding of "No Historic Properties Affected" for only those National Register eligible properties that are situated on BLM land. Upon further review, two eligible properties are located on State land for which our office has not provided comments regarding project effects. Sites 10EL2548 (temp. # GF-LS-16) and 10EL2569 (temp. # GF-LS-54) are both eligible properties located on State land. Provided 10EL2548 and 10EL2569 are avoided during project implementation, we agree a finding of "No Historic Properties Affected" is appropriate for the proposed Simco East project on State land, as well as on BLM land.

We appreciate you bringing this issue to our attention and the opportunity to rectify this oversight.

Thank you,  
Travis"

6. Point of contact for this action is the undersigned at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).

  
Jake Fruhlinger  
IDNG Cultural Resources Manager and Tribal Liaison

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## Fruhlinger, Jake C NFG (US)

---

**From:** Fruhlinger, Jake C NFG (US)  
**Sent:** Friday, December 7, 2018 2:42 PM  
**To:** Baun, Charles W NFG (US)  
**Subject:** FW: [Non-DoD Source] Simco East (BLM report no. 17FRFO31)

FYI

**From:** Travis Pitkin [mailto:Travis.Pitkin@ishs.idaho.gov]  
**Sent:** Friday, December 7, 2018 2:38 PM  
**To:** Fruhlinger, Jake C NFG (US) <jake.c.fruhlinger.nfg@mail.mil>  
**Subject:** [Non-DoD Source] Simco East (BLM report no. 17FRFO31)

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

Jake,  
Thank you for your recent inquiry regarding our review of the Simco East project. The project APE incorporates both BLM and State owned land. Our comments of 6/19/2018 addressed eligibility of cultural resources on both BLM and State land. However, as you have indicated, these comments agreed with a finding of "No Historic Properties Affected" for only those National Register eligible properties that are situated on BLM land. Upon further review, two eligible properties are located on State land for which our office has not provided comments regarding project effects. Sites 10EL2548 (temp. # GF-LS-16) and 10EL2569 (temp. # GF-LS-54) are both eligible properties located on State land. Provided 10EL2548 and 10EL2569 are avoided during project implementation, we agree a finding of "No Historic Properties Affected" is appropriate for the proposed Simco East project on State land, as well as on BLM land.

We appreciate you bringing this issue to our attention and the opportunity to rectify this oversight.

Thank you,  
Travis



**Travis Pitkin**  
Curator of Archaeology

(208) 488-7466

210 Main Street  
Boise, ID 83702

Caution-[www.history.idaho.gov](http://www.history.idaho.gov) < Caution-<http://www.history.idaho.gov> >

*Preserving the past, enriching the future.*

**SOUTHWEST AREA**  
8355 West State Street  
Boise ID 83714  
Phone (208) 334-3488  
Fax (208) 853-6372



**DUSTIN T. MILLER, DIRECTOR**  
EQUAL OPPORTUNITY EMPLOYER

**STATE BOARD OF LAND COMMISSIONERS**  
*Brad Little, Governor*  
*Lawrence E. Denney, Secretary of State*  
*Lawrence G. Wasden, Attorney General*  
*Brandon D. Woolf, State Controller*  
*Sherri Ybarra, Sup't of Public Instruction*

January 16, 2019

Col. William M. Myer  
111 South George Mason Drive  
Arlington, VA 22204-1373

via e-mail: Charles.w.baun.nfg@mail.mil

Re: Simco East Environmental Assessment

Dear Colonel Myer:

Thank you for the opportunity to comment on the proposed Environmental Assessment for your Simco East project.

As you may know, Idaho Department of Lands' (IDL) mission is to manage State Endowment Trust Lands (Endowment Lands) in a manner that will maximize long-term financial returns to the Beneficiary Institutions. The IDL mission is a constitutional mandate overseen by the State Board of Land Commissioners (Land Board). Endowment Lands are not managed for the public at large and should not be referred to as "public lands" or "open space," either specifically or in a generic sense. These are working lands producing revenue for the Beneficiary Institutions.

Assets are managed to provide a perpetual stream of income to the beneficiaries by:

- Maximizing long-term financial return at a prudent level of risk,
- Protecting future generations' purchasing power, and
- Providing a relatively stable and predictable payout to the Beneficiary Institutions.

The IDL fully understands the mission of the Idaho Army National Guard (IDARG) as it relates to the Orchard Combat Training Center (OCTC) and has had a long, mutually beneficial relationship with said party.

Per your letter dated January 9, 2019, the IDL would like to accept your invitation to participate as a Cooperating Agencies as outlined in the letter. Assistance will be provided by IDL as follows:

- Interdisciplinary team participation (when feasible),
- Participating in cooperating agency meetings, and
- Providing and reviewing information and analysis on issues for which IDL has jurisdiction by law or special expertise.

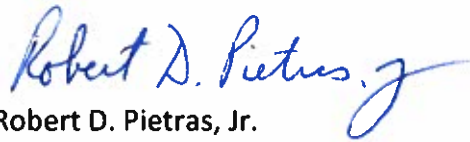
The primary point of contact for IDL will be Jenna Narducci, 208-334-0206 ([jnarducci@idl.idaho.gov](mailto:jnarducci@idl.idaho.gov)) with Ruth Luke, 208-334-3488 ([rluke@idl.idaho.gov](mailto:rluke@idl.idaho.gov)) as a backup.

Colonel William M. Myer  
January 16, 2019  
Page 2

Please include Dean Johnson ([DGJohnson@idl.idaho.gov](mailto:DGJohnson@idl.idaho.gov)) and myself ([bpietras@idl.idaho.gov](mailto:bpietras@idl.idaho.gov)) on any correspondence between our two entities related to this matter.

If I can be of further assistance please contact me at 208-334-3488 or email [bpietras@idl.idaho.gov](mailto:bpietras@idl.idaho.gov).

Respectfully,

A handwritten signature in blue ink that reads "Robert D. Pietras, Jr." with a stylized flourish at the end.

Robert D. Pietras, Jr.  
Southwest Idaho Area manager

cc: Jenna Narducci, Program Specialist  
Ruth Luke, Resource Specialist  
Jason Laney, Grazing and Agriculture Program manager  
Dean Johnson, Resource Supervisor  
Mike Murphy, Lands and Waterways Bureau Chief  
Ryan Montoya, Real Estate Bureau Chief  
Jay Hein, Operations Chief, South Idaho





- 1 **Appendix E**
- 2 **Agency Consultation and Coordination Documentation**

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**APPENDIX D:**  
**Mountain Home Highway District**  
**Simco Road Crossing Documentation**



**IDAHO NATIONAL GUARD**  
CONSTRUCTION AND FACILITIES MANAGEMENT OFFICE  
4715 South Byrd Street, Building 518  
Boise, Idaho 83705-8095



April, 28 2017

Mrs. Penny Meyers  
District Administrator  
Mountain Home Highway District  
P.O. Box 756  
1208 NW Mashburn  
Mountain Home, Idaho 83647

Dear Mrs. Meyers:

Per our discussion on the proposed tank crossing on Simco road the following information is provided in addition to the previously sent application:

The basic plan for use and crossing of vehicles over Simco road is to use soldiers as flaggers. Signs will be placed on the road to indicate "Flaggers ahead, use caution." When there is military movement all Simco will be stopped. As soon as the vehicle has passed Simco traffic will be allowed to continue. Once Simco traffic is clear, military traffic will be allowed to cross again. Our intent is to impede Simco traffic as little as possible.

The anticipated use of the site is:

Frequency: 24 instances of Battalion-level crossings. They go in, train, and come out. No back and forth.

Size: Battalion sized element. (Approximately 100 vehicles total; approx. 45 tracked vehicles, approx. 55 wheeled vehicles).

Time: Approximately 2 hours per crossing iteration, mainly between 10:00 pm and 5:00 am.

Our proposed construction plan and timeline is as follows:

Forty-five day construction period.

Temporary by-pass road around construction site.

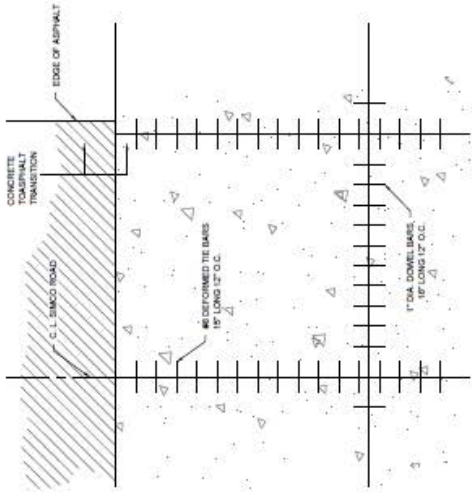
Construction to begin around July 1, 2017 if approved.

The point of contact for this issue is the undersigned at (208) 272-3730 or lee.d.rubel.mil@mail.mil.

LEE D. RUBEL  
Lieutenant Colonel, U.S. Army  
Deputy Construction & Facilities  
Management Officer

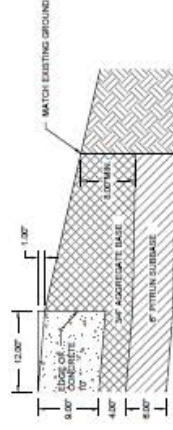


**SITE MAP**  
(1/8" = 1'-0" FULL SIZE)

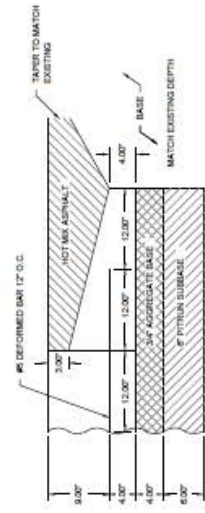


NOTE: SEE (SP)VC 3D-714 ACHD SUPPLEMENTAL

**C5** TYPICAL JOINT DETAILS



**B5** SLAB EDGE DETAIL



**A5** CONCRETE TO ASPHALT TRANSITION

# Mountain Home Highway District

P.O. Box 756 – 1208 NW Mashburn  
Mountain Home, Idaho 83647  
Office 208-587-3211 Fax 208-587-7129

(APPLICATION VOID AFTER 30 DAYS)

## APPLICATION AND PERMIT TO USE RIGHT OF WAY APPROACHES AND OTHER

COPY OF PERMIT MUST BE PRESENT AT WORK SITE DURING CONSTRUCTION

Public Road Surface Type: (Dirt) (Gravel) (Pavement)

Start Date: June 5, 2017

Est. Completion Date: August 1, 2017

Road Name: Simco Road

Location: 15.8 Miles south of I-84 on Simco Rd.

Sight Distance:

**NOTICE:**  
This permit shall not be valid for excavation until, or unless, the provisions of Idaho Code Title 55 Chapter 22 have been complied with. PRIOR TO EXCAVATION, CALL DIGLINE 1-800-342-1585

Posted Speed: 55 MPH

Quantity: \_\_\_\_\_ Width: 50' Surface Type: Concrete

Estimated Volume: 20 vehicles (Vehicle Count)

Military training \_\_\_\_\_ Idaho Army National Guard  
Type-Residence, Business, Field ETC. Type of Business

Explain: Construct a concrete tank crossing across Simco Road to allow for vehicle travel W-E and E-W.

ATTACH SKETCH OF PROPOSED WORK AND TRAFFIC CONTROL PLANS:

See page 2 for General Provisions.

I certify that I am the owner or authorized representative of the proposed property to be served and agree to do the work requested hereon in accordance with the General Requirements

Idaho National Guard  
Name of Permittee  
208-272-3345  
Phone Number

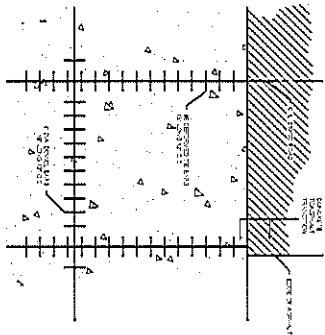
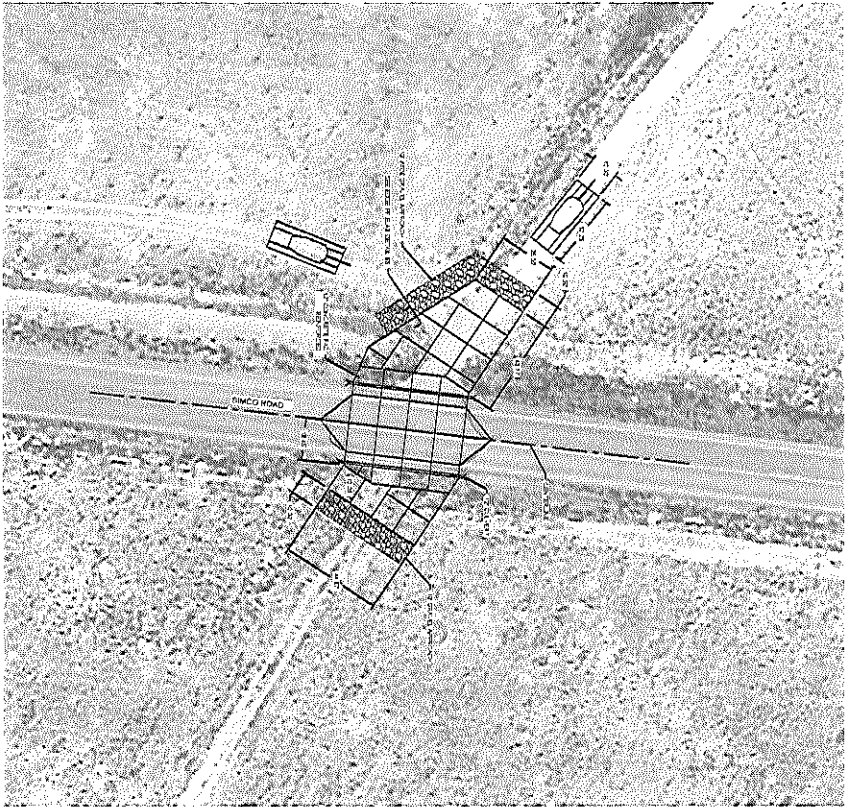
4715 S Byrd St, Boise, ID 83705  
Address of Permittee  
RUBELLE.DAVID.1064177920  
Signature of Authorized Representative  
27 April 2017  
Date

Subject to all terms, conditions, and provisions shown on this form or attachments, permission is hereby granted to the above applicant to perform the work described above.

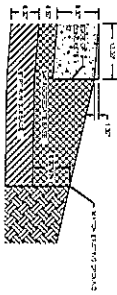
FOR LOCAL HIGHWAY JURISDICTION USE	
TEMPORARY PERMIT	FINAL PERMIT
Tentative approval subject to inspection of installation	Approved Date: _____ Rejected Date: _____
Date: 6-1-17	Corrections Required: _____
By: <i>Randy Meyer</i> MHHD Authorized Representative	Approved By: _____ MHHD Authorized Representative
	A5 Revised 2014



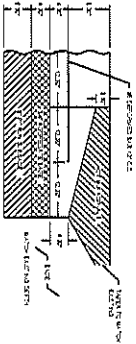
**SITE MAP**



**(C5) TYPICAL JOINT DETAILS**



**(B5) SLAB EDGE DETAIL**



**(A5) CONCRETE TO ASPHALT TRANSITION**

SITE MAP  
 SMCO ROAD TANK CROSSING  
 SMCO ROAD  
 ELMORE COUNTY MOUNTAIN HOME, IDAHO  
 T O ENGINEERING



CS-101

1:1  
 1/4" = 1'-0"  
 1/8" = 1'-0"  
 1/16" = 1'-0"  
 1/32" = 1'-0"

NO.	REVISION	DATE	BY	CHK

# Mountain Home Highway District

P.O. Box 756 – 1208 NW Mashburn  
Mountain Home, Idaho 83647  
Office 208-587-3211 Fax 208-587-7129

**(APPLICATION VOID AFTER 30 DAYS)**

## APPLICATION AND PERMIT TO USE RIGHT OF WAY APPROACHES AND OTHER

COPY OF PERMIT MUST BE PRESENT AT WORK SITE DURING CONSTRUCTION

Public Road Surface Type: (Dirt) (Gravel) (Pavement)

Start Date: June 5, 2017

Est. Completion Date: August 1, 2017

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Location: 15.8 Miles south of I-84 on Simco Rd.

Sight Distance: \_\_\_\_\_

**NOTICE:**  
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**PRIOR TO EXCAVATION, CALL DIGLINE**  
1-800-342-1585

Posted Speed: 55 MPH

Quantity: \_\_\_\_\_ Width: 50' Surface Type: Concrete

Estimated Volume: 20 vehicles (Vehicle Count)

Military training Idaho Army National Guard  
Type-Residence, Business, Field ETC. Type of Business

Explain: Construct a concrete tank crossing across Simco Road to allow for vehicle travel W-E and E-W.

ATTACH SKETCH OF PROPOSED WORK AND TRAFFIC CONTROL PLANS:

See page 2 for General Provisions.

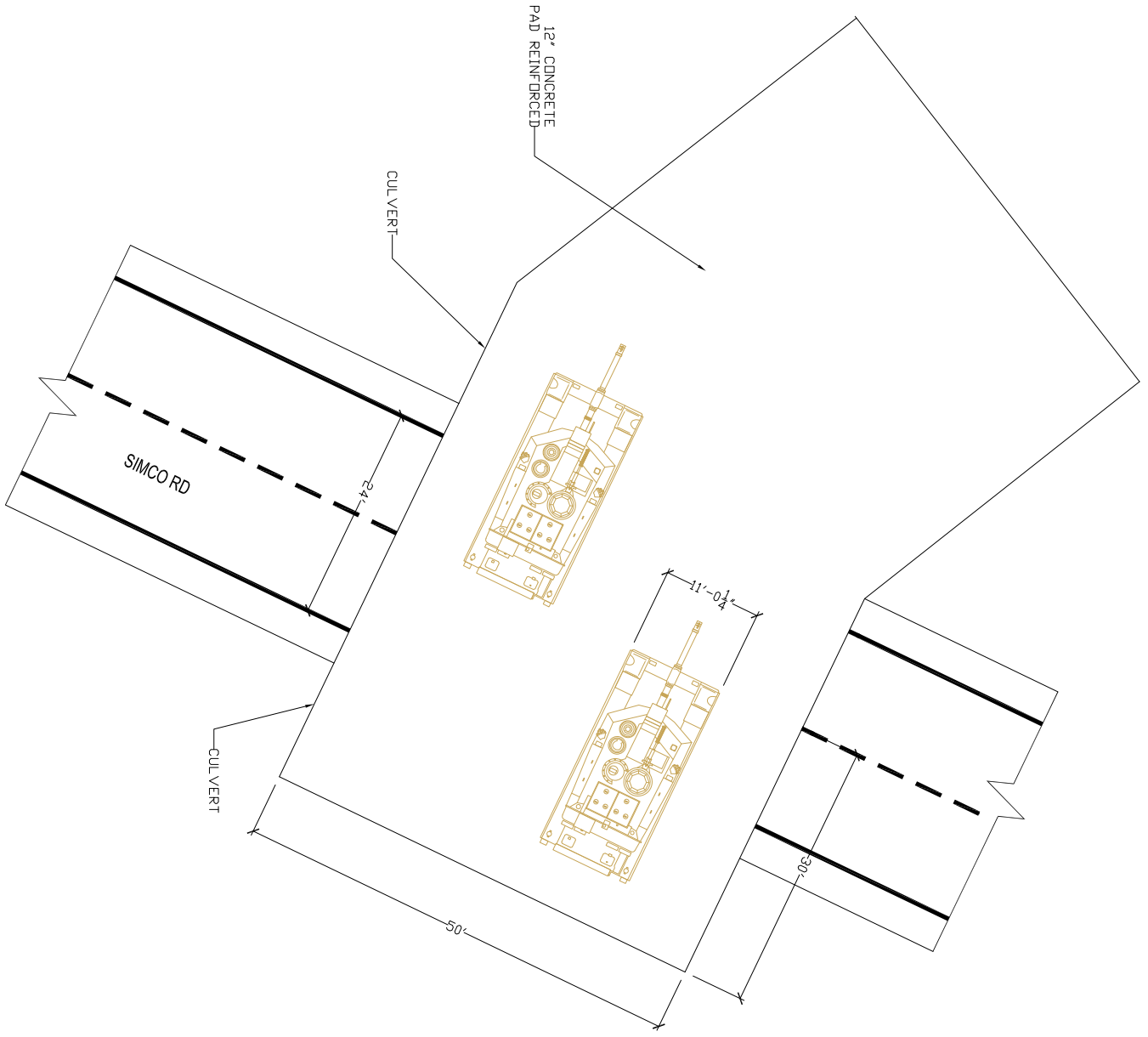
I certify that I am the owner or authorized representative of the proposed property to be served and agree to do the work requested hereon in accordance with the General Requirements

Idaho National Guard 4715 S Byrd St, Boise, ID 83705  
Name of Permittee Address of Permittee  
208-272-3345 27 April 2017  
Phone Number Signature of Authorized Representative Date

Subject to all terms, conditions, and provisions shown on this form or attachments, permission is hereby granted to the above applicant to perform the work described above.

FOR LOCAL HIGHWAY JURISDICTION USE	
TEMPORARY PERMIT	FINAL PERMIT
Tentative approval subject to inspection of installation	Approved Date: _____ Rejected Date: _____
Date: _____	Corrections Required: _____
By: _____ MHHD Authorized Representative	Approved By: _____ MHHD Authorized Representative
A5	Revised 2014





# Orchard Combat Training Center Simco Road Proposed Tank Crossing

- Site: 15.8 miles South of the south I-84 off ramp
- Between mile markers 16 and 17
- Existing side roads on both West and East



Aerial View



North of site looking South (MP 16)



South of site looking North (MP 17)



Site looking North



Site



Looking South



Site looking South



Site looking East



West side road



Site looking West



East side road



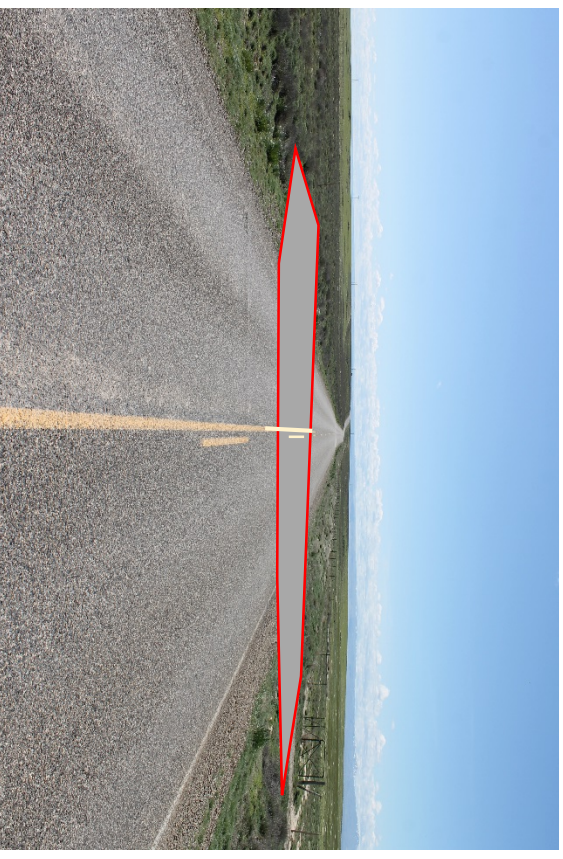
Total site looking West



West adjacent side road looking South

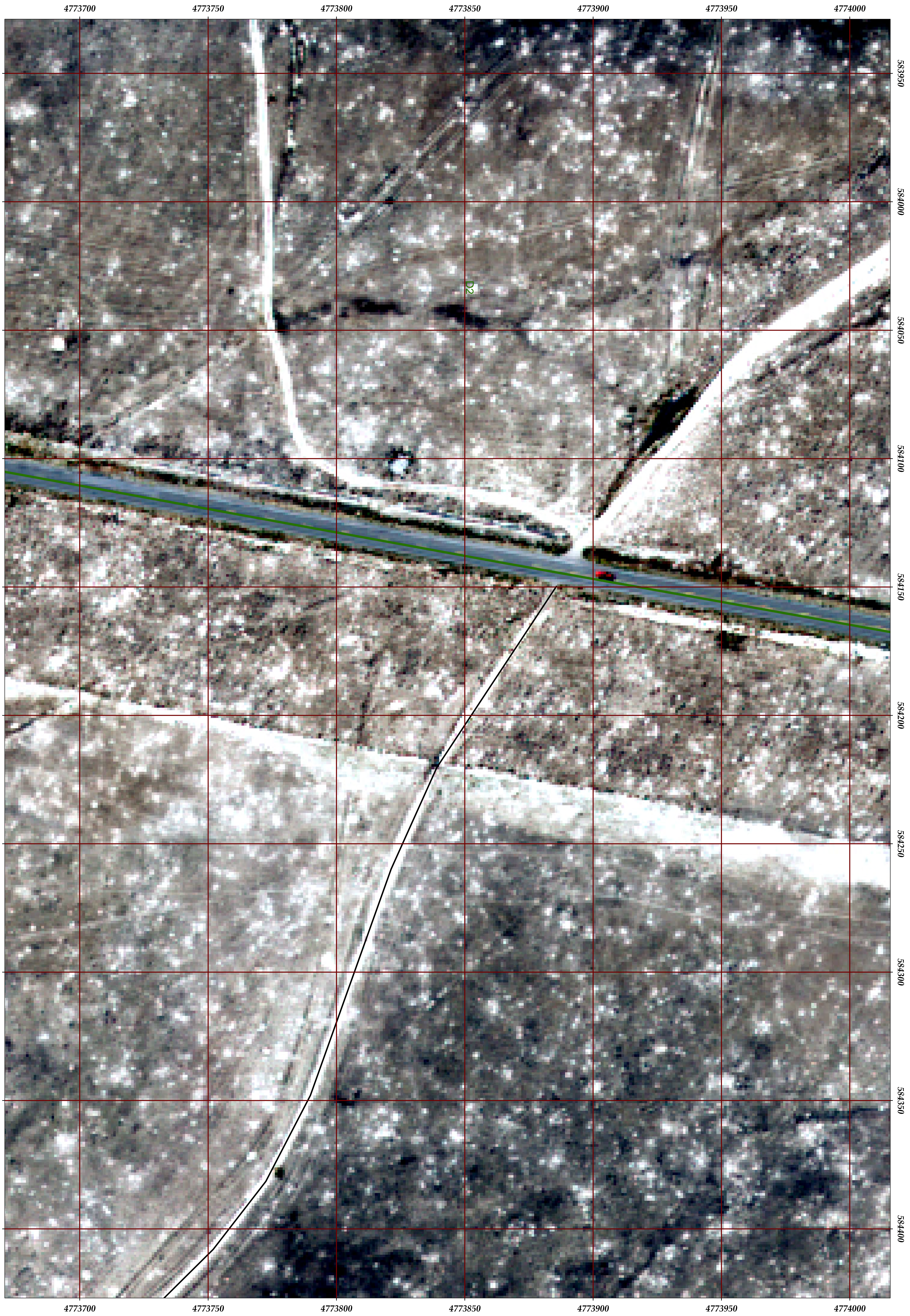


Existing OCTC perimeter markings



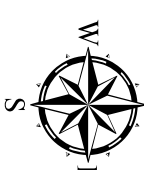
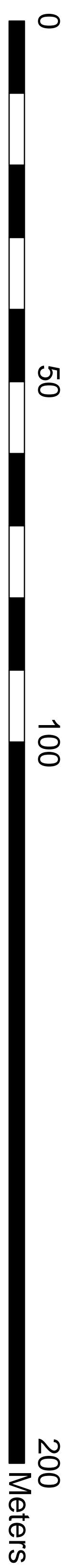
Site looking South

*Proposed Land Exchange - OCTC Simco Crossing*



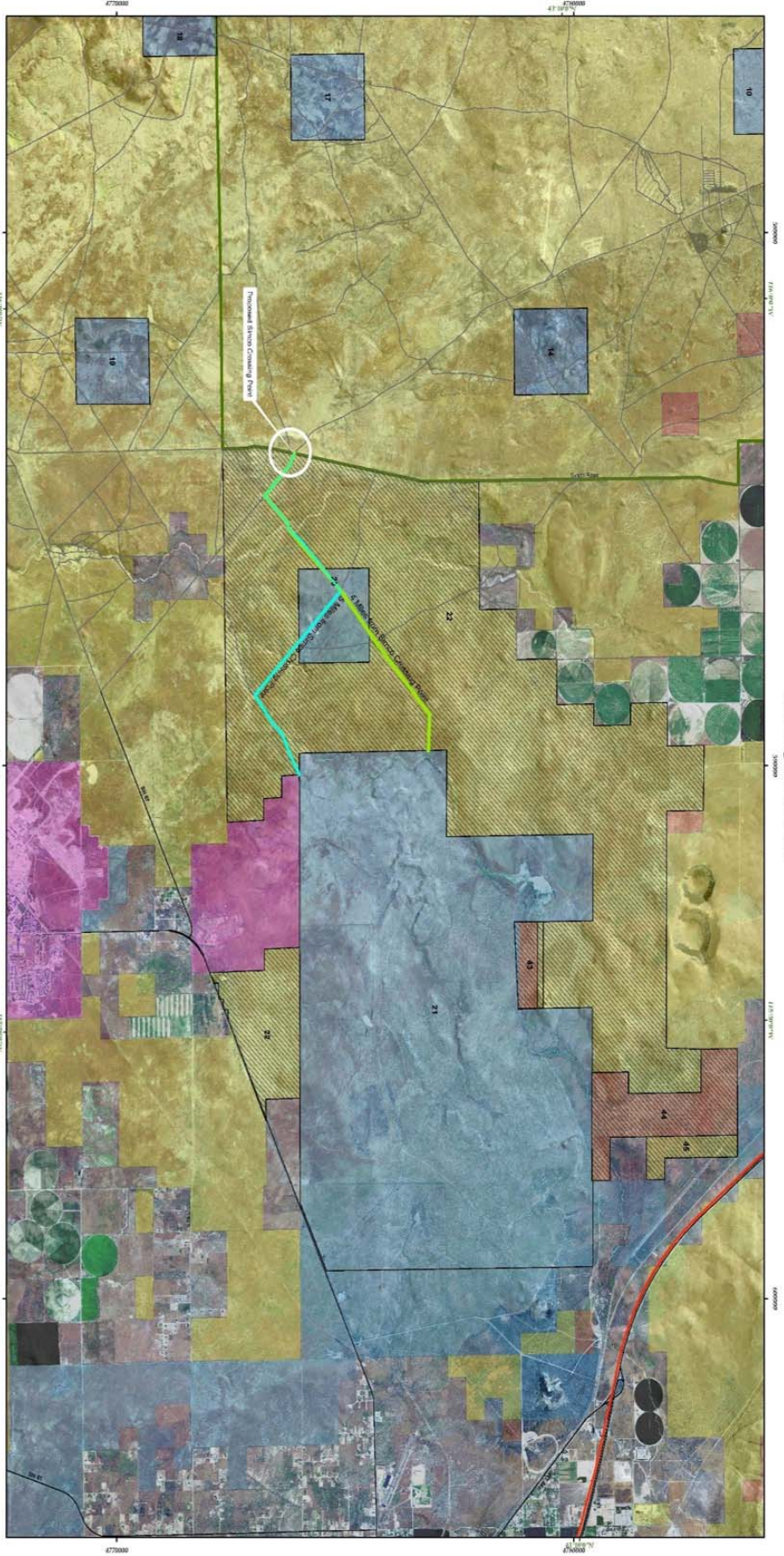
**Legend**

- State Land Access Road
- State/Use Now
- OCTC Area of Operations After Swap



UTM Zone 11 North Meters  
North American Datum 1983 / WGS84  
GIS Systems, Environmental Management Office, IDARMC  
18 April 2017 (90015\_StateLandAsOfCrossing)

# Proposed Land Exchange Between the Bureau of Land Management and the Idaho Department of Lands (BLM, IDL) Existing CONCEPT



**Legend**

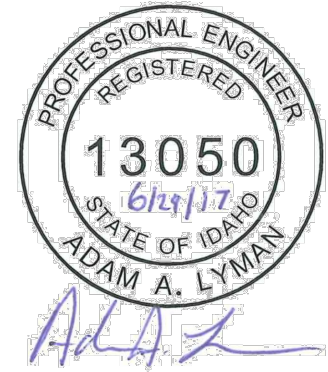
Route Options	Parcels of Interest	Ownership
5 mile route	State Parcel	STATE
4 mile route	BLM Parcel	PRIVATE
		MILL
		BOR
		BLM
		OCTC Boundary
		State Highways

UTM Zone 11 North America  
 Datum: NAD83  
 GCS: NAD83  
 Datum: NAD83  
 Spheroid: GRS 1980  
 Prime Meridian: Greenwich  
 Units: Meter  
 22 March 2018  
 IDL/BLM Joint Planning Meeting  
 IDL/BLM Joint Planning Meeting  
 IDL/BLM Joint Planning Meeting  
 IDL/BLM Joint Planning Meeting



# SIMCO ROAD TANK CROSSING SIMCO ROAD

ELMORE COUNTY, IDAHO  
17-4499Z  
06/27/2017



2101 Delta Drive  
Nampa, Idaho 83687  
Phone (208) 955-8126

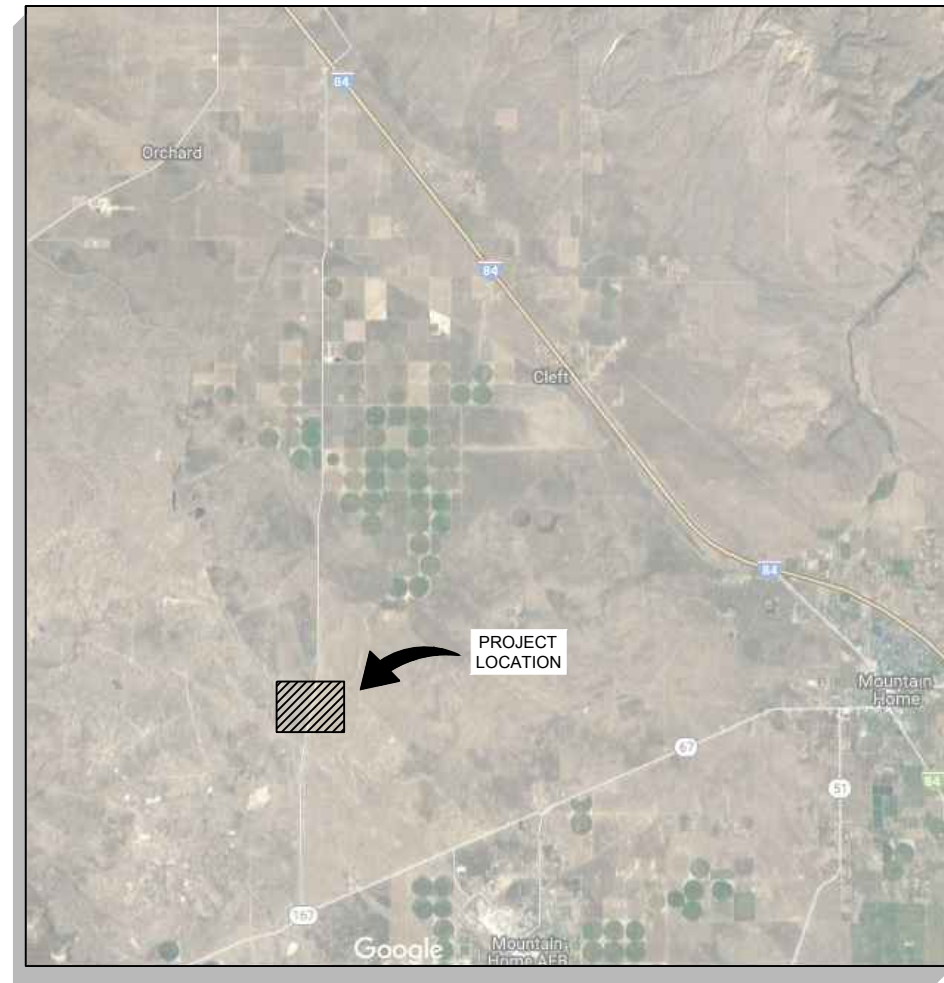
COVER SHEET  
SIMCO ROAD TANK CROSSING  
SIMCO ROAD  
ELMORE COUNTY MOUNTAIN HOME, IDAHO  
TO ENGINEERING



STATE OF IDAHO



PROJECT LOCATION



VICINITY MAP

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
G - GENERAL	
G-001	TITLE PAGE
CS - CIVIL SITE	
CS-101	SITE MAP
CS-102	JOINTING PLAN
CS-103	STRIPING PLAN
CS-501	DETAILS

REV. NO.	DATE	BY	DESCRIPTION

FILE NUMBER:  
17-4499Z

DESIGNED BY:  
A. LYMAN  
DRAWN BY:  
J. MATTHEWS  
DATE  
June 2017

SHEET NUMBER:

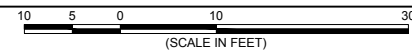
**G-001**





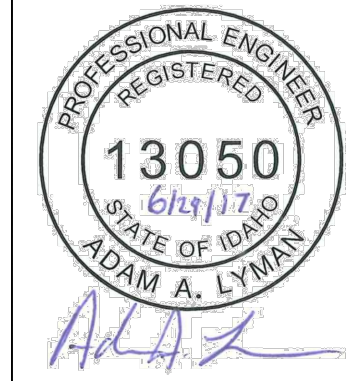
**SITE MAP**

1:10 (11 x 17 FULL SIZE)



**GENERAL NOTES**

1. CONTRACTOR TO SUBMIT TRAFFIC CONTROL PLAN. TRAFFIC CONTROL PLAN SHALL MEET THE MOST CURRENT MUTCD REQUIREMENTS AND SHALL BE APPROVED BY THE MOUNTAIN HOME HIGHWAY DISTRICT.
2. IT IS ANTICIPATED THE PROJECT WILL BE CONSTRUCTED IN TWO PHASES WITH ONE CONSTRUCTION JOINT AT THE ROADWAY CENTERLINE.
3. COORDINATE THE EXACT LOCATION OF THE CROSSING WITH THE IDAHO MILITARY DIVISION PROJECT MANAGER BEFORE BEGINNING CONSTRUCTION.
4. CONTRACTOR TO GRADE CONCRETE TO MATCH THE EXISTING ROAD SLOPES. SLOPE CONCRETE AWAY FROM ROAD TO GRAVEL TRANSITION.
5. CONTRACTOR TO GRADE NEW CULVERTS TO DRAIN WATER IN IN ROADSIDE DITCHES. ENSURE MINIMUM 18" BETWEEN THE TOP OF CONCRETE SURFACE AND THE TOP OF CULVERT. CONTRACTOR WILL GRADE BORROW DITCHES TO ENSURE POSITIVE FLOW THROUGH THE CULVERT AND TO MATCH EXISTING GRADES.
6. CULVERTS SHALL BE 12" DIAMETER MINIMUM 0.064" THICK CORRUGATED STEEL. EXTERIOR COATING SHALL BE AASHTO M190, TYPE A OR ALUMINIZED TYPE 2 COATING PER AASHTO M274.



16 12TH Ave. Ste. 112  
Nampa, Idaho 83651  
Phone (208) 955-8126

SITE MAP  
SIMCO ROAD TANK CROSSING  
SIMCO ROAD  
ELMORE COUNTY MOUNTAIN HOME, IDAHO  
T O ENGINEERING

NO.	DATE	BY	DESCRIPTION

FILE NUMBER:  
17-4499Z

DESIGNED BY:  
A. LYMAN

DRAWN BY:  
J. MATTHEWS

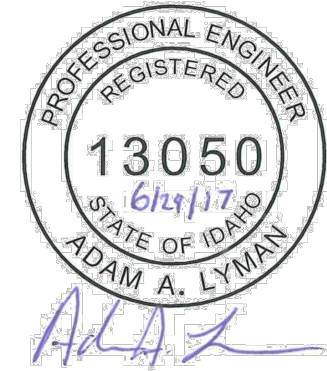
DATE

SHEET NUMBER:

**CS-101**

PLOTTED BY: JIM MATTHEWS DATE PLOTTED: 6/29/2017 8:10:29 AM PATH: C:\USERS\JIMDESKTOP\ABCO FOLDERS\ABCO CAD 17-4499Z\17-4499Z - 03 - CS-102.DWG

- ### GENERAL NOTES
- 18" LONG 1" DIAMETER DOWELL BARS AT 12" O.C.
  - 30" NO. 8 TIE BARS AT 12" O.C.
  - BEND TIE BARS 90° AT CONSTRUCTION JOINT UNTIL SHIFTING TRAFFIC TO THE OPPOSITE LANES.
  - ALL STEEL SHALL BE MINIMUM GRADE 60.



**ABCO**  
ENGINEERING

16 12TH Ave. Ste. 112  
Nampa, Idaho 83651  
Phone (208) 955-8126

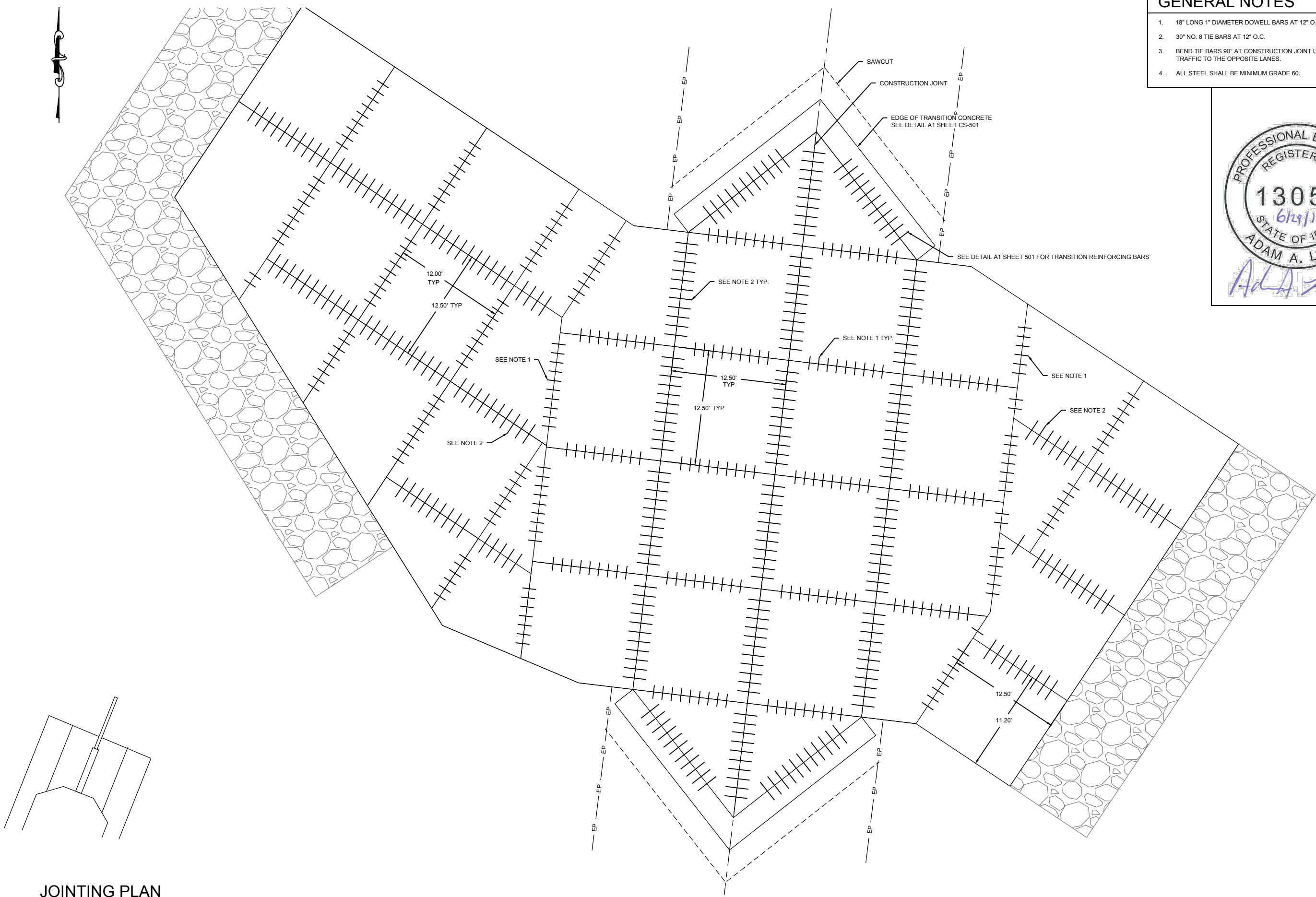
JOINTING PLAN  
SIMCO ROAD TANK CROSSING  
SIMCO ROAD  
ELMORE COUNTY MOUNTAIN HOME, IDAHO  
T O ENGINEERING

NO.	DATE	BY	DESCRIPTION

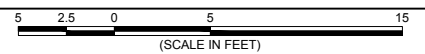
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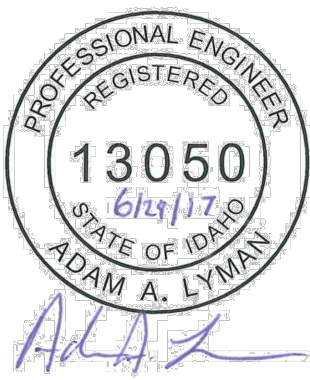
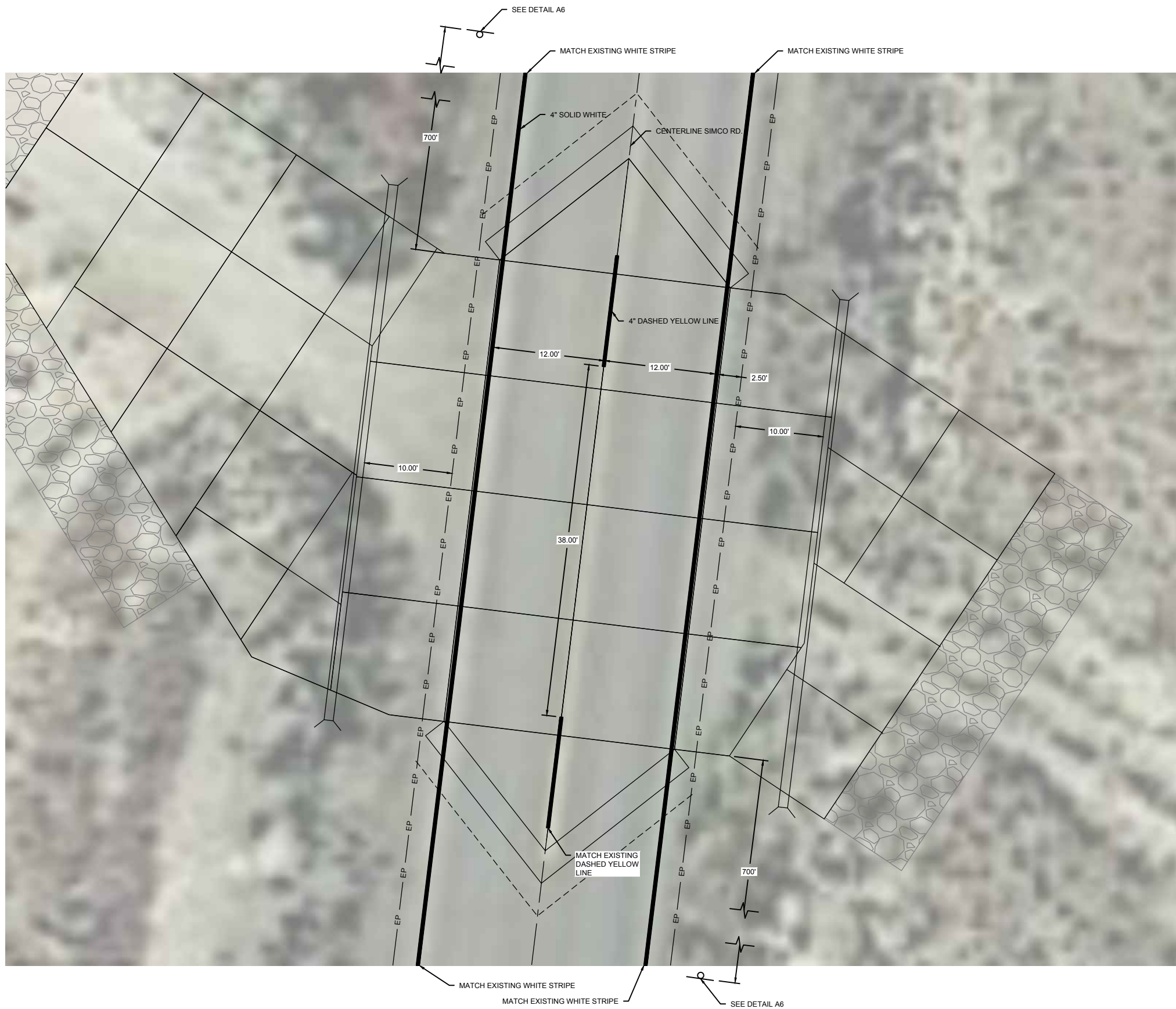
DESIGNED BY:  
A. LYMAN  
DRAWN BY:  
J. MATTHEWS  
DATE

SHEET NUMBER:  
**CS-102**  
3 OF 5



**JOINTING PLAN**  
1:10 (11 X 17 FULL SIZE)





**ABCO**  
ENGINEERING

16 12TH Ave. Ste. 112  
Nampa, Idaho 83651  
Phone (208) 955-8126

STRIPING PLAN  
SIMCO ROAD TANK CROSSING  
SIMCO ROAD  
ELMORE COUNTY MOUNTAIN HOME, IDAHO  
T O ENGINEERING

NO.	DATE	BY	DESCRIPTION

FILE NUMBER:  
17-4499Z

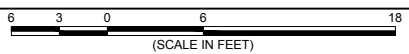
DESIGNED BY:  
A. LYMAN  
DRAWN BY:  
J. MATTHEWS  
DATE

SHEET NUMBER:  
**CS-103**  
4 OF 5



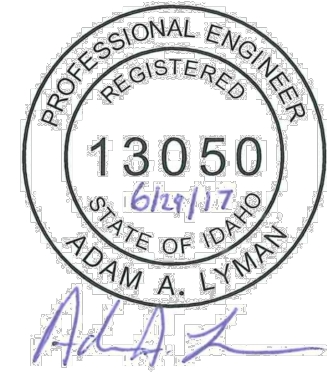
NOTE: USE 30 W8-6 FOR DIMENSIONS & COLORS

**A6** SIGN DETAILS  
NTS



**PAVEMENT STRIPING PLAN**

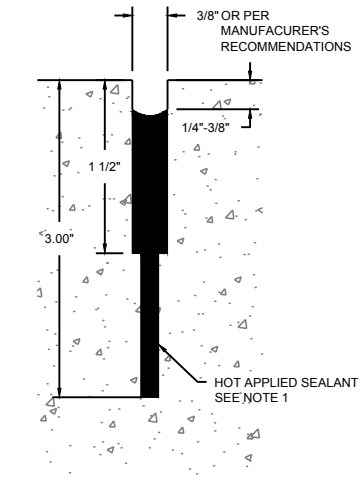
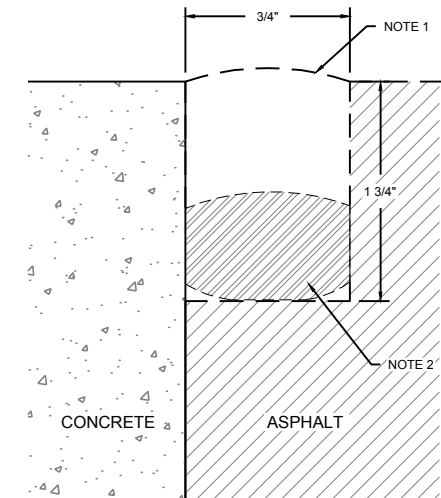
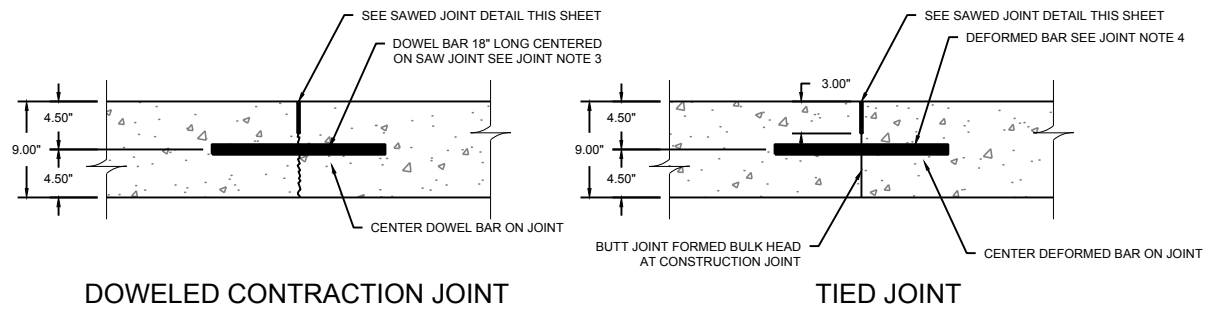
1:6 (11 x 17 FULL SIZE)



**ABCO**  
ENGINEERING

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Nampa, Idaho 83651  
Phone (208) 955-8126

DETAILS  
SIMCO ROAD TANK CROSSING  
SIMCO ROAD  
ELMORE COUNTY MOUNTAIN HOME, IDAHO  
TO ENGINEERING

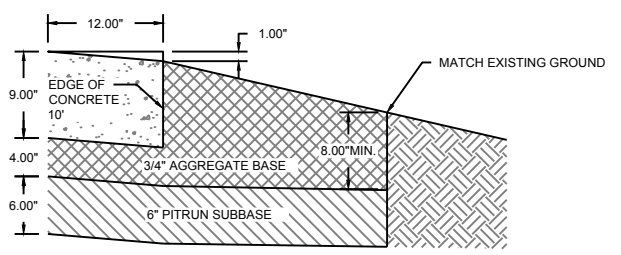
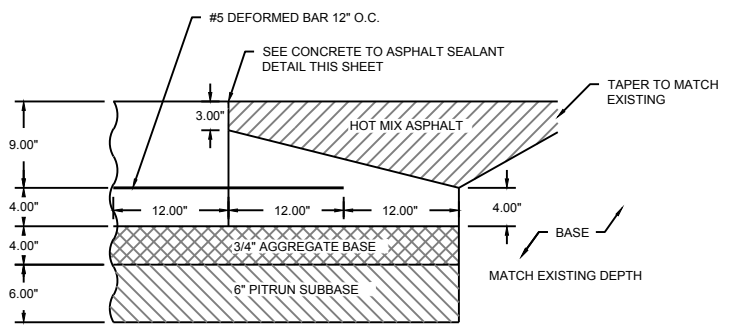


- JOINT NOTES:**
1. SAW CUTTING SHOULD BEGIN AS SOON AS THE CONCRETE HAS OBTAINED ADEQUATE STRENGTH TO RESIST RAVELING OF THE JOINT EDGES, GENERALLY BETWEEN 4 AND 24 HOURS AFTER PLACEMENT.
  2. JOINTS MUST BE FLUSHED OR BLOWN CLEAN IMMEDIATELY AFTER SAWING TO KEEP RESIDUE FROM SETTING UP.
  3. DOWEL BARS SHALL BE SMOOTH, ROUND 1" DIAMETER X 18" LONG DOWELS AT 12" ON CENTER, LIGHTLY GREASE DOWEL AND SET IN A DOWEL BASKET.
  4. DEFORMED BARS SHALL BE NO. 8 30" LONG AT 12" ON CENTER.

- SEALANT NOTES:**
1. LIQUID SEALANT MUST BE POLYMERIC ASPHALT BASED (ASTM D3405), BE HOT Poured, SINGLE OR TWO COMPONENT, AND SELF-LEVELING.
  2. BACKER ROD MUST BE COMPATIBLE WITH THE SEALANT AND SLIGHTLY OVERSIZED TO RESIST MOVEMENT DURING SEALING.
  3. PRIOR TO SEALING, THE JOINT OPENINGS SHOULD BE THOROUGHLY CLEANED OF CURING COMPOUND, RESIDUE, LAITANCE, AND ANY OTHER FOREIGN MATERIAL. PROPER CLEANING IS ESSENTIAL IN ORDER TO OBTAIN A JOINT SURFACE THAT WILL NOT IMPAIR BONDING OR ADHESION WITH THE SEALANT. CLEANING CAN BE DONE WITH SAND BLASTING, WATER, COMPRESSED AIR, OR WIRE BRUSHING. CLEANING SHALL ALSO BE ACCORDING TO THE SEALANT MANUFACTURER'S RECOMMENDATIONS.
  4. JOINT SURFACES SHALL BE DRY AND THE SEALANT SHALL NOT BE PLACED DURING COLD WEATHER OR WET PRIOR TO SEALANT PLACEMENT.
  5. SEALANT MATERIAL SHALL NOT BE SPILLED ON THE TOP OF EXPOSED CONCRETE SURFACES. ANY SPILLED SEALANT SHALL BE CLEANED FROM PAVEMENT SURFACES TO THE SATISFACTION OF THE ENGINEER.

**B1 JOINT DETAILS**  
NTS

**B4 SAWED JOINT**  
NTS



**A1 CONCRETE TO ASPHALT TRANSITION**  
NTS

**A3 SLAB EDGE DETAIL**  
NTS

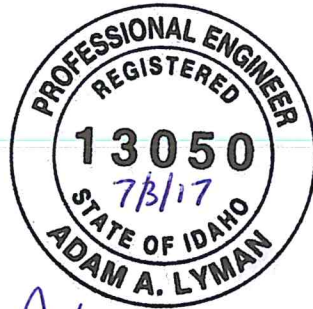
REVISIONS	DATE	BY	DESCRIPTION

FILE NUMBER:  
17-4499Z  
DESIGNED BY:  
A. LYMAN  
DRAWN BY:  
J. MATTHEWS  
DATE  
June 2017

SHEET NUMBER:  
**CS-501**  
5 OF 5

PLOTTED BY: JIM MATTHEWS DATE PLOTTED: 6/29/2017 8:11:43 AM PATH: C:\USERS\JIM\DESKTOP\ABCO FOLDERS\ABCO CAD 17-4499Z\17-4499Z-03 - CS-501.DWG

TECHNICAL SPECIFICATIONS  
OF  
CONSTRUCTION OF  
SIMCO ROAD TANK CROSSING  
ELMORE COUNTY, IDAHO  
FOR  
STATE OF IDAHO MILITARY DIVISION  
JULY 2017



*Adam A. Lyman*

ABCO ENGINEERING  
16 12<sup>th</sup> Ave St. Ste 112  
Nampa, Idaho 83651  
(208) 955-8126

**OWNER:**

**State of Idaho Military Division**  
Contracting Officer: Jackson Gray  
Phone: (208) 272-3732  
Project Manager: Jeff Hill  
Phone: (208) 272-3752

**PROJECT TITLE:**

**Simco Road Tank Crossing**  
Simco Road, Elmore County, Idaho  
ABCO Project: 17-4499Z

**PROJECT ADDRESS:**

**Idaho National Guard, Gowen Field**  
4040 W. Guard Street  
Boise, Idaho 83705

**CIVIL ENGINEER:**

**ABCO ENGINEERING**  
16 12<sup>th</sup> Ave St., Ste 112  
Nampa, Idaho 83651  
Phone: (208) 955-8126  
Fax: (208) 887-4927  
Contact: Adam Lyman, P.E.

Issued Set No. \_\_\_\_\_

**TECHNICAL SPECIFICATIONS  
OF  
CONSTRUCTION OF  
SIMCO ROAD TANK CROSSING  
ELMORE COUNTY, IDAHO  
FOR  
STATE OF IDAHO MILITARY DIVISION**

TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS

Division 1 – General Requirements	
01100 General Requirements	1-13
01770 Closeout Procedures	1-4

**SECTION 01100**  
**GENERAL REQUIREMENTS**

**PART 1      GENERAL**

This section supplements certain sections of the General Conditions. The General Conditions shall apply except as modified herein. These General Conditions and additional technical specifications may contain occasional requirements not pertinent to the project. However, these specifications shall apply in all particulars insofar as they are applicable to this project.

Whenever the terms “Architect” and “Engineer” are used in the contract documents, they are intended to refer to the lead designer for the Project (ABCO Engineering).

1.1      Applicable Standard Specifications

A. Idaho Standards for Public Works Construction (ISPWC) Manual, (current edition at date of bid opening), apply except as may be modified herein. In the case of discrepancy, unless noted otherwise herein, the more restrictive provisions shall apply.

1.2      Scope of Work

B. The work to be performed under these specifications and drawings consists of furnishing labor, materials, and equipment necessary for the construction of a concrete paved Tank crossing over Simco Road in Elmore County, Idaho. Work includes: Removal of existing asphalt, import and compact aggregate base material, and construct concrete pavement and gravel transition as shown on the plans.

C. The above general outline of principal features of the work does not in any way limit the responsibility of the CONTRACTOR(s) to perform all work and furnish all equipment, labor, and materials required by the specifications and drawings. The drawings and specifications shall be considered and used together. Anything appearing as a requirement of either shall be accepted as applicable to both, even though not so stated therein or shown.

1.3      Coordination of Drawings and Specifications

A. No attempt has been made in these specifications or drawings to segregate work covered by any trade or subcontract under one specification. Such segregation and establishment of subcontract limits will be solely a matter of specific agreement between the CONTRACTOR and its subcontractors and shall not be based upon any inclusion, segregation, or arrangement in or of these specifications.

1. Permits for outside agencies required by law
2. OWNER-CONTRACTOR Agreement



3. Addenda to Contract Documents
  4. CONTRACTOR's Proposal
  5. General Requirements
  6. Contract Drawings
  7. Technical Specifications
  8. Supplementary General Conditions
  9. General Conditions of the Contract
  10. Standard Specifications
  11. Standard Plans
- B. Dimensions shown on the drawings or those that can be computed shall take precedence over scaled dimensions. Notes on the drawings are part of the drawings and govern in the order described above.
- C. The intent of the drawings and specifications is to prescribe the details for the construction and completion of the work which the CONTRACTOR undertakes to perform according to the terms of the Contract. Where the drawings or specifications describe portions of the work in general terms, but details are incomplete or silent, it is understood that only the best general practice is to prevail and that only materials and workmanship of the best quality are to be used. Unless otherwise specified, the CONTRACTOR shall furnish all labor, materials, tools, equipment, and incidentals, and to all the work involved in executing the Contract in a manner satisfactory to the ENGINEER.
- D. The Contract drawings are designated by general title, sheet number, and sheet title. When reference is made to the drawings, the "Sheet Number" of the drawing will be used. Each drawing bears the ENGINEER's File No. 17-4499Z and the general title:

SIMCO ROAD TANK CROSSING  
SIMCO ROAD  
ELMORE COUNTY, MOUNTAIN HOME, ID

1.4 Code Requirements

All work shall be done in strict compliance with the requirements of:

- A. Idaho Standards for Public Work Construction (ISPWC)
- B. Environmental Protection Agency (EPA)
- C. Idaho Department of Environmental Quality (DEQ)

In case of disagreement between codes or these specifications, the more restrictive shall prevail.

1.5 Time of Completion/Liquidated Damages – NOT USED

1.6 Coordination with Other Contractors and with OWNER – CONTRACTOR shall coordinate with the Mountain Home Highway District. The CONTRACTOR shall submit a traffic control plan to the OWNER and the Mountain Home Highway District for approval.

1.7 Access to Work

Access to the work shall be provided, as may be required by the OWNER or its representatives, the Mountain Home Highway District, and all authorized representatives of the state and federal governments and any other agencies having jurisdiction over any phase of the work, for inspection of the progress of the work, the methods of construction, or any other required purposes.

1.8 Permits and Licenses – CONTRACTOR shall obtain a permit for use of the roadway and temporary traffic control from the Mountain Home Highway District.

1.9 Site Investigation and Physical Data

A. The CONTRACTOR acknowledges that it is satisfied as to the nature and location of the work and the general and local conditions, including but not limited to those bearing upon transportation, disposal, handling and storage of materials, availability of water, roads, groundwater, access to the sites, coordination with other contractors, and conflicts with utilities, structures, and other contractors. Information and data furnished or referred to herein is furnished for information only. Any failure by the CONTRACTOR to become acquainted with the available information and existing conditions will not be a basis for relief from successfully performing the work and will not constitute justification for additional compensation.

B. The CONTRACTOR shall verify the locations and elevations of existing pipelines, structures, grades, and utilities prior to construction. The CONTRACTOR shall be responsible to obtain both private and public locates prior to beginning construction. The OWNER assumes no responsibility for any conclusions or interpretations made by the CONTRACTOR on the basis of the information made available.

1.10 Temporary Utilities for Construction Purposes – NOT USED

1.11 Field Service by Manufacturer’s Representative – NOT USED

1.12 Operation and Maintenance Instructions – NOT USED

1.13 Construction Within Public Rights-of-Way – The right-of-way is owned by the Mountain Home Highway District. All construction within the right-of-way must meet the requirements of the Mountain Home Highway District.

1.14 Construction Within Private Easements – NOT USED

1.15 Traffic Control and Protection

- A. The CONTRACTOR shall coordinate with the OWNER and The Mountain Home Highway District to provide traffic control that will meet the most current requirement of the MUTCD.
- B. All work shall be carried with due regard for safety to the public. Open trenches shall be provided with barricades of a type that can be seen at a reasonable distance.

1.16 Independent Testing

- A. The CONTRACTOR shall provide the services of a licensed, independent agency to perform the required compaction, aggregates, concrete and asphalt testing for this project.
- B. Compaction tests will be required to show that specified densities of compacted subgrade and backfill are being achieved by the CONTRACTOR's compaction methods as required by Division 600 and 800 of the ISPWC. The CONTRACTOR shall immediately provide the ENGINEER with copies of proctor tests for the backfill material in addition to copies of compaction tests performed in the field. The subgrade soil will be compacted to meet the requirements of the ISPWC for embankment fill prior to placing base layers.
- C. The CONTRACTOR shall furnish and install culverts as required by Division 601 of the ISPWC. The CONTRACTOR shall immediately provide the ENGINEER with copies of any required test results.
- D. The CONTRACTOR shall furnish and install concrete pavement as required by Section 705 of the ISPWC. The CONTRACTOR shall immediately provide the ENGINEER with copies of any required test results.
- E. The CONTRACTOR shall furnish and install asphalt paving as required by Division 800 of the ISPWC. The CONTRACTOR shall immediately provide the ENGINEER with copies of any required test results.
- F. The CONTRACTOR shall furnish and install permanent pavement markings as required by Division 1104 of the ISPWC and permanent traffic signing as required by Division 1105 of the ISPWC. The CONTRACTOR shall immediately provide the ENGINEER with copies of any required results

1.17 Disposal/De-chlorination of Chlorinated Water – NOT USED

1.18 Limits of the Work and Storage of Spoils

- A. The limits of the site which may be used for construction, storage, materials, handling, parking of vehicles and other operations related to the project include the projects site as shown on the drawings and adjacent public rights-of-way subject to permission of the public owner of that right-of-way. The limits of work also include rights to access obtained by the CONTRACTOR, subject to all public laws and regulations and rights of access by utility companies and other holders of easement rights.
- B. Spoils may temporarily be stored on site with the approval of the OWNER and coordination of location.

#### 1.19 Field Changes, Alignment, and Grade

Changes of alignment and grade shall not be made during the course of work. The CONTRACTOR shall locate existing utilities to be crossed by potholing ahead of the beginning construction of sufficient distance to avoid conflicts with excavation to grade. All costs for minor field changes of alignment and grade shall be borne by the CONTRACTOR. The ENGINEER will endeavor to make prompt decisions on such matters. CONTRACTOR shall anticipate a minimum of 72 hours for any decision requiring significant grade change.

#### 1.20 Testing and Operations of Facilities – NOT USED

#### 1.21 Protection of Existing Structures and Work

The CONTRACTOR must take all precautions and measures necessary to protect all existing roadway. Any damage to existing roadway including fences and borrow areas shall be repaired by removing and replacing the damaged area and restoring to original condition satisfactory to the ENGINEER and OWNER.

#### 1.22 Salvage and Debris

Unless otherwise indicated on the drawings, in the specifications, or indicated by the OWNER, all castings, pipe, equipment, demolition debris, spoil or any other discarded material or equipment shall become the property of the CONTRACTOR and shall be disposed of in a manner compliant with applicable Federal State and local laws and regulations governing disposal of such waste products. No burning of debris or any other discarded material will be permitted.

#### 1.23 Safety Standards and Accident Prevention

- A. The CONTRACTOR shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. The required and/or implied duty of the ENGINEER to conduct construction review of the CONTRACTOR's performance does not, and is not intended to, include

review of the adequacy of the CONTRACTOR's safety measures in, on, or near the construction site.

- B. The CONTRACTOR shall comply with the safety standards provisions of applicable laws and building and construction codes. The CONTRACTOR shall exercise every precaution at all times for the prevention of accidents and protection of persons, including employees, and property. During the execution of the work the CONTRACTOR shall provide and maintain all guards, railing, lights, warnings, and other protective devices which are required by law or which are reasonably necessary for the protection of persons and property from injury or damage.

#### 1.24 Guaranty Period

Refer to Construction Contract for all warranty and guaranty requirements and timelines.

#### 1.25 Submittals

- A. The CONTRACTOR shall provide shop drawings, schedules, and such other drawings as may be necessary for the prosecution of the work in the shop and in the field as required by the contract documents as specified by ISPWC or ENGINEER's instructions.
- B. Within 14 days after award of the contract, the CONTRACTOR shall submit to the OWNER a proposed list of manufacturers, suppliers, and subcontractors and a schedule of specific target dates for the submission and return of shop drawings required by the contract documents. Said list and schedule shall be updated and resubmitted when requested by the OWNER. All shop drawings for interrelated items shall be scheduled for submission at the same time. Not less than 1 week shall be allocated to each submittal for processing by the OWNER. A PDF copy of all submittals shall be provided to the OWNER.
- C. The OWNER will review shop drawings to determine compliance with the design concept of the project and return them to the CONTRACTOR within 10 working days of receiving the submittal. The OWNER may hold shop drawings in cases where partial submission cannot be reviewed until the complete submission has been received or where shop drawings cannot be reviewed until correlated items affected by them have been received. When such shop drawings are held, the OWNER will advise the CONTRACTOR in writing that the shop drawing submitted will not be reviewed until shop drawings for all related items have been received.
- D. The CONTRACTOR shall submit to the OWNER, for review, a PDF of each submittal, shop drawing, diagram and catalog information for fabricated items and manufactured items required for construction. The OWNER will review the submitted data and shop drawings, and will make notations thereon indicating (No Exception Taken", "Make Corrections Noted", "Rejected", "Revise and Resubmit", or "Submit Specified Item." The OWNER will then return two copies of the

submitted data and shop drawings to the CONTRACTOR. The OWNER's review of submittals and shop drawings is not a check of any dimension or quantity, and will not relieve the CONTRACTOR from responsibility for errors of any sort in the submittals and shop drawings.

- E. When shop drawings and/or submittals are required to be revised or corrected and resubmitted, the CONTRACTOR shall make such revisions and/or corrections and resubmit those items or other materials in the same manner as specified above.
- F. Submitted data shall be sufficient in detail for determination of compliance with the Contact Documents. Color samples for all items for which colors are to be selected shall be submitted at the same time. No equipment or material for which listings, drawings, or descriptive material is required shall be installed until the CONTRACTOR has received review from the OWNER.
- G. Regardless of corrections made in or review given to the drawings by the ENGINEER, the CONTRACTOR shall be responsible for the accuracy of such drawings and for their conformity to the drawings and specifications. The CONTRACTOR shall check all submittals before submitting them to the OWNER and shall stamp its approval on all copies of the shop drawing documents. Any submittals received by the OWNER which do not bear the CONTRACTOR's approval shall be returned without review. If more than two (2) submissions are required to meet the project specifications, the cost of reviewing these additional submissions may be charged directly against the CONTRACTOR and the OWNER may withhold the funds necessary to cover these costs.
- H. Materials and equipment shall be ordered a sufficient time in advance to allow time for reviews. And shall be available on the job when needed. Last minute review will not be given for inferior substitutes for material or equipment.
- I. Required submittals include items listed below. List is provided for CONTRACTOR convenience only and may not be complete in all respects. CONTRACTOR shall provide all submittals required, whether or not specifically listed herein.
  - 1. Construction Schedule (see paragraph 1.26 this section).
  - 2. Shop Drawings – The CONTRACTOR shall provide shop drawings, schedules, and such other drawings as may be necessary for the prosecution of the work in the shop and in the field as required by the contract documents or OWNER's instruction.
  - 3. Independent Testing Results
  - 4. Materials Lists
  - 5. CONTRACTOR Contact Persons
  - 6. Miscellaneous Materials and Other Submittals as required by the contract documents, ISPC specifications, or ENGINEER's instruction.

## 1.26 Construction Schedule

A. The CONTRACTOR shall prepare and submit to the ENGINEER, within fifteen days after notice to proceed, a schedule showing the order in which the CONTRACTOR proposes to carry out the work, the dates in which the important features of the work will start, and the contemplated dates for completing same. The CONTRACTOR shall submit a detailed CPM logic diagram. The CPM diagram shall include the following:

1. Construction activities
2. Submittal and approval of material samples and shop drawings
3. Procurement of critical materials
4. Fabrication, installation, and testing of special material and equipment
5. Duration of work, including completion times of all stages and their sub-phases

#### 1.27 Utility Properties and Service

A. IN areas where the CONTRACTOR's operations are adjacent to or near a utility and such operations may cause damage which might result in significant expense, loss and inconvenience, the operations shall be suspended until all arrangements necessary for the protection thereof have been made by the CONTRACTOR

B. The CONTRACTOR shall notify all utility offices which may be affected by the construction operation at least 48 hours in advance. Before exposing any utility, the utility having jurisdiction shall grant permission and may oversee the operation. Should service of any utility be interrupted due to the CONTRACTOR's operation, the proper authority shall be notified immediately. It is of the utmost importance that the CONTRACTOR cooperates with the said authority in restoring the service as promptly as possible. Any costs shall be borne by the CONTRACTOR.

#### 1.28 Sanitary Facilities

The CONTRACTOR shall provide and maintain sanitary facilities for its employees and its subcontractors' employees that will comply with the regulations of the local and State Departments of Health and as directed by the ENGINEER.

#### 1.29 Pavement Cleanup

The CONTRACTOR shall clean daily all dirt, gravel, construction debris, and other foreign material resulting from its operations from all paved areas.

#### 1.30 Vehicle Parking

The vehicles of the CONTRACTOR's and subcontractors' employees shall be parked in a location approved by the OWNER

#### 1.31 Record Drawings

CONTRACTOR shall maintain at the site one set of specifications, full size drawings, shop drawings, equipment drawings and supplemental drawings which shall be corrected as the work progresses to show all changes made. Drawings shall be available for inspection by the ENGINEER. Upon completion of the contract and prior to final payment, specifications and drawings shall be turned over to the ENGINEER.

#### 1.32 “Or Equal” Clause

- A. In order to establish a basis of quality, certain processes, types of machinery and equipment or kinds of material may be specified on the drawings or herein by designating a manufacturer’s name and referring to its brand or product designation. It is not the intent of the specifications to exclude other processes equipment or materials of a type and quality equal to those designated. Unless otherwise indicated in the contract documents, when a manufacturer’s name, brand or item designation is given, it shall be understood that the words “or equal” follow such name or designation, whether in fact they do so or not. If the CONTRACTOR desires to furnish items of equipment by manufacturers other than those specified, he shall secure the approval of the ENGINEER prior to placing a purchase order.
- B. No extras will be allowed for any changes required to adopt the substitute equipment. Therefore, the CONTRACTOR’s proposal for an alternate shall include all costs for any modifications to the drawings, such as structural and foundation changes, additional piping or changes in piping, electrical changes or any other modifications which may be necessary or required for approval and adoption of the proposed alternate equipment. Approval of alternate equipment by the ENGINEER before or after bidding does not guarantee or imply that the alternate equipment will fit the design without modifications.

#### 1.33 Surveys

Based upon the information provided by the Contract Documents, the CONTRACTOR shall develop and make all detail surveys necessary for layout and construction, including exact component location, working points, lines and elevations. Prior to construction, the field layout shall be approved by the OWNER’s representative. The CONTRACTOR shall have the responsibility to preserve bench marks, reference points and stakes, and in the case of destruction thereof by the CONTRACTOR or resulting from its negligence, the CONTRACTOR shall be charged with the expense and damage resulting therefore and shall be responsible for any mistakes that may be caused by the unnecessary loss or disturbance of such bench marks, reference points and stakes.

#### 1.34 Work Hour Limitations

Work may occur between Monday and Friday during hours designated during the preconstruction meeting, and as restricted by the Mountain Home Highway District.



1.35 Dust Prevention

All unpaved streets, roads, detours, haul roads, or other areas where dust may be generated shall receive an approved dust-preventative treatment or be routinely watered to prevent dust. Applicable environmental regulations for dust prevention shall be strictly enforced.

1.36 Erosion and Sedimentation Control

Provide erosion and sediment control measures as specified in the contract documents or as required by the EPA.

1.37 Interferences and Obstructions

A. All costs resulting from any interferences and obstructions, or the replacement of such, whether or not herein specifically mentioned, shall be included and absorbed in the unit prices of the CONTRACTOR's bid.

1.38 Noise Limitations

CONTRACTOR shall comply with all applicable ordinances and State regulations.

1.39 Storage and Protection of Equipment and Materials

A. Materials and equipment stored overnight shall be placed nearby on the job site. Unusable materials (i.e. rejected or damaged material, old concrete chunks, metal scraps, etc.) shall be expeditiously removed from the job site. Provide appropriate barricades, signs, and traffic control devices in like-new condition where required by the OWNER and as necessary to protect the public from any hazards associated with the storage of materials and equipment used for this project.

B. Contractor is solely responsible for the security of stored equipment and materials.

C. No equipment and/or materials shall be stored outside the immediate work area on public right-of-ways. The "immediate work area" is the area where work is taking place or will be taking place within one calendar day. The CONTRACTOR shall immediately move stored material or equipment which causes a nuisance or creates complaints.

1.40 Competent Person Designation

CONTRACTOR shall designate a qualified and experienced "competent person" at the site whose duties and responsibilities shall include enforcement of Idaho – OSHA regulations regarding excavations, the prevention of accidents, and the maintenance the supervision of construction site safety precautions and programs.

- 1.41 Emergency Maintenance Supervisor – NOT USED
- 1.42 Use of Explosives
  - A. Use of explosives is not allowed
- 1.43 Contract Modification Procedures
  - A. Refer to Construction Contract
- 1.44 Payment Procedures – NOT USED
- 1.45 Conditional Use Permit – NOT USED
- 1.46 Reservoir Supplier – NOT USED
- 1.47 Painting Contractor – NOT USED
- 1.48 Project Information Signs – The CONTRACTOR shall provide project information signs if required by the Mountain Home Highway District

**END OF SECTION**

**SECTION 01100**  
**GENERAL REQUIREMENTS**

**PART 1      GENERAL**

1.1      Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2      Summary

- A. This section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Inspection procedures
2. Warranties
3. Instruction of OWNER's personnel
4. Final cleaning

- B. Related Sections include the following:

1. Division 1 Section 01100 General Requirements.

1.3      Substantial Completion

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.

1. CONTRACTOR is to prepare a list of items to be completed and corrected (punch list), the value of items on the list, and the reason why the Work is not complete.
2. Advise OWNER of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents
4. Obtain and submit releases permitting OWNER unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
5. Prepare and submit Project Record Documents, operation and maintenance manuals, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by OWNER. Label with manufacturer's name and model number where applicable.
7. Terminate and remove temporary facilities from Project site, along with mockups, constructions tools, and similar elements.
8. Complete final cleaning requirements.

9. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- 
- B. Inspection: submit a written request for inspection for Substantial Completion. On receipt of request, ENGINEER will either proceed with inspection or notify CONTRACTOR of unfulfilled requirements. ENGINEER will prepare the Certificate of Substantial Completion after inspection or will notify CONTRACTOR of items, either on CONTRACTOR's list or additional items identified by ENGINEER, that must be completed or corrected before certificate will be issued. \
    1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
    2. Results of completed inspection will form the basis of requirements for Final Completion.
- 
- 1.4 Final Completion
- A. Preliminary Procedures: before requesting final inspection for determining date of Final Completion, complete the following:
    1. Submit certified copy of ENGINEER's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by ENGINEER. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
    2. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  
  - B. Inspection: submit a written request for final inspection for acceptance. On receipt of request, ENGINEER will either proceed with inspection or notify CONTRACTOR of unfulfilled requirements.
    1. Reinspection: request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION**

- 3 Final Cleaning
  - A. General: provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
  - a. Clean project site, yard, and grounds in areas disturbed by construction activities, including areas of rubbish, waste material, litter, and other foreign substances.
  - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
  - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
  - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
  - e. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
  
- B. Comply with Safety standards of cleaning. Do not burn waste materials. Do not bury debris or excess materials on OWNER's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION



**IDAHO NATIONAL GUARD**  
CONSTRUCTION AND FACILITIES MANAGEMENT OFFICE  
4715 South Byrd Street, Building 518  
Boise, Idaho 83705-8095



April, 28 2017

Mrs. Penny Meyers  
District Administrator  
Mountain Home Highway District  
P.O. Box 756  
1208 NW Mashburn  
Mountain Home, Idaho 83647

Dear Mrs. Meyers:

Per our discussion on the proposed tank crossing on Simco road the following information is provided in addition to the previously sent application:

The basic plan for use and crossing of vehicles over Simco road is to use soldiers as flaggers. Signs will be placed on the road to indicate "Flaggers ahead, use caution." When there is military movement all Simco will be stopped. As soon as the vehicle has passed Simco traffic will be allowed to continue. Once Simco traffic is clear, military traffic will be allowed to cross again. Our intent is to impede Simco traffic as little as possible.

The anticipated use of the site is:

Frequency: 24 instances of Battalion-level crossings. They go in, train, and come out. No back and forth.

Size: Battalion sized element. (Approximately 100 vehicles total; approx. 45 tracked vehicles, approx. 55 wheeled vehicles).

Time: Approximately 2 hours per crossing iteration, mainly between 10:00 pm and 5:00 am.

Our proposed construction plan and timeline is as follows:

The point of contact for this issue is the undersigned at (208) 272-3730 or lee.d.rubel.mil@mail.mil.

LEE D. RUBEL  
Lieutenant Colonel, U.S. Army  
Deputy Construction & Facilities  
Management Officer



**IDAHO NATIONAL GUARD**  
CONSTRUCTION AND FACILITIES MANAGEMENT OFFICE  
4715 South Byrd Street, Building 518  
Boise, Idaho 83705-8095



April, 28 2017

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Mountain Home Highway District  
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Size: Battalion sized element. (Approximately 100 vehicles total; approx. 45 tracked vehicles, approx. 55 wheeled vehicles).

Time: Approximately 2 hours per crossing iteration, mainly between 10:00 pm and 5:00 am.

Our proposed construction plan and timeline is as follows:

Forty-five day construction period.

Temporary by-pass road around construction site.

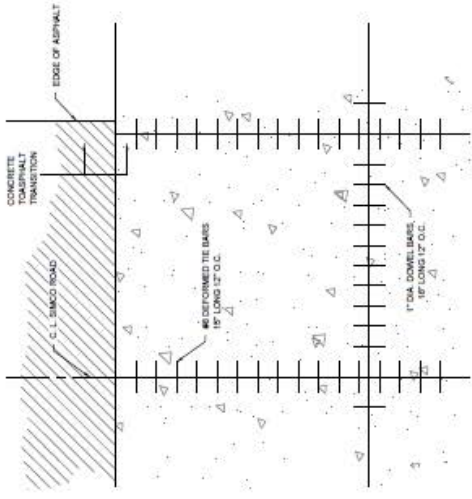
Construction to begin around July 1, 2017 if approved.

The point of contact for this issue is the undersigned at (208) 272-3730 or lee.d.rubel.mil@mail.mil.

LEE D. RUBEL  
Lieutenant Colonel, U.S. Army  
Deputy Construction & Facilities  
Management Officer

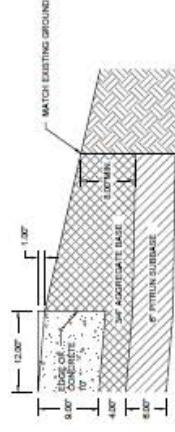


**SITE MAP**  
(1/8" = 1'-0" FULL SIZE)

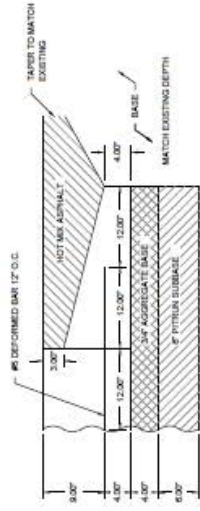


NOTE: SEE (SP)VC 3D-714 ACHD SUPPLEMENTAL

**C5** TYPICAL JOINT DETAILS



**B5** SLAB EDGE DETAIL



**A5** CONCRETE TO ASPHALT TRANSITION



# Mountain Home Highway District

P.O. Box 756 – 1208 NW Mashburn  
Mountain Home, Idaho 83647  
Office 208-587-3211 Fax 208-587-7129

(APPLICATION VOID AFTER 30 DAYS)

## APPLICATION AND PERMIT TO USE RIGHT OF WAY APPROACHES AND OTHER

COPY OF PERMIT MUST BE PRESENT AT WORK SITE DURING CONSTRUCTION

Public Road Surface Type: (Dirt) (Gravel) (Pavement)  
Start Date: June 5, 2017

Est. Completion Date: August 1, 2017

Road Name: Simco Road

Location: 15.8 Miles south of I-84 on Simco Rd.

Sight Distance:

**NOTICE:**  
This permit shall not be valid for excavation until, or unless, the provisions of Idaho Code Title 55 Chapter 22 have been complied with. PRIOR TO EXCAVATION, CALL DIGLINE 1-800-342-1585

Posted Speed: 55 MPH

Quantity: \_\_\_\_\_ Width: 50' \_\_\_\_\_ Surface Type: Concrete \_\_\_\_\_

Estimated Volume: 20 vehicles \_\_\_\_\_ (Vehicle Count)

Military training \_\_\_\_\_ Idaho Army National Guard \_\_\_\_\_  
Type-Residence, Business, Field ETC. \_\_\_\_\_ Type of Business \_\_\_\_\_

Explain: Construct a concrete tank crossing across Simco Road to allow for vehicle travel W-E and E-W.

ATTACH SKETCH OF PROPOSED WORK AND TRAFFIC CONTROL PLANS:

See page 2 for General Provisions.

I certify that I am the owner or authorized representative of the proposed property to be served and agree to do the work requested hereon in accordance with the General Requirements

Idaho National Guard \_\_\_\_\_  
Name of Permittee \_\_\_\_\_  
208-272-3345 \_\_\_\_\_  
Phone Number \_\_\_\_\_

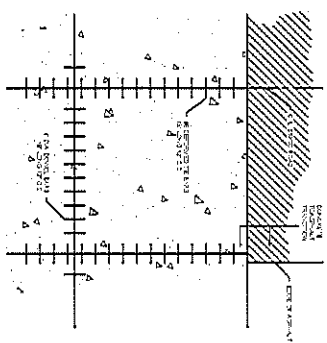
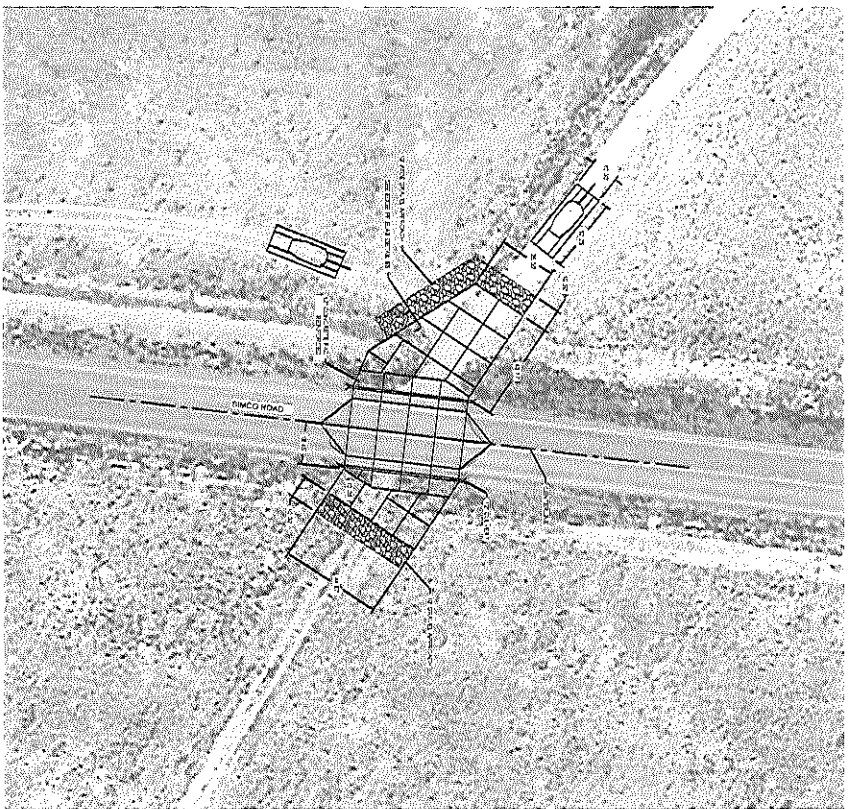
4715 S Byrd St, Boise, ID 83705 \_\_\_\_\_  
Address of Permittee \_\_\_\_\_  
RUBELLE.DAVID.1064177920 \_\_\_\_\_  
Signature of Authorized Representative \_\_\_\_\_  
27 April 2017 \_\_\_\_\_  
Date \_\_\_\_\_

Subject to all terms, conditions, and provisions shown on this form or attachments, permission is hereby granted to the above applicant to perform the work described above.

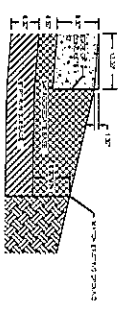
FOR LOCAL HIGHWAY JURISDICTION USE	
TEMPORARY PERMIT	FINAL PERMIT
Tentative approval subject to inspection of installation	Approved Date: _____ Rejected Date: _____
Date: <u>6-1-17</u>	Corrections Required: _____
By: <u>Randy Meyer</u> MHHD Authorized Representative	Approved By: _____ MHHD Authorized Representative
	A5 Revised 2014



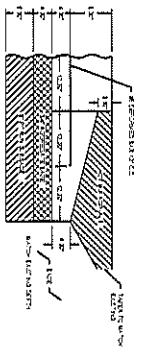
**SITE MAP**



**(C5) TYPICAL JOINT DETAILS**



**(B5) SLAB EDGE DETAIL**



**(A5) CONCRETE TO ASPHALT TRANSITION**

CS-101

1:25 - 1:50  
 4.0000  
 1.0000  
 1.0000  
 1.0000

DATE	DESCRIPTION

SITE MAP  
 SMCO ROAD TANK CROSSING  
 SMCO ROAD  
 ELMORE COUNTY MOUNTAIN HOME, IDAHO  
 T O ENGINEERING

PROJECT NO. 17-462017  
 SHEET NO. 01 OF 01



# Mountain Home Highway District

P.O. Box 756 – 1208 NW Mashburn  
Mountain Home, Idaho 83647  
Office 208-587-3211 Fax 208-587-7129

**(APPLICATION VOID AFTER 30 DAYS)**

## APPLICATION AND PERMIT TO USE RIGHT OF WAY APPROACHES AND OTHER

COPY OF PERMIT MUST BE PRESENT AT WORK SITE DURING CONSTRUCTION

Public Road Surface Type: (Dirt) (Gravel) (Pavement)

Start Date: June 5, 2017

Est. Completion Date: August 1, 2017

Road Name: Simco Road

Location: 15.8 Miles south of I-84 on Simco Rd.

Sight Distance: \_\_\_\_\_

**NOTICE:**  
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**PRIOR TO EXCAVATION, CALL DIGLINE**  
1-800-342-1585

Posted Speed: 55 MPH

Quantity: \_\_\_\_\_ Width: 50' Surface Type: Concrete

Estimated Volume: 20 vehicles (Vehicle Count)

Military training Idaho Army National Guard  
Type-Residence, Business, Field ETC. Type of Business

Explain: Construct a concrete tank crossing across Simco Road to allow for vehicle travel W-E and E-W.

ATTACH SKETCH OF PROPOSED WORK AND TRAFFIC CONTROL PLANS:

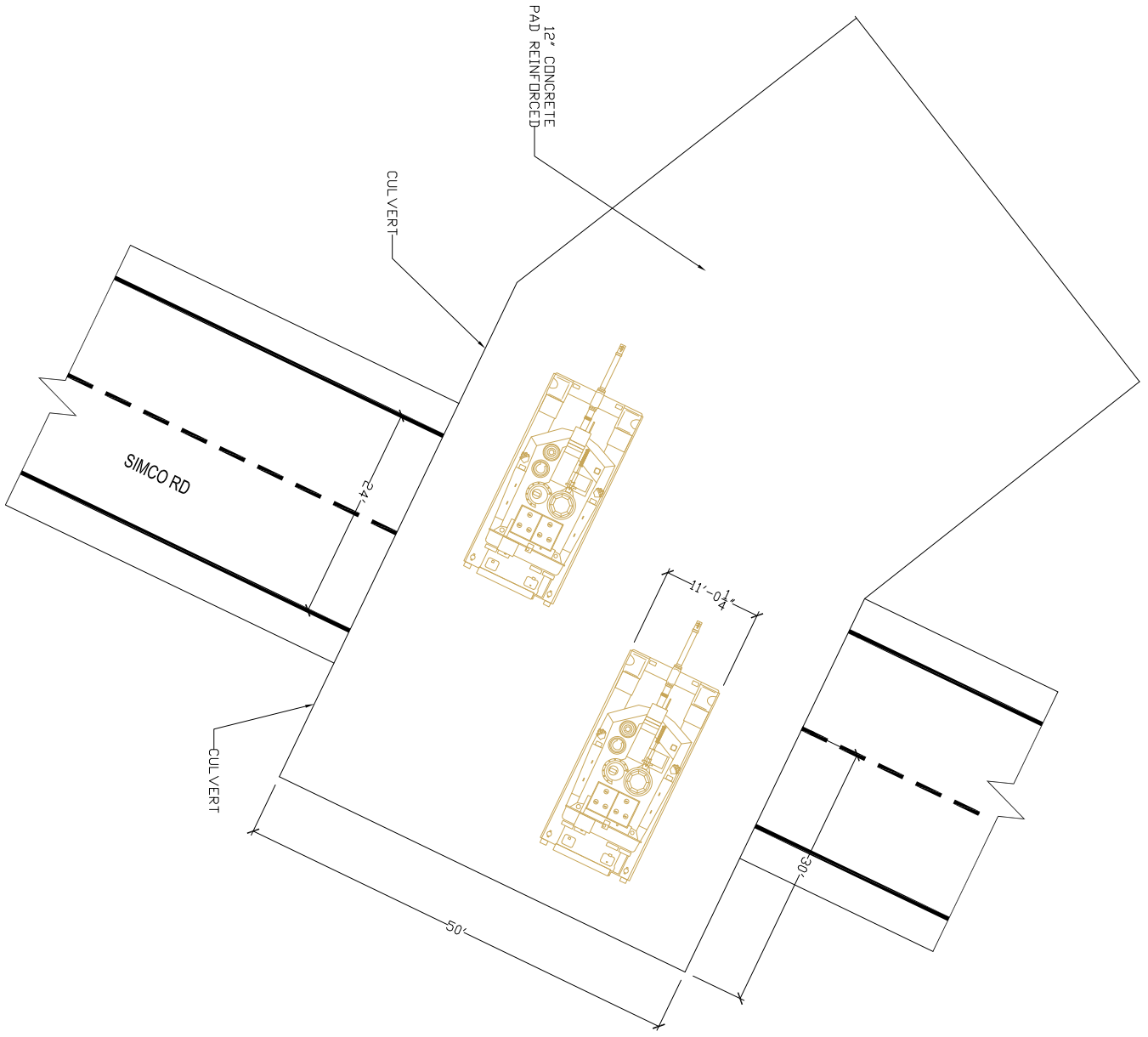
See page 2 for General Provisions.

I certify that I am the owner or authorized representative of the proposed property to be served and agree to do the work requested hereon in accordance with the General Requirements

Idaho National Guard 4715 S Byrd St, Boise, ID 83705  
Name of Permittee Address of Permittee  
208-272-3345 27 April 2017  
Phone Number Signature of Authorized Representative Date

Subject to all terms, conditions, and provisions shown on this form or attachments, permission is hereby granted to the above applicant to perform the work described above.

FOR LOCAL HIGHWAY JURISDICTION USE	
TEMPORARY PERMIT	FINAL PERMIT
Tentative approval subject to inspection of installation	Approved Date: _____ Rejected Date: _____
Date: _____	Corrections Required: _____
By: _____ MHHD Authorized Representative	Approved By: _____ MHHD Authorized Representative
A5	Revised 2014



# Orchard Combat Training Center Simco Road Proposed Tank Crossing

- Site: 15.8 miles South of the south I-84 off ramp
- Between mile markers 16 and 17
- Existing side roads on both West and East



Aerial View



North of site looking South (MP 16)



South of site looking North (MP 17)



Site looking North



Site



Looking South



Site looking South



Site looking East



West side road



Site looking West



East side road



Total site looking West



West adjacent side road looking South



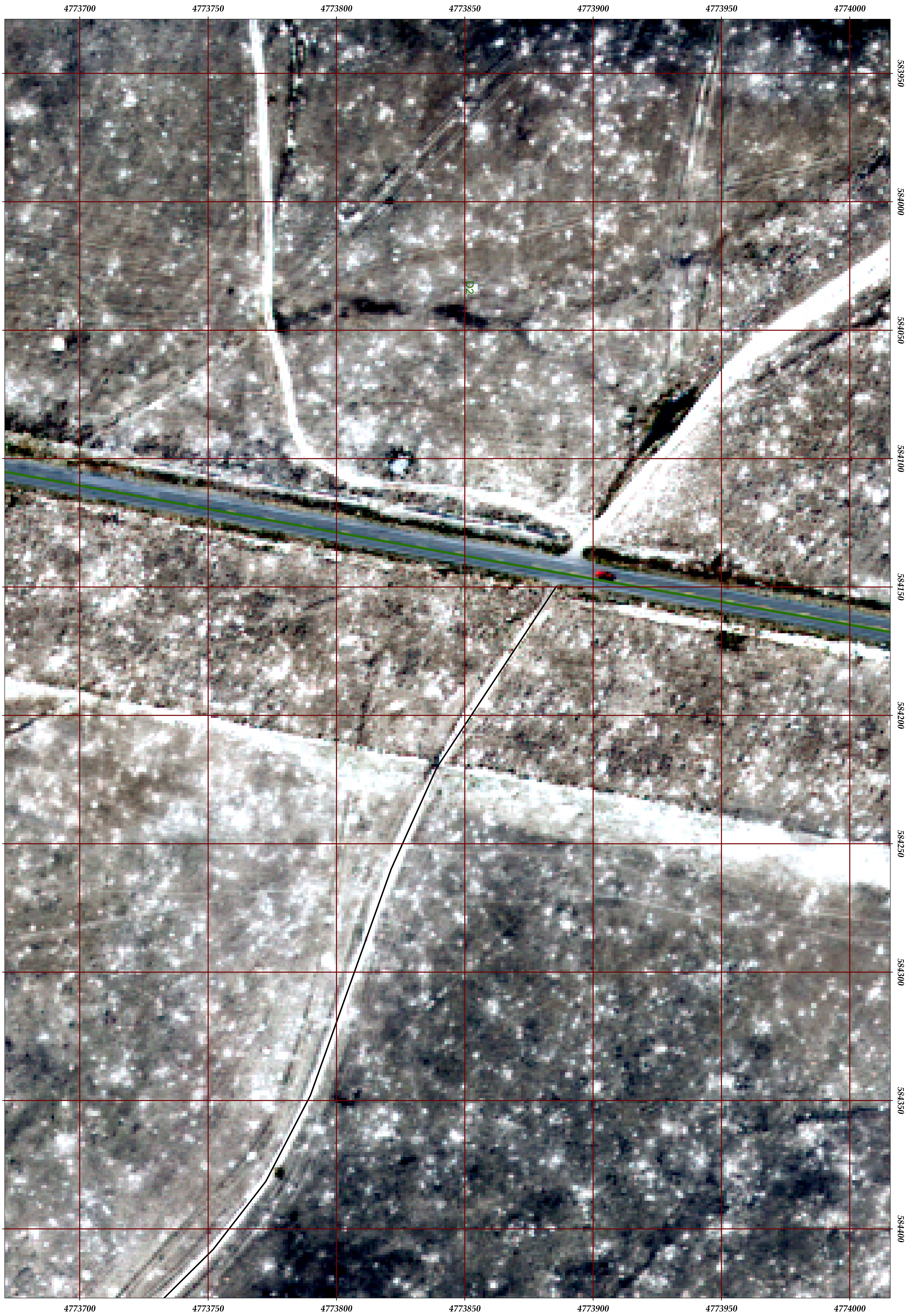
Existing OCTC perimeter markings



Site looking South

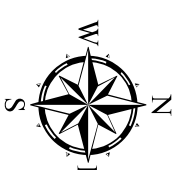
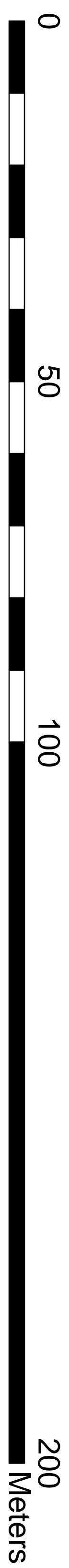


*Proposed Land Exchange - OCTC Simco Crossing*



**Legend**

- State Land Access Road
- State/Use Now
- OCTC Area of Operations After Swap



UTM Zone 11 North Meters  
North American Datum 1983 / WGS84  
GIS Systems, Environmental Management Office, IDARNG  
18 April 2017 (90015\_StateLandAsstCrossing)



**Mountain Home Highway District**

P.O. Box 756 - 1208 NW Mashburn  
Mountain Home, Idaho 83647  
Office 208-587-3211 Fax 208-587-7129

(APPLICATION VOID AFTER ~~30~~ <sup>90 Days</sup> DAYS)

*Randy Meyer*  
*MHAD*

**APPLICATION AND PERMIT TO USE RIGHT OF WAY  
APPROACHES AND OTHER**

COPY OF PERMIT MUST BE PRESENT AT WORK SITE DURING CONSTRUCTION

Public Road Surface Type: (Dirt) (Gravel) (Pavement)

Start Date: June 5, 2017

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Road Name: Simco Road

Location: 15.8 Miles south of I-84 on Simco Rd.

Sight Distance: \_\_\_\_\_

**NOTICE:**  
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Posted Speed: 55 MPH

Quantity: \_\_\_\_\_ Width: 50' Surface Type: Concrete

Estimated Volume: 20 vehicles (Vehicle Count)

Military training  
Type-Residence, Business, Field ETC.

Idaho Army National Guard  
Type of Business

Explain: Construct a concrete tank crossing across Simco Road to allow for vehicle travel W-E and E-W.

ATTACH SKETCH OF PROPOSED WORK AND TRAFFIC CONTROL PLANS:

See page 2 for General Provisions.

I certify that I am the owner or authorized representative of the proposed property to be served and agree to do the work requested hereon in accordance with the General Requirements

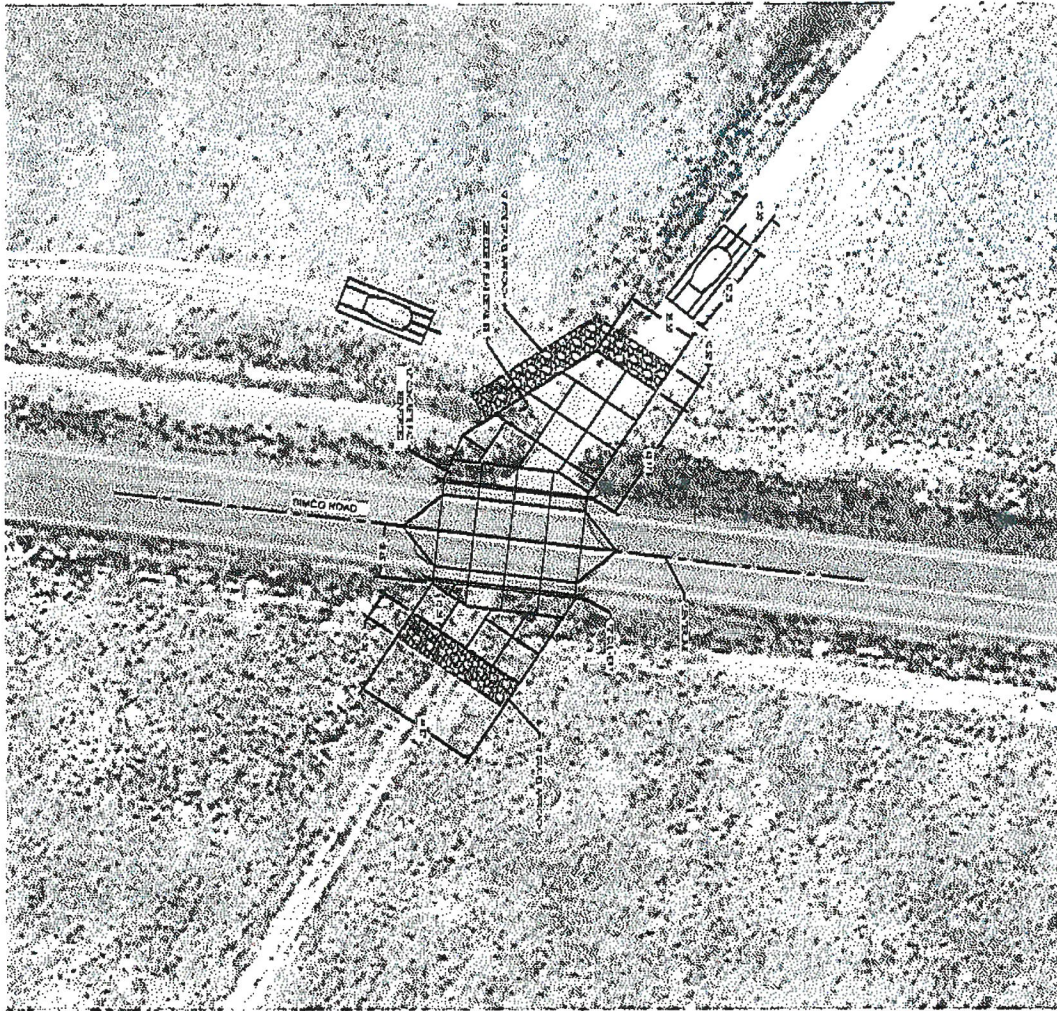
Idaho National Guard  
Name of Permittee  
208-272-3345  
Phone Number

4715 S Byrd St, Boise, ID 83705  
Address of Permittee  
RUBELLE.DAVID.1064177920  
Signature of Authorized Representative  
27 April 2017  
Date

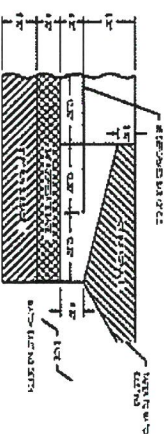
Subject to all terms, conditions, and provisions shown on this form or attachments, permission is hereby granted to the above applicant to perform the work described above.

FOR LOCAL HIGHWAY JURISDICTION USE	
TEMPORARY PERMIT	FINAL PERMIT
Tentative approval subject to inspection of installation	Approved Date: _____ Rejected Date: _____
Date: <u>6-1-17</u>	Corrections Required: _____
By: <u>Randy Meyer</u> MHHD Authorized Representative	Approved By: _____ MHHD Authorized Representative
	A5 Revised 2014

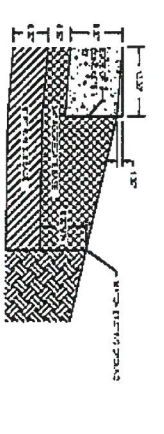
**SITE MAP**



**A5 CONCRETE TO ASPHALT TRANSITION**

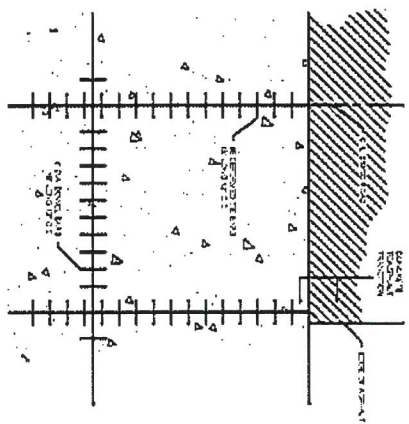


**B5 SLAB EDGE DETAIL**



**C5 TYPICAL JOINT DETAILS**

NOTE: SEE 85 FOR SOUTH ADOB SURFING DETAIL



CS-101	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"	1/2" x 1/2"
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**SITE MAP**  
 EMCO ROAD TANK CROSSING  
 EMCO ROAD  
 ELMORE COUNTY MOUNTAIN HOME, IDAHO  
 T O ENGINEERING

**ABCO**  
 ENGINEERING

8-27-11 11:27 AM  
 11/27/11 11:27 AM  
 11/27/11 11:27 AM



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Idaho Fish and Wildlife Office  
1387 S. Vinnell Way, Suite 378  
Boise, Idaho 83709  
www.fws.gov/Idaho



In Reply Refer To:  
FWS/IR9/ES/IFWO/2021-I-1984

September 28, 2021

### Memorandum

To: Field Manager, Four Rivers Field Office, Bureau of Land Management, Boise, Idaho

From: State Supervisor, Idaho Fish and Wildlife Office, Boise, Idaho

Subject: IDARNG Simco East Training Expansion Project – Elmore, Idaho – Concurrence

This memorandum responds to Bureau of Land Management's (BLM) request for the U.S. Fish and Wildlife Service's (Service) concurrence on effects of the subject action to species and habitats listed under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.; [Act]). BLM's request dated September 1, 2021, and received by the Service on the same day, included a biological assessment entitled *Biological Assessment of the Effects of the Idaho Army National Guard Proposed Simco Training Area (Assessment)* dated August 3, 2021. Information contained in the Assessment is incorporated here by reference.

Through the Assessment, BLM determined that the proposed action may affect, but is not likely to adversely affect *Lepidium papilliferum* (slickspot peppergrass). The Service concurs with BLM's determination for slickspot peppergrass and presents our rationale below.

Further, BLM assessed the effects of their proposed action and made a not likely to adversely modify determination for slickspot peppergrass proposed critical habitat (pCH). BLM requested to conference on proposed critical habitat for slickspot peppergrass and requested Service concurrence with their determination. After reviewing the Assessment, we concur with your determination for slickspot peppergrass proposed critical habitat and present our rationale below.

### Proposed Action

BLM proposes issuance of a right-of-way (ROW) for military training activities to be conducted by the Idaho Army National Guard (IDARNG). The project area is east of Simco Road and south of Crater Rings near Mountain Home, Idaho (Assessment, p. 3). The project area is approximately 11,505 hectares (28,430 acres) and is located east of Simco Road in Elmore County, adjacent to the Orchard Combat Training Center (OCTC). The proposed action includes ROWs on 5,170 hectares (12,775 acres) of BLM land, ROWs on 225 hectares (556 acres) of

INTERIOR REGION 9  
COLUMBIA-PACIFIC NORTHWEST

IDAHO, MONTANA\*, OREGON\*, WASHINGTON  
\*PARTIAL

INTERIOR REGION 12  
PACIFIC ISLANDS

AMERICAN SAMOA, GUAM, HAWAII, NORTHERN  
MARIANA ISLANDS

Bureau of Reclamation lands, and a long-term lease on 6,110 hectares (15,098) of land administered by Idaho Department of Lands (IDL; Assessment, pp. 2 and 4). Training activities would be managed under BLM's 2008 Morley Nelson Snake River Birds of Prey National Conservation Area Resource Management Plan, BLM's 1985 Kuna Management Framework Plan, IDL's statewide management plan, IDARNG's 2021 Integrated Natural Resource Management Plan, and other regulatory and military requirements (Assessment, p. 1). The proposed action consists of two components: (1) construction related to infrastructure improvements and annual maintenance and (2) annual military maneuver training.

Proposed infrastructure and maintenance projects include road widening and improvement, fence removal, fence installation, irrigation system replacement, installation of fence crossings (i.e., cattle guards), and the construction of three staging areas (Assessment, p. 5 and p. 7, Figure 2-3). Infrastructure projects are expected to be initiated between fiscal year (FY) 22 and FY24. Completion of construction is dependent on the scope and size of the individual project element, as well as timing of available funding (Assessment, p. 6). Construction would result in disturbance to approximately 101 hectares (250 acres; Assessment p.6 and pp. 9-10, Table 2-1).

Military training proposed to be conducted within the Simco Training Area includes off-road maneuver training activities (e.g., tank operations), isolated engineering tasks (i.e., digging operations), and all associated support activities (Assessment, p. 8). Specifically, maneuver training activities generally involve force-on-force operations where teams of armored companies, comprised of 14 armored vehicles, maneuver along pre-determined training lanes. These vehicles typically travel approximately 1 kilometer (0.6 miles) apart and rarely in single file to increase tactical advantage. Maneuver training within the Simco Training Area would never exceed a capacity of more than eight armored companies in one calendar year, and it is expected that the average annual use would be far less (Assessment, p. 8).

There would be no live fire training operations within the proposed area. Units operating in the area could remain overnight on the proposed hardened assembly areas or dispersed bivouac sites to conduct multi-day training events. Annual training operations would generally occur from March through November but are normally limited from May through August based on self-imposed soil moisture limitations implemented by the IDARNG. Heavy maneuver training could occur anywhere throughout the proposed Simco Training Area except for approximately 825 hectares (2,038 acres) of off-limits areas (Assessment, Figure 2-3, p. 7). Support personnel, also present prior to and throughout maneuver training activities, typically travel in wheeled vehicles either off-road or along hardened roads and assembly areas, such as those proposed for construction (Assessment, p. 9).

In addition to maneuver training, engineering companies would be operating to assist with defensive training activities, including constructing vehicle fighting positions. Vehicle fighting positions or "dig sites" are engineered by digging a position into the soil to conceal the body of the tank. Dig sites typically are the width of a tank (approximately 3 meters; 10 feet) and up to 2-meters (6.5 feet) deep. Under the proposed action, dig site footprints cannot exceed more than 12 hectares (30 acres) cumulatively each year, specifically 4 hectares (10 acres) on BLM land and 8 hectares (20 acres) on IDL land (Assessment, p. 9). Use of the area for military training is

proposed to be initiated in FY22 and would be conducted annually thereafter (Assessment, p. 9). The proposed action is fully described in the Assessment (pp. 2-13).

Proposed conservation measures are intended to minimize effects to slickspot peppergrass and its proposed critical habitat (Assessment, pp. 10-13). The following measures include, but are limited to:

1. Noxious weeds will be mapped and removed before being allowed to establish and spread to nearby slickspot peppergrass habitat (Assessment, p. 11).
2. Proposed roads to be constructed will be limited to the improvement and widening of a pre-existing two-track, rather than a new road, to reduce loss of slickspot peppergrass pollinator habitat and invasive weed invasion (Assessment, p. 11).
3. All areas of temporary disturbance from construction activities and from military training will be restored on-site with land manager-approved vegetation; impacts from temporary disturbance are expected to last no more than two growing seasons (Assessment, p. 11).
4. Dead invasive annual plant material along the roads and fences directly adjacent to slickspot peppergrass Element Occurrences will be removed by mechanical reduction when permissible by the land management agency (Assessment, p. 11).
5. Wildland fire crews will be on-site during all military training activities on the proposed Simco Training Area; wildland fire fighting priorities are first to protect life and property and second to protect slickspot peppergrass Occupied Habitat. OCTC wildland fire-fighting crews would have the ability to provide initial response to any fire within the Simco Training Area, regardless of the cause of ignition and could respond outside of scheduled military training windows (Assessment, p. 12).
6. Off-limits areas, 825 hectares (2,039 acres), will be established within the Simco Training Area, prioritizing slickspot peppergrass and Wyoming big sagebrush communities, including all occurrences of slickspot peppergrass within the action area. Off-limits areas will be shown on all maps given to soldiers and will be posted on the ground (Assessment, p. 12).

## Species and Habitat Presence

### *Slickspot Peppergrass*

Occupied Habitat, which includes slickspot peppergrass Element Occurrences (EOs) and the Habitat Integrity Zone (HIZ), occurs within the action area (Assessment, p. 19; Figure 2-5). There is one defined EO (#2) and one undefined EO within the action area which, together, total just over one hectare (2.5 acres). Table 2-3 (Assessment, pp. 16-17) describes the size and condition rankings of EOs that occur within or directly adjacent to the action area and associated military training lands (i.e., OCTC). The largest EO (#27) in the area (2,352 hectares; 5,812 acres) occurs within the OCTC and has some of the highest recorded densities of slickspot peppergrass throughout its range. The undefined EO within the proposed training area is a single new observation made by surveyors during Stage 3 surveys in 2017 within the northeast portion of the action area. This observation has not been officially incorporated into the species database as an EO with an associated HIZ (Assessment, p. 16).

### *Proposed Critical Habitat for Slickspot Peppergrass*

Proposed Critical Habitat (pCH) occurs within the action area in association with EO 2 encompassing approximately 33 hectares (82 acres; Assessment, p. 19; Figure 2-5). Unoccupied slick spots in pCH are mostly inundated by nonnative plant species (Physical and Biological Feature 1 [PBF]). The pCH within the action area overlaps with some intact Wyoming big sagebrush habitat (PBF2), though most of the habitat has a nonnative, annual understory. Based on frequent site visits, the vegetation community present provides low diversity and density of flowering plants, including native and nonnative species, which is likely to result in poor spatial and temporal distribution of potential slickspot peppergrass pollinators (PBFs 3 and 4). In addition, the understory is dominated by nonnative, annual grasses (e.g., cheatgrass [*Bromus tectorum*]) which has been shown to increase density of Owyhee harvester ants (*Pogonomyrmex salinus*), a serious seed predator of slickspot peppergrass (Assessment, pp. 23-24).

### Potential Impacts and Effects from the Proposed Action

#### *Slickspot Peppergrass*

Proposed construction projects and military training activities would not occur within slickspot peppergrass EOs but would have some overlap with areas of the HIZ (Assessment, p. 26). A full analysis of effects to slickspot peppergrass is described in the Assessment (pp. 25-30).

The proposed action would result in impacts to approximately 120 hectares (297 acres) within the action area (62 hectares [153 acres] would be permanent and 58 hectares [143 acres] would be temporary). Permanent impacts would result in the conversion of vegetated surfaces (not slickspot peppergrass) to impervious, unvegetated surfaces. Temporary impacts would include the temporary removal of vegetation (not slickspot peppergrass) due to one-time construction or annual military training disturbances. Due to standard operating procedures for post-construction and post-military training rehabilitation, temporary impacts are anticipated to last no longer than one growing season (Assessment, p. 26).

The closest disturbance to a slickspot peppergrass occurrence (i.e., EO) would be heavy maneuver training with the potential to occur no less than 180 meters (590 feet) away and would be temporary in nature. Therefore, no direct effects to the species (e.g., damage to or loss of slickspot peppergrass plants) would occur (Assessment, p. 27). Outside of EOs, there would be 4 hectares (10 acres) of disturbance within the HIZ (2 permanent and 2 temporary). Approximately 2 hectares (5 acres) would be permanently disturbed within the HIZ associated with the road widening and improvement project, and an additional 2 hectares (5 acres) would be temporarily disturbed within the HIZ associated with road widening and improvement, irrigation system replacement, and annual military training (Assessment, p. 27; Table 2-6). The road would permanently remove non-slickspot peppergrass vegetation that occurs just outside the trail that exists there currently, resulting in the loss of approximately 1 hectare (2.5 acres) of Sandberg blue grass (*Poa secunda*), one half hectare (1.2 acres) of shrub with cheatgrass understory, and less than one half hectare (less than 1.2 acres) of nonnative, annual forbs (mustard species [*Brassicaceae* spp.] and Russian thistle [*Kali tragus*]). Temporary impacts would occur once at the time of construction and annually thereafter, associated with military training and per



conservation measures. Effects are not likely to last beyond one growing season due to post-construction and post-military training on-site restoration. Permanent loss of 2 hectares (5 acres) of habitat that may contain pollinators for slickspot peppergrass (i.e., HIZ) would cause local and long-term indirect effects to slickspot peppergrass by reducing the diversity and density of pollinators for nearby Occupied Habitat permanently. Reduced pollinator diversity and density could result in decreased fruit production and future plant propagation for nearby slickspot peppergrass populations. Slickspot peppergrass relies primarily on cross-pollination to reproduce and maintain genetic diversity, which requires availability of invertebrate pollinators. In general, slickspot peppergrass can be pollinated by a wide suite of invertebrates. The vegetation proposed to be permanently lost within the HIZ under the proposed action is primarily perennial grass with very little native or nonnative forb cover, making it unlikely to support potential slickspot peppergrass pollinators. The remaining 200 hectares (494 acres) of the HIZ that will remain without permanent impacts includes several large pockets of nonnative annual forbs that likely provide essential pollinator habitat for the adjacent slickspot peppergrass occurrence (undefined EO). Temporary impacts from construction and military training activities would cause similar local indirect effects to slickspot peppergrass but would be short-term in nature. Conservation measures require all temporary impacts to be restored on-site to a similar or greater value composition (i.e., nonnative to native) within one year of the impact, typically in the fall or following spring (Assessment, p. 28).

Overall, there will be a total disturbance of 4 hectares (10 acres) of habitat that may contain pollinators for slickspot peppergrass in the HIZ from construction projects and military training activities resulting in impacts to the species. Conservation measures, including but not limited to, annual species and habitat monitoring, off-limits areas around all EOs, application of the IDARNG INRMP (including an Integrated Wildland Fire Management Plan), and on-site rehabilitation of temporary impacts, would be implemented to reduce, avoid, or eliminate adverse impacts to the species to insignificant levels. The total loss of 2 hectares (5 acres) within the HIZ accounts for 0.4 percent of the HIZ within the action area. In addition, there is an abundance of annual mustards within and adjacent to the action area that could support potential pollinators for the species, and it is unlikely that pollinator populations overall would decrease measurably or in levels high enough to reasonably elicit a response from individual slickspot peppergrass plants. Therefore, the IDARNG Proposed Simco Training Area project may affect, but is not likely to adversely affect slickspot peppergrass (Assessment, p. 30).

#### *Proposed Critical Habitat for Slickspot Peppergrass*

The entirety of pCH within the action area is included in the proposed off-limits areas; therefore, no construction projects or military training activities would occur within pCH. Heavy maneuver training would be the closest disturbance under the proposed action and could occur no closer than 240 meters (787 feet) from the nearest pCH boundary (Assessment, p. 31).

There would be a net decrease of 10 kilometers (6.2 miles) of fencing within the action area. None of the fencing construction or removal would occur within pCH, resulting in no direct effect to any of the PBFs. Fencing can catch dried plant material (e.g., Russian thistle) and pose a significant wildland fire risk as a continuous linear fuel source across a comparably sparsely vegetated landscape. Under the proposed action, there would be an overall net decrease in

fencing potentially decreasing the overall wildland fire risk to Occupied Habitat within and adjacent to the action area, though not substantially (Assessment, p. 31). Fence construction, however, would have indirect, local impacts to pCH but would not measurably increase the overall wildland fire risk in comparison to the existing risk on the landscape. In addition, the IDARNG would gain first-response capabilities within the area to provide supplemental wildland fire-fighting assets during and outside of military training seasons. This would provide additional protections to pCH within the action area from fire, especially to intact Wyoming big sagebrush communities (PBF 2) and vegetation supporting potential slickspot peppergrass pollinators (PBFs 3 and 4; Assessment, p. 31).

The project may affect but is not likely to adversely affect pCH for slickspot peppergrass because fence removal and supplemental wildland firefighting assets may have a slight beneficial impact on slickspot peppergrass pCH, and fence construction would have immeasurable and insignificant effects to pCH through increased wildland fire risk (Assessment, p. 31).

### Concurrence

Based on the Service's review of the Assessment, we concur with BLM's determination that the action outlined in the Assessment and this memorandum, may affect, but is not likely to adversely affect slickspot peppergrass. This concurrence is based on project design features and conservation measures that reduce impacts of the proposed action to slickspot peppergrass to insignificant levels.

This concludes informal consultation. Further consultation pursuant to section 7(a)(2) of the Act is not required. Reinitiation of consultation on this action may be necessary if: (1) new information reveals effects of the action that may affect listed species or designated critical habitat in a manner or to an extent not considered in the assessment; (2) the action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in the analysis; or (3) a new species is listed or critical habitat designated that may be affected by the proposed action.

Further, based on the Service's review of the Assessment, we concur with the BLM's determination that the action outlined in the Assessment and this memo, is not likely to adversely modify proposed critical habitat for slickspot peppergrass. This concurrence is based on project design features and conservation measures that reduce impacts of the proposed action to proposed critical habitat for slickspot peppergrass to insignificant levels. Although the Act does not require conferencing on proposed species or critical habitat, the BLM assessed the effects of the proposed action to proposed critical habitat for slickspot peppergrass and requested a conference. Therefore, this letter shall serve as our conference concurrence that the proposed action is not likely to adversely modify proposed critical habitat for slickspot peppergrass. If the proposed critical habitat is designated under the Act during the term of this action and there have been no significant changes that could warrant reanalysis of effects to the proposed critical habitat for slickspot peppergrass, the BLM should contact the Service in writing to affirm the validity of this conference concurrence and request it be adopted as a standard concurrence to ensure continued coverage under the Act.

Thank you for your continued interest in the conservation of threatened and endangered species. If you have any questions regarding this consultation, please contact Chris Reign of this office at (208) 871-8791.

cc:  
IDARNG, Boise (Durant)





**IDAHO NATIONAL GUARD**  
**ENVIRONMENTAL MANAGEMENT OFFICE**  
**4715 S. BYRD ST., BLDG 518**  
**BOISE, IDAHO 83705-8095**



11 July, 2018

**RE: Effects consideration regarding a proposed heavy maneuver training area for the Idaho Army National Guard (IDARNG).**

**Proposed Action:**

The IDARNG is currently working with the Idaho Department of Lands (IDL) to establish a long-term lease (20 years) on approximately 14,300 acres directly east of the Orchard Combat Training Center (OCTC) (Map 1). The proposed location would be wholly within Elmore County Idaho. These lands would be used to conduct military maneuver training activities to meet DOD training requirements outlined in Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way.

Annual training operations would generally occur from March through November and would not exceed 20 mechanized or armor companies, approximately 6,400 soldiers and 880 tracked and wheeled vehicles (no more than 6-8 weeks per year). The type of military training activities conducted on the IDL lands would be the same as those currently conducted within the OCTC; however, the overall impacts would be dispersed over a larger area.

The proposed training area will not be used for any type of live fire operations. Force on force operations would only use blank fire and multiple integrated laser engagement system (MILES), or similar non-Live fire systems for training purposes. Units operating in the area would use defined battle positions and could remain overnight on established assembly areas or bivouac sites in order to conduct multi-day training events.

All military training activities conducted on IDL lands would comply with established standard operating protocols (SOP) and best management practices (BMP) outlined in IDARNG 350-12, DA pamphlet 385-63, and IDARNG pamphlet 100-1. In addition, these lands would be actively managed in coordination with IDL staff for fire suppression, natural resources, and cultural resources under Army Regulation (AR) 350-19, AR 200-1, and the IDARNG's Integrated Natural Resource Management Plan (INRMP), Integrated Cultural Resource Management Plan) ICRMP, and associated resource management documents currently used for the OCTC.

Some changes to existing infrastructure (Map 2), primarily fences, may be required for training purposes. The IDARNG will coordinate with the IDL and existing permittees to make these modifications as needed. The IDARNG understands that changes to existing infrastructure may require funding in excess of the lease agreement to reimburse the permittee for infrastructure that they developed.

In addition to a lease agreement, the IDARNG has also submitted a right-of-way (ROW) application to the Bureau of Land Management (BLM) and a road application to Elmore County to access the site from the OCTC via a connection across Simco Road (Map 2). The proposed BLM ROW would utilize three existing access lanes (two tracks) on BLM lands totaling 5.62 linear miles. The existing two tracks would be graded, widened, and reinforced with 3-inch minus road mix. The access road would also be engineered for runoff, and culverts would be located as needed to maintain hydrologic function of the area. The total construction area, road and drainage width, would be 30 feet wide, with a total affected area of roughly 32.7 acres on BLM lands.

The Elmore County road application is requesting the construction of a cement road crossing on Simco Road (Figure 1). The basic plan for use and crossing of vehicles over Simco road is to use soldiers as flaggers. Signs will be placed on the road to indicate “Flaggers ahead, use caution.” When there is public use of Simco Road all military crossing will be stopped. As soon as the non-military vehicle has passed Simco military traffic will be allowed to continue crossing. The intent is to impede Simco traffic as little as possible.

### **Existing Conditions and LEPA Site Clearances:**

The proposed project is in the Snake River Plain Major Land Resource Area (USDA, 2006), and is relatively flat with elevations ranging from 2998’ (914 m) to 3382’ (1031 m). The Western Snake River Plain is one of the driest and warmest areas of the northern Great Basin ecoregion. The average annual precipitation of the area ranges from 8-12” (20-30 cm), and an average annual temperature of 51° F (10.6° C; WRCC, 2017). The region has distinct wet and dry seasons, with the majority of the precipitation falling as snow and rain between October and May. June-August are typically hot and dry with daily high temperatures in the 90s (F), and monthly average precipitation of 0.5” or less (WRCC, 2017).

The associated vegetation community of the proposed project area is classified as Southern Xeric Shrubland and Steppe (IDFG 2005, as cited in Warner 2014a). Potential native plant communities, as determined by NRCS Ecological Site Descriptions, range from salt-desert shrublands on drier sites, to shrub-steppe communities with sagebrush or winterfat shrub cover and native grasses (NRCS web soil survey, accessed 11 August 2017). However, the invasion of exotic annual plants, and the frequent wildfires they fuel, has converted much of the sage-steppe vegetation in the proposed project area to exotic annual grassland dominated by cheatgrass (*Bromus tectorum*) (Map 3, Figure 2). Most of the project area has burned at least once since 1964, and some of the area has burned up to six times (Map 4).

The proposed project area is currently dominated by exotic vegetation (45.2%), which includes cheatgrass, annual Brassicaceae species, and Russian thistle (Table 1 and Map 3). The photo included as Figure 2 is representative of a typical exotic species-dominant vegetation community type within the proposed project area. Native grass, particularly Sandberg bluegrass, is present throughout the site in a moderate amount (18.8%). Sagebrush cover (2.74%) is relatively sparse throughout the eastern portion of the proposed project area with more dense stands occurring toward the northeastern edge (Map 3).

Table 1. Proposed IDL area for IDARNG heavy maneuver training direct and temporary impact to vegetation and other cover types. Values are based on 2016 RapidEye NIR imagery.

<b>Project Component</b>	<b>Cover Type</b>	<b>Cover Class</b>	<b>Sum of Acres</b>	<b>% of Component</b>	<b>% of Total</b>
IDL Parcels	Native Grasses	Native Grass	2695.47	0.1877	0.1873
	Introduced Forbs	Non-Native Species	2534.27	0.1765	0.1761
	Exotic Annuals	Non-Native Species	2288.44	0.1594	0.1590
	Bare Ground	Bare Ground	1918.68	0.1336	0.1333
	Winterfat	Native Shrub	1903.36	0.1326	0.1323
	Introduced Grass	Non-Native Species	1674.95	0.1166	0.1164
	Shadscale Saltbrush	Native Shrub	854.16	0.0595	0.0594
	Sagebrush	Native Shrub	394.85	0.0275	0.0274
	Agriculture	Agriculture	0.86	0.0001	0.0001
	Other	Other	50.92	0.0035	0.0035
	Rabbitbrush	Native Shrub	43.13	0.0030	0.0030
<b>Component Total</b>			<b>14359.08</b>	<b>1.0000</b>	<b>0.9977</b>
BLM ROW	Bare Ground	Bare Ground	16.50	0.5045	0.0011
	Agriculture	Agriculture	0.02	0.0007	0.0000
	Exotic Annuals	Non-Native Species	0.99	0.0303	0.0001
	Introduced Forbs	Non-Native Species	1.93	0.0590	0.0001
	Introduced Grass	Non-Native Species	0.90	0.0274	0.0001
	Native Grasses	Native Grass	2.28	0.0698	0.0002
	Other	Other	1.02	0.0311	0.0001
	Shadscale Saltbrush	Native shrub	2.69	0.0823	0.0002
	Winterfat	Native Shrub	6.37	0.1949	0.0004
<b>Component Total</b>			<b>32.70</b>	<b>1.0000</b>	<b>0.0023</b>
<b>Grand Total</b>			<b>14391.7807</b>	<b>--</b>	<b>1.0000</b>

The proposed project area was also surveyed for all federally listed species associated with the area (Table 2) by IDARNG environmental staff and a third party contractor (Ecosystem Sciences LLC). The only species potentially occurring within the area was *Lepidium papilliferum* (LEPA). Since the area had slickspots present, and was in close proximity to designated critical habitat (Map 5), all surveys were conducted to meet or exceed the BLM’s 2010 Slickspot Peppergrass Inventory and Clearance Standards (see attached report). All observers used for the surveys met Department of Interior standards, and all surveys were conducted between May 1st and July 1 from 2014 through the summer of 2017 (Ecos 2017). No active slickspots were observed during any site clearness and the general habitat in the area is in very poor condition.

Table 2. Federally listed species in Ada County.

Species	Common Name	Status	Effect/No effect
<b>Plants</b>			
<i>Lepidium papilliferum</i>	Slickspot peppergrass	Threatened	No Effect

Source: U.S. Fish and Wildlife Service at URL-<http://www.fws.gov/idaho/species/IdahoSpeciesList.pdf>.

Since the area is state lands owned by the IDL there are no requirements to protect federally listed plant species under the Endangered Species Act. However, the IDL is currently a signatory on the 2006 LEPA Candidate Conservation Agreement. Under this agreement the IDL has agreed to survey the area for any occupied LEPA populations and manage for the species. To date, the IDL has not observed any occupied slickspots within the project area (pers. comm. Ruth Luke 2017).

There are two recorded populations, with established proposed critical habitat directly adjacent to the northern boundary of the project area (Map 5). The western population is element occurrence (EO)-2. It is located in poor condition habitat with low recorded numbers (high of 117 individuals), and the species has not been observed on the site since 2008. However, it was identified as having a “fair estimated viability”; as such, is defined as a C-ranked EO (Kinter and Miller 2016). The population in the northeast corner (EO-21) is in similar condition and has the same rank (C). No plants have been observed within the area since 2004 (Kinter and Miller 2016). Based on the condition of the sites and historic trends in recorded LEPA, these sites are considered poor LEPA habitat. However, as outlined in the IDARNG’s 2013 Integrated Natural Resources Management Plan and LEPA Endangered Species Management Plan, the IDARNG will manage for the species in this area through: continued coordination with IDL and FWS; maneuver restrictions (1000 meters) from known occurrences; annual monitoring; and active habitat restoration within the IDL lands adjacent to the sites (to the extent authorized by the IDL).



The IDARNG has demonstrated professional expertise, ability to sustain research and monitoring programs, and a long-term, active commitment to the conservation of this species. Since 1991, no LEPA plants have been damaged or destroyed by military training, no LEPA habitat has been burned by military-caused fire or destroyed by military activity, and, as detailed in the IDARNG's 2013 INRMP, the IDARNG is committed to continuing this level of concern for the species in the future (Stout and Associates, 2004).

Based on the absence of the species from the training area, the condition and management actions identified for the historic Eos, and the historic success of the IDARNG in managing the species, we have determined that the proposed actions would have "No Effect" on LEPA or its associated habitat.

Charles Baun

Conservation Branch Manager

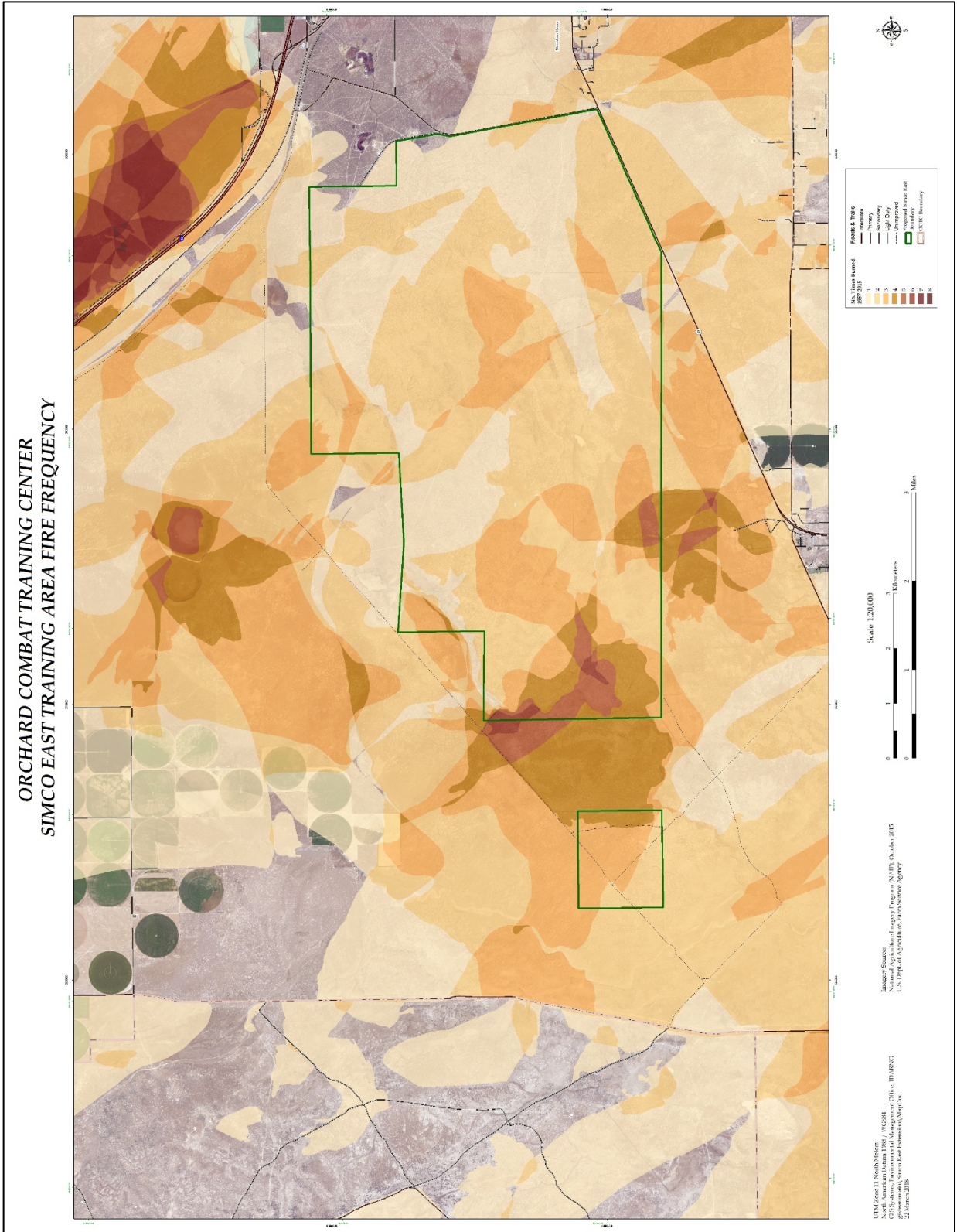
Environmental Management Office











Map 4. Proposed IDARNG Simco East, Fire Frequency Map.



**Attachment 1:**  
**U.S. Fish and Wildlife Service T&E List**  
**(State of Idaho)**





# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Idaho Fish And Wildlife Office  
1387 South Vinnell Way, Suite 368  
Boise, ID 83709-1657  
Phone: (208) 378-5243 Fax: (208) 378-5262

In Reply Refer To:

July 11, 2018

Consultation Code: 01EIFW00-2018-SLI-1565

Event Code: 01EIFW00-2018-E-03206

Project Name: Idaho Army National Guard Simco East Expansion

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (<https://www.fws.gov/migratorybirds/pdf/management/eagleconservationplanguidance.pdf>). Additionally, wind energy projects should follow the wind energy guidelines (<https://www.fws.gov/ecologica-services/energy-development/wind/html>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Idaho Fish And Wildlife Office**  
1387 South Vinnell Way, Suite 368  
Boise, ID 83709-1657  
(208) 378-5243

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## Project Summary

Consultation Code: 01EIFW00-2018-SLI-1565

Event Code: 01EIFW00-2018-E-03206

Project Name: Idaho Army National Guard Simco East Expansion

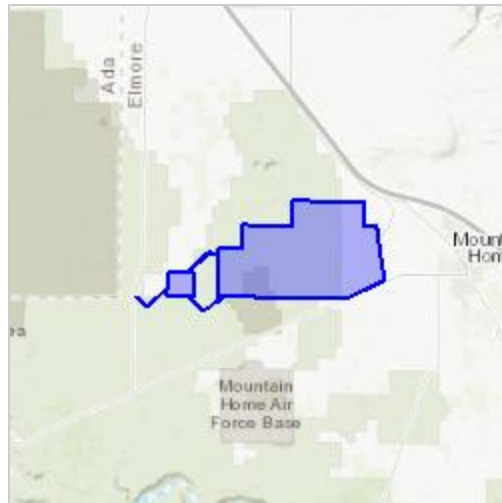
Project Type: MILITARY OPERATIONS / MANEUVERS

Project Description: The area analyzed includes the BLM ROW and IDL parcels proposed for heavy maneuver training.

Habitat is severely degraded. Boundaries meet LEPA PCH boundaries but do not overlap. No effects to LEPA are expected.

### Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/43.13762078763278N115.830478980666565W>



Counties: Elmore, ID

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## Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Flowering Plants

NAME	STATUS
Slickspot Peppergrass <i>Lepidium papilliferum</i> There is <b>proposed</b> critical habitat for this species. Your location overlaps the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/4027">https://ecos.fws.gov/ecp/species/4027</a>	Threatened

## Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Slickspot Peppergrass <i>Lepidium papilliferum</i> <a href="https://ecos.fws.gov/ecp/species/4027#crithab">https://ecos.fws.gov/ecp/species/4027#crithab</a>	Proposed

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# USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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# Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p>Bald Eagle <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p> <p><a href="https://ecos.fws.gov/ecp/species/1626">https://ecos.fws.gov/ecp/species/1626</a></p>	Breeds Dec 1 to Aug 31
<p>Brewer's Sparrow <i>Spizella breweri</i></p> <p>This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA</p> <p><a href="https://ecos.fws.gov/ecp/species/9291">https://ecos.fws.gov/ecp/species/9291</a></p>	Breeds May 15 to Aug 10

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NAME	BREEDING SEASON
<p>Clark's Grebe <i>Aechmophorus clarkii</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds Jan 1 to Dec 31
<p>Golden Eagle <i>Aquila chrysaetos</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/1680">https://ecos.fws.gov/ecp/species/1680</a></p>	Breeds Dec 1 to Aug 31
<p>Lesser Yellowlegs <i>Tringa flavipes</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a></p>	Breeds elsewhere
<p>Lewis's Woodpecker <i>Melanerpes lewis</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9408">https://ecos.fws.gov/ecp/species/9408</a></p>	Breeds Apr 20 to Sep 30
<p>Long-billed Curlew <i>Numenius americanus</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/5511">https://ecos.fws.gov/ecp/species/5511</a></p>	Breeds Apr 1 to Jul 31
<p>Marbled Godwit <i>Limosa fedoa</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a></p>	Breeds elsewhere
<p>Sage Thrasher <i>Oreoscoptes montanus</i>  This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  <a href="https://ecos.fws.gov/ecp/species/9433">https://ecos.fws.gov/ecp/species/9433</a></p>	Breeds Apr 15 to Aug 10
<p>Willet <i>Tringa semipalmata</i>  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.</p>	Breeds Apr 20 to Aug 5

## Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.



### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

### No Data (—)

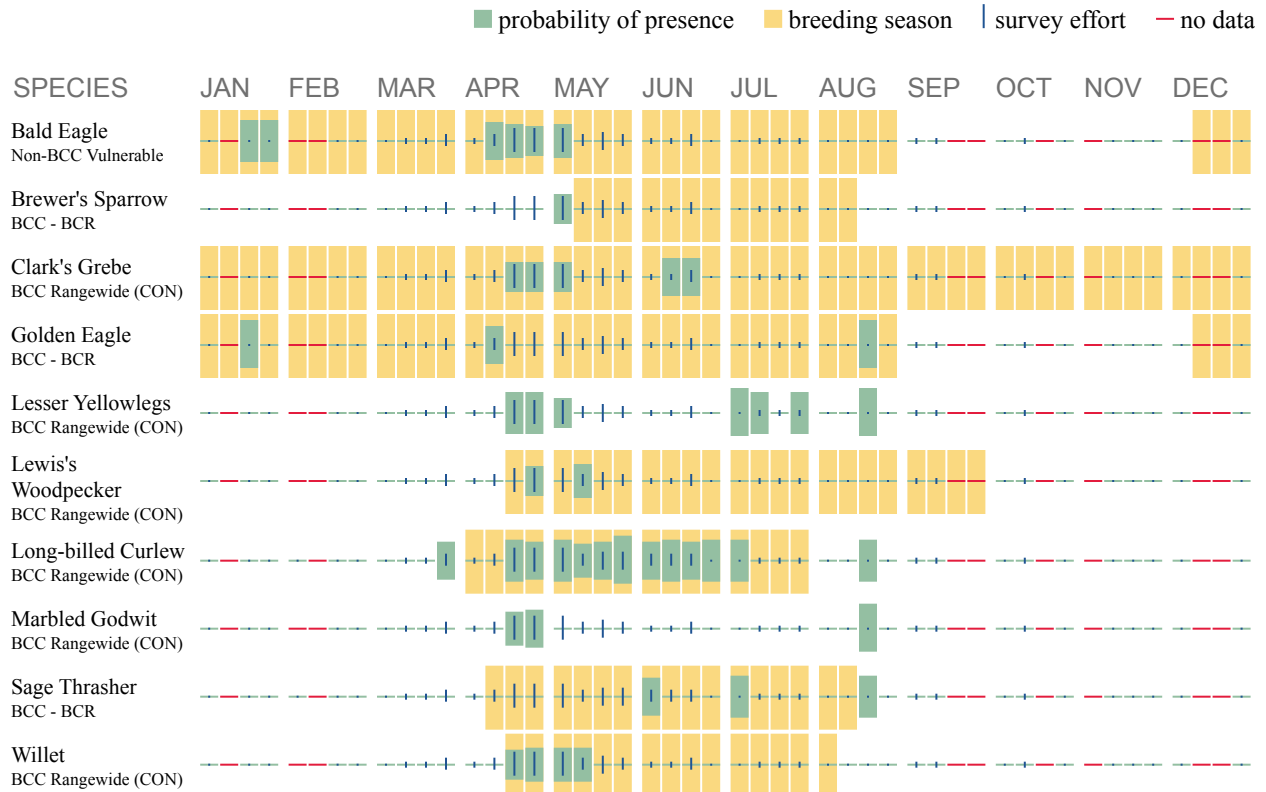
A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

## Migratory Birds FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or

[permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### **What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

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Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In

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contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

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# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

## FRESHWATER EMERGENT WETLAND

- [PEM1Ah](#)
- [PEM1Ax](#)
- [PEM1Ch](#)

## FRESHWATER POND

- [PUSC](#)
- [PUBFh](#)
- [PUSA](#)
- [PUSCx](#)

## RIVERINE

- [R4SBA](#)
  - [R4SBC](#)
-



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
BOISE REGULATORY OFFICE  
720 EAST PARK BOULEVARD, SUITE 245  
BOISE, IDAHO 83712-7757

February 05, 2021

Regulatory Division

SUBJECT: NWW-2018-00395, Simco East Training Area Access

Kenn Hardin  
Idaho Army National Guard  
4715 South Byrd Street  
Gowen Field, Bldg. 518  
Boise, Idaho 83705

Dear Mr. Hardin:

We have reviewed the information submitted to our office in your September 17, 2020 correspondence, and subsequent October 7, 2020 on-site meeting and field discussions, and we have determined that the subject project area contains waters of the United States (U.S.), however, the proposed project and stated training activities that are proposed to take place within the project area, would not involve an activity we regulate. The project area is located east of Simco Road and north of Airbase/Grand View Road, within Sections 2, 11 and 14 of Township 3 and 4 South, Range 4 and 5 East, near 43.134598° N latitude and -115.926791° W longitude, near Mountain Home, Elmore County, Idaho. Your request has been assigned File Number NWW-2018-00395.

The use of existing roads within the surveyed boundary area that includes operational plans to drive equipment through marked crossing locations and the use of temporary bridges and other types of retractable equipment to span the bed and banks of tributaries located within the training boundary area, would not involve the discharge of dredged and/or fill material below the ordinary high water mark of Canyon Creek and Squaw Creek, which are regulated under Section 404 of the Clean Water Act (U.S.C. 1344). Therefore, a Department of Army (DA) authorization is not required.

**Please be advised that discharges of dredged and/or fill material under our jurisdiction may include those associated with mechanized land-clearing involving vegetation removal with equipment such as front-end loaders, backhoes, or bulldozers with sheer blades, rakes, or discs, windrowing of vegetation, land leveling, or other soil disturbances in wetlands are activities which result in a discharge of dredged material that destroys or degrades a**

**waters of the U.S. An authorization may be required if you alter the method, scope, or location of your proposed project. Please contact us if you make changes to your project that would require the discharge of dredged or fill material below the ordinary high water mark of a waters of the U.S.**

### **AUTHORITY**

The DA exerts regulatory jurisdiction over Waters of the United States (U.S.), including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). Section 404 of the Clean Water Act requires a DA permit be obtained prior to discharging dredged or fill material into Waters of the U.S., which includes most perennial and intermittent rivers and streams, natural and man-made lakes and ponds, irrigation and drainage canals and ditches that are tributaries to other waters, and wetlands. Section 10 requires that a DA permit be obtained prior to building structures or conducting work in or affecting navigable Waters of the U.S.

### **SERVICE SURVEY**

We actively use feedback to improve our delivery and provide you with the best possible service. If you would like to provide feedback, please take our online survey<sup>1</sup>. If you have questions or if you would like a paper copy of the survey, please contact the Walla Walla District Regulatory. For more information about the Walla Walla District Regulatory program, you can visit us online<sup>2</sup>.

### **CONTACT INFORMATION**

If you have any questions or need additional information, you can contact me at 208-433-4469, by mail at the address in the letterhead, or email at: [megan.biljan@usace.army.mil](mailto:megan.biljan@usace.army.mil).

Encls  
Supplemental Maps

Sincerely,

Megan Biljan  
Project Manager, Regulatory Division

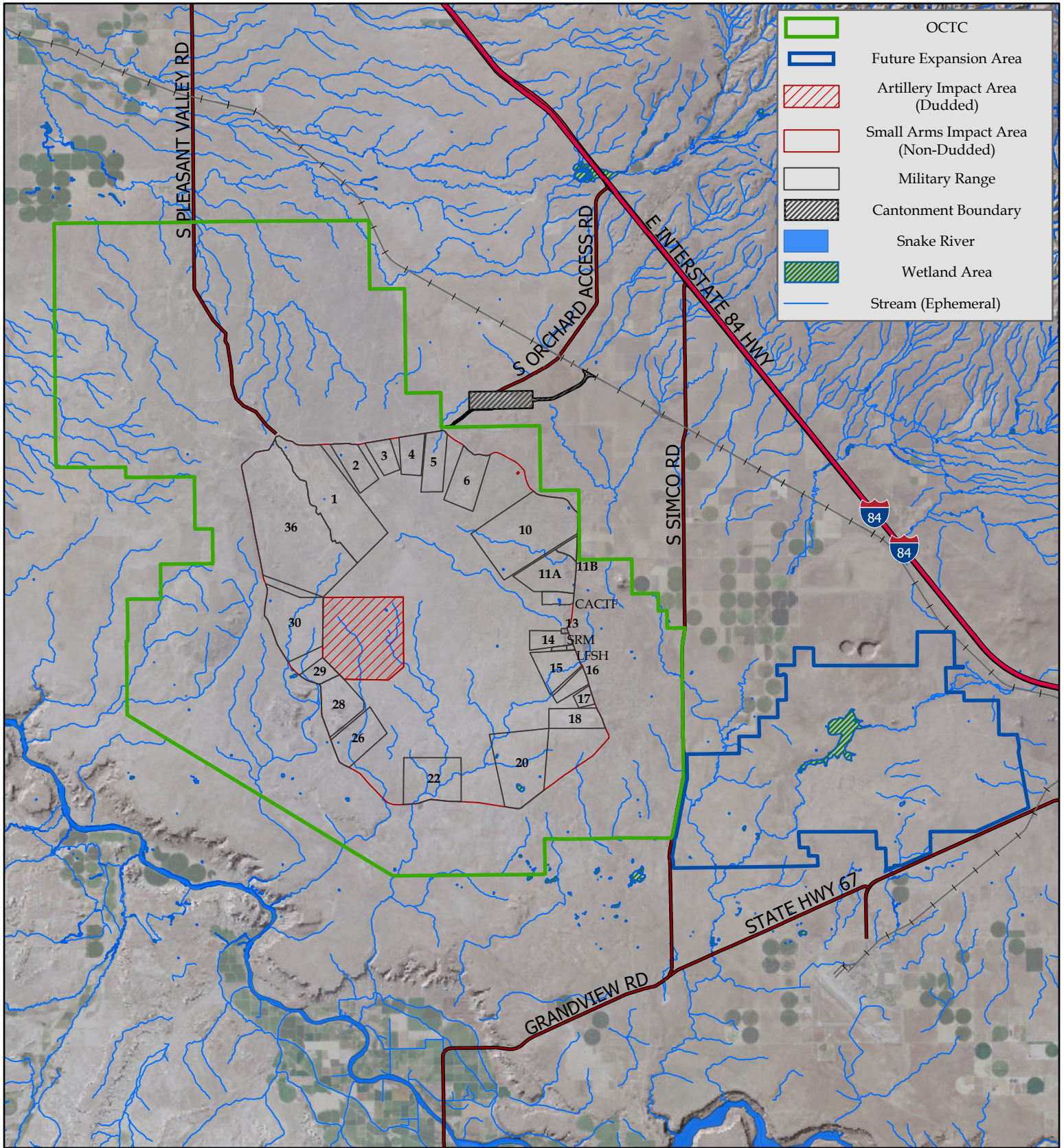
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<sup>1</sup> [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=regulatory\\_survey](http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey)

<sup>2</sup> <http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/>

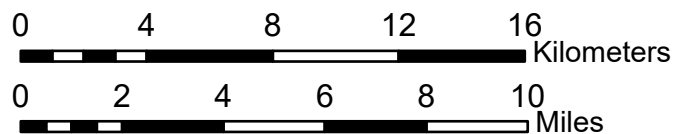


# Orchard Combat Training Center Hydrology



- OCTC
- Future Expansion Area
- Artillery Impact Area (Dudded)
- Small Arms Impact Area (Non-Dudded)
- Military Range
- Cantonment Boundary
- Snake River
- Wetland Area
- Stream (Ephemeral)

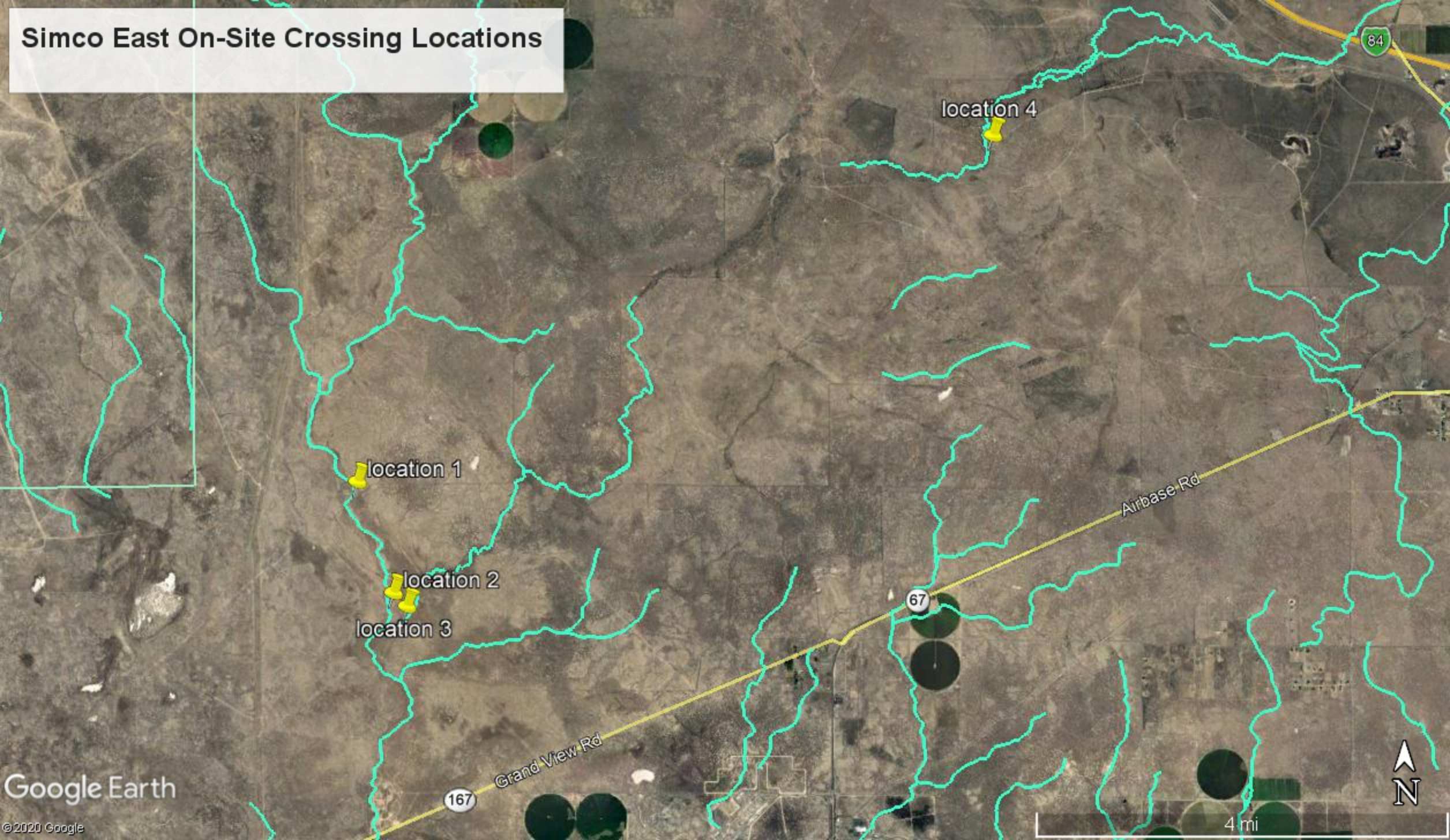
Scale 1:240,000



UTM Zone 11 North Meters  
 North American Datum 1983 / WGS84  
 GIS Systems, Environmental Management Office  
 IDARNG  
 October 2019



# Simco East On-Site Crossing Locations





REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
WALLA WALLA DISTRICT, CORPS OF ENGINEERS  
BOISE REGULATORY OFFICE  
720 EAST PARK BOULEVARD, SUITE 245  
BOISE, IDAHO 83712

July 18, 2018

Regulatory Division

SUBJECT: NWW-2018-00395, Idaho Army National Guard, Simco East Training Area Access

Mr. Charles Baun  
IDARNG Conservation Branch Manager  
4715 S. Byrd St.  
Gowen Field, BLDG. 518  
Boise, Idaho 83705

Dear Mr. Baun:

This is in response to your request for comments on your proposed Right of Way Acquisition for Access to the Simco East Training Area. Thank you for providing the Corps of Engineers (Corps) the opportunity to provide comment. According to information provided, the proposed project includes developing access to the Simco East Training Area.

The site is located within/near Section 27 of Township 3 South, Range 5 East, near latitude 43.140° N and longitude -115.853° W, in Elmore County, near Mountain Home, Idaho. Your project has been assigned Department of Army (DA) File # NWW-2018-00395, which should be referred to in all future correspondence.

**AUTHORITY**

The DA exerts regulatory jurisdiction over waters of the United States (U.S.), including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403). Section 404 of the Clean Water Act requires a DA permit be obtained prior to discharging dredged or fill material into Waters of the U.S., which includes most perennial and intermittent rivers and streams, natural and man-made lakes and ponds, irrigation and drainage canals and ditches that are tributaries to other waters, and wetlands.

Based on our review of the information you furnished and available to our office, we have preliminarily determined that as currently proposed your project may involve work requiring DA authorization. The project area may impact Squaw Creek, Canyon Creek, and potentially other unnamed drainages to Squaw Creek, which may be a water of the U.S., as well as uplands areas. Therefore, a DA permit may be required for the discharge of dredged and/or fill material in the waters.

We realize that a project at the scoping level is less detailed than a project that is being reviewed for a DA permit. Our scoping comments at this time are limited and are prepared to assist you in preparing a DA permit application. We recommend a site visit prior to the submission of a DA permit, to verify the jurisdictional status of potential resources, and determine the most appropriate permitting process.

Please contact me by telephone at (208) 433-4470, by mail at the address in the letterhead, or via email at [christen.m.griffith@usace.army.mil](mailto:christen.m.griffith@usace.army.mil) if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Christen Marve Griffith". The signature is written in a cursive, flowing style.

Christen Marve Griffith  
Project Manager, Regulatory Division

## Enhanced Cultural Protection Plan for Idaho National Guard Orchard Combat Training Center

1. In response to the damage to the buffer of cultural site 10-AA-762 and the damage to site 10-AA-286, the following policy changes will be implemented to protect cultural sites within the Orchard Combat Training Center (OCTC):
2. Currently there are 52 sites in consideration. The 52 sites meet criteria to be recommended as eligible on the National Register of Historic Places (NRHP).
3. Full site protection measures (as outlined below) will be implemented to protect all sites within OCTC that are recommended as eligible for listing on the NRHP.
  - a. All eligible sites, including a 50-meter buffer, will be included on the IDARNG training map as an Off Limits Area.
  - b. All eligible sites including a 50 meter buffer will be fenced with BLM approved wildlife friendly 3-strand barbed wire fences.
  - c. Concrete jersey or Dragons Tooth type barriers will be placed every 6 feet around the entire perimeter including the 50 meter buffer of eligible sites.
  - d. 2 1/2" metal poles measuring 10' above ground topped with Seibert Stakes will be placed every 25' around the 50 meter buffered area.
  - e. Highly visible signage will be placed every 25' around the 50meter buffered area.
4. The BLM is requiring the IDARNG to implement the plan in full. However, if full funding is not available this Fiscal Year, then full implementation of the plan may be allocated over multiple years. If full implementation of the plan is allocated over several years, then a tiered approach based off of higher probability of site impacts from military training will be implemented. Once all sites are mapped, the IDNG Cultural Resource Manager will work with the Tribes and the Bureau of Land Management (BLM) to categorize all sites into one of three protection risk categories: low, medium, and high.
  - a. Low risk sites are within the Impact Area (controlled public access) or in areas with minimal training activities, public use, and limited grazing activities. These sites will not be signed or fenced, i.e. continued passive management.
  - b. Medium risk sites are in areas with moderate public use, moderate grazing activities, or moderate training intensity. These areas will be signed only, no fence.

- c. High risk sites are in areas with high levels of public use, activities, or heavy training activity. These sites will be fenced and signed.
5. Per the IDARNG Integrated Cultural Resources Management Plan (ICRMP) Tribes can coordinate with the Idaho National Guard (IDNG) Tribal Liaison to access cultural resources throughout the OCTC. Access will be coordinated with OCTC Range Control to ensure safety measures are in place during site visits.
6. In addition to fencing, physical barriers, visible barriers, and signage, the following actions will be taken by the IDARNG:
  - a. All units training in the OCTC will receive an improved environmental sustainment brief that highlights cultural sites and their importance within the OCTC. The IDNG Adjutant General will provide command guidance within the brief to emphasize the importance of protecting sensitive sites within the training area.
  - b. All Training Units will be directed to purge outdated maps and ensure they are using current maps displaying all Off Limits Areas. Units training with digital navigation systems will be provided coordinates for all Off Limits Areas to be displayed in their digital navigation systems.
  - c. All training units' Environmental Worksheets and overlays of Off Limits Areas in unit training plans will continue to be forwarded to the state environmental office for validation prior to approval of OCTC unit training plans. OCTC Range Control will ensure units adhere to approved training plans during training exercises with regular maneuver patrols of Off Limits Areas.
  - d. All units training in OCTC will designate a Unit Movement Control Officer (E6 or higher) responsible for identifying locations of Off Limits Areas in unit training areas. Unit Movement Control Officer will sign for training areas, conduct a site inspection prior to unit training, brief unit Soldiers prior to any maneuver the location of Off Limits Areas, and ensure training units avoid all Off Limits Areas.
7. All actions contemplated in this agreement are subject to funds properly authorized and appropriated under federal law. Nothing in this agreement is intended to be nor shall be construed to be a violation of the Anti-Deficiency Act, 31 USC § 1341.

BUREAU OF LAND MANAGEMENT SIGNATURES

Amanda Hoffman

DATE: 12-19-18

Amanda L. Hoffman

Manager

Morley Nelson Snake River Birds of Prey National Conservation Area





IDAHO NATIONAL GUARD SIGNATURES



---

Michael Garshak  
Brigadier General  
The Adjutant General/Commander, IDNG

DATE: 14 NOV 2018



RECEIVED  
JUN 22 2018  
BOISE DISTRICT BLM

IDAHO BUREAU OF LAND MANAGEMENT  
ARCHAEOLOGICAL AND HISTORICAL INVENTORY RECORD  
FORM B - *NO HISTORIC PROPERTIES AFFECTED OR NO ADVERSE EFFECT*  
*HISTORIC PROPERTIES PRESENT*

BLM Report Number: 17FRFO31

Project Title: Simco-East

**Project Description:** The Cultural Baseline Inventory 2016 was a project to conduct a Class III Cultural Resource survey on 20,829 acres. A second project was to authorize a right-of-way (ROW) grant to Idaho Army National Guard to widen, use and maintain an existing dirt road across BLM land to provide IDARNG access to lands managed by the State of Idaho to conduct training on.

The Idaho Army National Guard (IDARNG) is requesting a 60 foot ROW (30 feet from center) across BLM Lands within the Morley Nelson Snake River Birds of Prey National Conservation Center (NCA) in order to access IDARNG leased state lands to the east of Simco Road. The ROW will be about 5.62 miles long. The existing dirt road will be widened, and the surface will be covered with gravel.

*Please see attached report written by Eschenbrenner, Moses, Schneider and Fruhlinger.*

The Class III Cultural Resource Surveys were conducted across the following sections:

Township: 3S	Range: 4E	Section(s): 25, 35, 36	County: Ada
Township: 3S	Range: 5E	Section(s): 19, 30, 32, 33	County: Ada
Township: 4S	Range: 4E	Section(s): 2, 3	County: Ada
Township: 4S	Range: 5E	Section(s): 4, 5, 6	County: Ada

USGS 7.5' Map Reference: Crater Rings, Cinder Cone Butte, Crater Rings SE, Crater Rings SW

**Results of Records Review and Field Examination:** The Records Review revealed a long list of previous cultural resource inventories (*see the table in original report*). The class III cultural resource survey recorded 12 new sites, 29 isolated finds and 416 items that were Noted But Not Recorded (NBNR).

**Dates of Record Search:** see Record Search #16102

**Dates of Field Work:** 2016 & 2017

**Acres Inventoried:** Intensive: 20,829 BLM 6,766 State 14,368 Military 42 Bureau of Rec 23

**Fieldwork Conducted By:** Idaho Army National Guard

**Field Methods:** Class III cultural resource survey with 30 meter transects.

---

Appendix E: Short Form Report Formats

TABLE OF ISOLATED FINDS

Site Number	Description	Land Owner	NRHP Eligibility determined by IDARNG & concurred by BLM
GFI-LS-25	Obsidian scraper	BLM	Not Eligible
GFI-LS-26	Obsidian biface	BLM	Not Eligible
GFI-LS-27	Obsidian projectile point base	BLM	Not Eligible
GFI-LS-28	Projectile point	State	Not Eligible
GFI-LS-29	Projectile point	State	Not Eligible
GFI-LS-30	Glass bottle	State	Not Eligible
GFI-LS-32	Andesite tool	State	Not Eligible
GFI-LS-34	Obsidian Elko Corner Notch projectile point	BLM	Not Eligible
GFI-LS-36	Coca-Cola bottle	BLM	Not Eligible
GFI-LS-37	Aqua glass bottle	BLM	Not Eligible
GFI-LS-38	Worked glass fragment	BLM	Not Eligible
GFI-LS-39	Obsidian projectile point base	BLM	Not Eligible
GFI-LS-40	Aqua glass soda bottle	BLM	Not Eligible
GFI-LS-41	Orange & green chert scraper	BLM	Not Eligible
GFI-LS-42	Brown glass bottle base	BLM	Not Eligible
GFI-LS-43	Brown glass bottle	BLM	Not Eligible
GFI-LS-44	Ignimbrite Rosegate Series projectile point fragment	State	Not Eligible
GFI-LS-45	Obsidian Desert Side Notched point	State	Not Eligible
GFI-LS-46	Obsidian projectile point fragment	State	Not Eligible
GFI-LS-49	Obsidian projectile point fragment	State	Not Eligible
GFI-LS-50	Obsidian Desert Side Notched point	State	Not Eligible
GFI-LS-51	80 mm tan chert projectile point	State	Not Eligible
GFI-LS-52	Light green chert biface	State	Not Eligible
GFI-LS-59	CCS biface midsection	State	Not Eligible
GFI-LS-60	Flaked blade of CCS	State	Not Eligible
GFI-LS-61	Flaked blade of CCS	State	Not Eligible
GFI-LS-62	Worked glass fragment	BLM	Not Eligible
GFI-LS-64	Glass bottle with metal lid	BLM	Not Eligible
GFI-LS-65	License plate	BLM	Not Eligible

**Rationale for "No Historic Properties Affected" or justification and proposed course of action taken to warrant a "No Adverse Effect" determination:** This large class III cultural resource survey, survey report and site forms provide strong baseline data to interpret this area.

Principal Investigator Jake Fruhlinger wrote that the proposed right-of-way grant project was evaluated as a "No Historic Properties Affected" because the existing roadway avoids passing through any cultural resource sites. Shaw concurred with Fruhlinger's assessment of proposed impacts to historic properties because all of the previously recorded and newly recorded sites are located away from the existing road.

**Conclusion:** Shaw concluded that granting the right-of-way to the IDARNG to use, widen, gravel and maintain the existing roads across BLM lands that provide access to State of Idaho lands will not impact any historic properties because the sites were recorded away from the existing roadway.

**Recommendation:** Shaw recommended that the right-of-way be issued to IDARNG to use, widen, gravel and maintain the existing roads across BLM parcels that provide access to State of Idaho lands.

*Dean C. Shaw*

*5/8/2018*

Four Rivers Archaeologist – Dean C. Shaw

Date

*Amanda Hoffman*

*5-8-18*

Morley Nelson Snake River Birds of Prey  
National Conservation Area Manager - Amanda Hoffman

Date

*Tom P... [Signature]*

*6.19.18*

Idaho State Historic Preservation Officer

Date



IDAHO STATE  
**HISTORICAL  
SOCIETY**



**C.L. "Butch" Otter**  
Governor of Idaho

**Janet Gallimore**  
Executive Director  
State Historic  
Preservation Officer

**Administration:**  
2205 Old Penitentiary Rd.  
Boise, Idaho 83712  
208.334.2682  
Fax: 208.334.2774

**Idaho State Museum:**  
610 Julia Davis Dr.  
Boise, Idaho 83702  
208.334.2120

**Idaho State Archives  
and State Records  
Center:**  
2205 Old Penitentiary Rd.  
Boise, Idaho 83712  
208.334.2620

**State Historic  
Preservation Office:**  
210 Main St.  
Boise, Idaho 83702  
208.334.3861

**Old Idaho Penitentiary  
and Historic Sites:**  
2445 Old Penitentiary Rd.  
Boise, Idaho 83712  
208.334.2844

HISTORY.IDAHO.GOV

15 March 2018

Charles Baun  
Environmental Management Office  
Idaho Army National Guard  
4715 South Byrd Street, Building 518  
Boise, Idaho 83705-8095

**Re: IDARNG Simco-East Maneuver Training Area Env Assessment  
SHPO# 2018-514**

Dear Mr. Baun:

Thank you for consulting with our office on the above referenced project. We understand the scope of work includes the development of a new training area for the Idaho National Guard in Elmore County, Idaho. The development of this new area will require land acquisition from the Bureau of Land Management.

After reviewing the project submittal, our office is concerned the proposed project actions may have the potential to affect historic properties. Typically, land transfer out of Federal ownership is considered an adverse effect under Section 106 of the National Historic Preservation Act. We request further consultation with our office at the appropriate time when Section 106 is formally initiated by the Idaho National Guard.

If you have any questions, please contact me via phone or email at 208.488.7468 or [matt.halitsky@ishs.idaho.gov](mailto:matt.halitsky@ishs.idaho.gov).

Sincerely,

**Matthew Halitsky, AICP**  
**Historic Preservation Review Officer**  
**Idaho State Historic Preservation Office**

cc Jake Fruhlinger, Idaho Army National Guard



**IDAHO NATIONAL GUARD  
JOINT FORCE HEADQUARTERS**  
4040 West Guard St., Bldg 600  
Boise, Idaho 83705-5004



NGID-EMO

18 October 2018

**MEMORANDUM FOR RECORD**

**SUBJECT: Consultation Regarding Enhancement Project**

1. The Simco East project comprises an area of approximately 20,829 acres of Bureau of Land Management (BLM) and State of Idaho lands east of and adjacent to the Idaho Army National Guard's (IDARNG) Orchard Combat Training Center (OCTC). The IDARNG is requesting a 60 foot ROW (30 feet from center) across BLM lands within the Morley Nelson Snake River Birds of Prey National Conservation Center (NCA) in order to access IDARNG-leased state lands to the east of Simco Road. Additionally, the IDARNG is currently working with the Idaho Department of Lands (IDL) to establish a long-term lease (20 years) on approximately 14,300 acres in Elmore County Idaho (Plot 21). These lands would be used to conduct military maneuver training activities to meet DOD training requirements outlined in Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way. The APE has been culturally used both prehistorically by Native Americans and historically by indigenous groups, migrants along the Oregon Trail, and contemporaneous public use. During 2016, an intensive survey of the Simco East project area was conducted to identify and protect resources that could potentially be impacted by construction and training activities. Pre-field research showed nineteen previously recorded sites, one of which has been recommended as eligible for the National Register of Historic Places (NHRP). A total of 445 isolates were found and 416 of which were noted but not recorded. The survey recorded 22 new sites: twelve historic, three prehistoric, two mutli-component, and five cairn sites. Three sites are recommended as eligible for the NHRP. The proposed project will have no effect to any of the previous or newly recorded sites. Further, the uncovering of basalt outcrops (rock bed floor) is indicative of uncovered site matrix, which leads to a corrupted time depth, therefore ruining the initial integrity of the cultural material. There is no effect to the other isolates. Therefore, the proposed project will have no effect on any known cultural properties that are recommended as eligible for listing to the NRHP.
2. In October 2018, the IDARNG prepared an environmental assessment (EA) to evaluate potential environmental, cultural, and social impacts associated with the construction, maintenance, and operations of Simco East.
3. BLM consultation was conducted with the Shoshone-Paiute Tribe through the Wings and Roots process regarding the Simco East project and Environmental Assessment on 3/18 and for Simco East Mitigation on 1/17, 2/17, 9/17, and 11/17.
4. The IDARNG sent consultation request letters and Scoping/Information Packets to the Nez Perce Tribe, Confederated Tribes of the Warm Springs, Burns Paiute Tribe, Fort McDermitt Shoshone and Paiute Tribe, Shoshone-Bannock Tribe, Shoshone-Paiute Tribe, and the Northwestern Band of the Shoshone Nation on 4/18/17, 1/5/2018 and again on 3/6/2018, which included an inclusive package of project description of Simco-East and Right-of-Way with maps and contact information and a request for consultation.

5. Concurrence letters were received from Travis Pitkin from Idaho State Historic Preservation Office (SHPO) and Dean Shaw from the BLM stating agreement on the status of no effect on any cultural resources on BLM land from the project on 3/15/2018 and 6/22/2018, respectively.
6. The Idaho SHPO reviewed the IDL sections of the report but neglected to send a concurrence letter. Due to this fact, on 10/15/2018, a meeting was conducted between the Idaho National Guard (IDNG) and Travis Pitkin and Matthew Halitsky from SHPO regarding final remarks on IDL lands surveyed as a part of the Simco East project. IDNG should be getting the final SHPO Concurrence letter regarding the IDL lands within the next two weeks.
7. Point of contact for this action is the undersigned at 208-272-4192 or [jake.c.fruhlinger.nfg@mail.mil](mailto:jake.c.fruhlinger.nfg@mail.mil).



Jake Fruhlinger  
IDNG Cultural Resources Manager and Tribal Liaison

Encl  
as



**Construction Monitoring**  
**STANDARD OPERATING PROCEDURES**  
for the  
**Idaho Army National Guard (IDARNG)**  
on the  
**Orchard Combat Training Center (OCTC)**

**I. PURPOSE**

1. This Monitoring Plan and Discovery Protocol for the unanticipated discovery of cultural materials is intended to assist the Idaho National Guard in its commitment to comply with Section 106 of the National Historic Preservation Act and the National Environmental Policy Act (NEPA) for the duration of all construction activities.

**II. AUTHORITY**

1. Section 106 of the National Historic Preservation Act.
2. National Environmental Policy Act.

**III. IDARNG RESPONSIBILITIES**

1. Archaeological monitoring will be an important aspect of all ground disturbing activities associated with construction of project within the Bureau of Land Management (BLM) Morley Nelson Birds of Prey National Conservation Area (NCA). This document describes the procedures, protocols, and responsibilities of the archaeological monitoring crew and project construction contractors. Any site testing, construction, or other project activities that involve surface or substrate disturbance will be reviewed by an archaeologist that meets the Secretary of the Interior's standards for a professional archaeologist as defined in 36 CFR 61 Appendix A (qualified archaeologist) or individuals trained by a qualified archaeologist. The archaeological monitor will review all ground-disturbing activities associated with project construction that has potential to impact cultural resources. The monitor will assess all off-limits areas within the Orchard Combat Training Center (OCTC) that may be impacted by ground-disturbing activities on a daily basis to ensure that there are no impacts associated with construction and or training activities for the duration of the construction activities.

2. Archaeological monitoring will occur with three levels of monitoring to ensure redundant monitoring. Manpower limitations do not support the presence of a trained archaeologist to be on the ground at all ground disturbance locations for the duration of all activities.

3. First level of monitoring will require contractors to receive additional ground disturbance training above and beyond the currently required environmental brief. This additional ground disturbance briefing will emphasize the importance of archaeological monitoring, what to look for, and reporting procedures.
4. Second level of monitoring will be completed by CFMO Project Office. Project Office visits work sites at least weekly and during Monday morning construction safety meetings. CFMO Project Office inspects disturbed areas at the work sites and reports all unscheduled disturbances immediately to environmental.
5. Third level of monitoring will be completed IDNG archaeologists or individuals trained by a qualified archaeologist.
6. Range Control personnel will attend daily morning construction meetings with the contractor to determine when and where ground disturbance activities will occur. Range Control will coordinate with the project office and IDNG Archaeologists to schedule the sufficient monitoring of all ground disturbing activities. Due to shortage of archaeological trained personnel, range control personnel will be trained by IDNG cultural archaeologists to supplement archaeological monitoring capabilities. The ground disturbance monitoring will occur at the beginning of each ground disturbance activity and no less than weekly until the activity is completed.

#### **IV. BLM RESPONSIBILITIES**

1. Enforce IDARNG compliance to Section 106 of the National Historic Preservation Act and the NEPA regarding ground disturbance activities on OCTC.
2. Receive, review, and record daily construction monitoring reports.

#### **V. REPORTING RESPONSIBILITIES**

1. A daily construction monitoring report will be completed by Range Control personnel and approved by the supervisory archaeologist. This daily construction monitoring report will be forwarded to the responsible project officer and BLM daily until the ground disturbance activity is completed.

#### **VI. APPROVAL/SIGNATURES**


**Bureau of Land Management, Boise District**

Signed:  Date: 2/6/2020

~~Amanda Hoffman~~ THOMAS W. MCGINNIS

Morley Nelson Birds of Prey National Conservation Area Manager

**Idaho Military Division, Orchard Combat Training Center**

Signed:  Digitally signed by  
MCRBERTS.CODY.ADAM.1152128955  
Date: 2020.01.24 12:20:04 -0700 Date: 20200124

COL Cody A. McRoberts

Commander

Garrison Training Center Gowen/OCTC

**Idaho Military Division, Construction Facilities Management Officer**

Signed: RUBEL.LEE.DAVID.1064177920 Digitally signed by RUBELLEE.DAVID.1064177920  
Date: 2020.01.13 09:27:11 -0700 Date: 20200113

LTC Lee D. Rubel, CFMO

**Idaho Military Division, Cultural Resource Manager**

Signed:  Date: 1/16/2020

Jake C. Fruhlinger, Cultural Resource Manager

## Fruhlinger, Jake C NFG NG (US)

---

**From:** Hoffman, Amanda <alhoffman@blm.gov>  
**Sent:** Thursday, March 15, 2018 2:48 PM  
**To:** Fruhlinger, Jake C NFG NG (US)  
**Cc:** Baun, Charles W NFG (US); Stitt, Dennis C Jr LTC USARMY NG IDARNG (US)  
**Subject:** [Non-DoD Source] Shoshone-Paiute Tribal Consultation - 3/15

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

Hi Jake,

Here is the update from the Wings & Roots consultation with the Shoshone-Paiute Tribes on March 15:

- **Enhancement Project** - The BLM requested tribal comment on the preliminary Enhancement EA and associated cultural surveys that were provided in September 2017. The Tribes did not express any concerns with or opposition to the project. We will need to let them know if the fence alignment changes from the preliminary EA, but otherwise consultation is complete.
- **Simco East Maneuver Training Area and ROW** - The BLM updated the Tribes on the public scoping meeting dates. The Tribes reiterated that they will provide comments through the Wings & Roots venue.

Thanks,

Amanda Hoffman  
Morley Nelson Snake River Birds of Prey  
National Conservation Area Manager  
208-384-3336  
alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov >

## **Fruhlinger, Jake C NFG NG (US)**

---

**From:** Hoffman, Amanda <alhoffman@blm.gov>  
**Sent:** Tuesday, February 27, 2018 12:55 PM  
**To:** Fruhlinger, Jake C NFG NG (US)  
**Subject:** Re: [Non-DoD Source] Tribal Consultation Topics (UNCLASSIFIED)

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

I reviewed it this morning and thought it looked good.

Thanks,

Amanda Hoffman  
Morley Nelson Snake River Birds of Prey  
National Conservation Area Manager  
208-384-3336  
alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov >

On Tue, Feb 27, 2018 at 12:51 PM, Fruhlinger, Jake C NFG NG (US)  
<jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > > wrote:  
Perfect thank you and I obviously won't write any letters to them regarding the right-of-way, correct?

Also, Charlie was going to send you an updated tribal letter regarding the state land lease that omitted any discussion of the right-of-way. If you don't get it please let me know and I will send it to you directly.

Thanks again for your help.

Jake

Sent from my iPhone

On Feb 27, 2018, at 12:45 PM, Hoffman, Amanda <alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > wrote:

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

---

Sorry, I misunderstood the question.

See notes in red below on status.

Thanks,

Amanda Hoffman  
Morley Nelson Snake River Birds of Prey  
National Conservation Area Manager  
208-384-3336  
alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > < Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > >

On Tue, Feb 27, 2018 at 12:37 PM, Fruhlinger, Jake C NFG NG (US)<jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > < Caution-Caution-mailto:jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > > > wrote:

CLASSIFICATION: UNCLASSIFIED

Thanks, I just didn't know if any of them had been finalized or if they were still ongoing. As soon as I get an agenda for the ROBVP meeting on Friday, I will send it over to you.

Jake

**From:** Hoffman, Amanda [Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > < Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > ]  
**Sent:** Tuesday, February 27, 2018 12:23 PM  
**To:** Fruhlinger, Jake C NFG NG (US) <jake.c.fruhlinger.nfg@mail.mil < Caution-Caution-mailto:jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > > >  
**Subject:** Re: [Non-DoD Source] Tribal Consultation Topics (UNCLASSIFIED)

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

The list below is still comprehensive of our consultation. Simco Road ROW would be the other major project of note.

Thanks,

Amanda Hoffman

Morley Nelson Snake River Birds of Prey

National Conservation Area Manager

208-384-3336

alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > < Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > < Caution-Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > < Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > >

On Tue, Feb 27, 2018 at 11:27 AM, Fruhlinger, Jake C NFG NG (US) <jake.c.fruhlinger.nfg@mail.mil < Caution-Caution-mailto:jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > > < Caution-Caution-Caution-mailto:jake.c < Caution-mailto:jake.c > .fruhlinger.nfg@mail.mil < Caution-mailto:fruhlinger.nfg@mail.mil > < Caution-Caution-mailto:jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > > > > wrote:

CLASSIFICATION: UNCLASSIFIED

Amanda,

Sorry to bug you again. Besides the DAGIR, the Lease, and the Land Exchange, are there any other Guard agenda items that you are working on through the Wings and Roots process? Since you are going to make it clear to the Shoshone-Paiute Tribes that the BLM is not consulting on behalf of the IDNG, NGB is concerned that we are leaving ourselves hanging out without something official showing that we are trying to consult with the tribes (at the minimum, official certified letters,

etc.). I am still trying to get more info on the dual consultation thing but in the meantime NGB does not want us leaving ourselves open.

Thanks, Jake

**From:** Hoffman, Amanda [Caution-Caution-Caution-mailto:alhoffman@blm < Caution-mailto:alhoffman@blm > .gov < Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > < Caution-Caution-Caution-mailto:alhoffman < Caution-mailto:alhoffman > @blm.gov < Caution-http://blm.gov > < Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > > ]

**Sent:** Friday, January 19, 2018 8:43 AM

**To:** Baun, Charles W NFG (US) <charles.w.baun.nfg@mail.mil < Caution-mailto:charles.w.baun.nfg@mail.mil > < Caution-Caution-mailto:charles.w.baun.nfg@mail.mil < Caution-mailto:charles.w.baun.nfg@mail.mil > > < Caution-Caution-Caution-mailto:charles.w < Caution-mailto:charles.w > .baun.nfg@mail.mil < Caution-mailto:baun.nfg@mail.mil > < Caution-Caution-mailto:charles.w.baun.nfg@mail.mil < Caution-mailto:charles.w.baun.nfg@mail.mil > > > >; Fruhlinger, Jake C NFG NG (US) <jake.c.fruhlinger.nfg@mail.mil < Caution-Caution-mailto:jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > > < Caution-Caution-Caution-mailto:jake.c < Caution-mailto:jake.c > .fruhlinger.nfg@mail.mil < Caution-mailto:fruhlinger.nfg@mail.mil > < Caution-Caution-mailto:jake.c.fruhlinger.nfg@mail.mil < Caution-mailto:jake.c.fruhlinger.nfg@mail.mil > > > >

**Subject:** [Non-DoD Source] Tribal Consultation Topics

All active links contained in this email were disabled. Please verify the identity of the sender, and confirm the authenticity of all links contained within the message prior to copying and pasting the address to a Web browser.

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Since October 2015:

- OCTC Enhanced Cultural Protection Plan (8/15, 10/15, 2/16) - **Completed**
- DAGIR (2/16, 3/16, 4/16, 5/16) - **Completed**
- IDARNG Proactive Archaeological Surveys (3/16) - **Completed**
- IDARNG (Simco) Road ROW (1/17, 2/17, 9/17, 11/17) - **Ongoing**
- Orchard Land Exchange (1/17, 3/17) - **Ongoing**
- DAGIR Mitigation (3/17, 7/17, 9/17, 10/17, 11/17) - **Ongoing**
- OCTC Lease - (10/19) - **Completed due to IDARNG's withdrawal of their application.**

Thanks,



Amanda Hoffman

Morley Nelson Snake River Birds of Prey

National Conservation Area Manager

208-384-3336

alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > < Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > < Caution-Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > < Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > > < Caution-Caution-Caution-mailto:alhoffm < Caution-mailto:alhoffm > an@blm.gov < Caution-mailto:an@blm.gov > < Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > < Caution-Caution-Caution-mailto:al < Caution-mailto:al > hoffman@blm.gov < Caution-mailto:hoffman@blm.gov > < Caution-Caution-mailto:alhoffman@blm.gov < Caution-mailto:alhoffman@blm.gov > > > >

CLASSIFICATION: UNCLASSIFIED

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CLASSIFICATION: UNCLASSIFIED



**STATE OF IDAHO LEASE  
COMMERCIAL LEASE NO. M600069**

**IDAHO NATIONAL GUARD**

1. Lease Data

1.1 Lessor Name and Address: STATE OF IDAHO,  
by and through the State Board of Land Commissioners  
300 North 6<sup>th</sup> Street  
PO Box 83720  
Boise ID 83720-0050

1.2 Lessee Name and Address: Idaho National Guard  
Attn:Col. Thomas R. Rasmussen  
4715 South Byrd Street  
Boise ID, 83705

1.3 Lease Term: October 1, 2017 to September 30, 2036

1.4 Rent: Rent shall be paid in two installments:  
The first lease installment in the amount of \$218,313.73 shall be paid upon execution of this Lease.  
The second lease installment in the amount of \$218,313.73 shall be due and payable on or before January 1, 2028.

1.5 Leased Premises:

Twncshp	Rng	Sec	Description	Acres	Fund	County
03S	04E	36	ALL	640	PS	Elmore
03S	05E	13	ALL	640	AC	Elmore
03S	05E	14	ALL	640	NS	Elmore
03S	05E	21	Pts N2N2 south of fence line, S2N2, S2	629	NS	Elmore
03S	05E	22	Pts N2N2 south of fence line, S2N2, S2	633	NS	Elmore
03S	05E	23	ALL	640	AC	Elmore
03S	05E	24	ALL	640	AC	Elmore
03S	05E	25	ALL	640	AC	Elmore
03S	05E	26	ALL	640	AC	Elmore
03S	05E	27	ALL	640	AC	Elmore
03S	05E	28	ALL	640	AC	Elmore
03S	05E	29	ALL	640	NS	Elmore
03S	05E	32	ALL	640	NS	Elmore
03S	05E	33	ALL	640	AC	Elmore
03S	05E	34	ALL	640	AC	Elmore
03S	05E	35	ALL	640	AC	Elmore
03S	05E	36	ALL	640	PS	Elmore
03S	06E	18	ALL	640	AC	Elmore
03S	06E	19	ALL	640	AC	Elmore
03S	06E	20	W2, Pts W2E2 west of Bypass Road	354	AC	Elmore

Twنشp	Rng	Sec	Description	Acres	Fund	County
03S	06E	29	W2, Pts W2E2 and Pts SESE west of Bypass Road	439	AC	Elmore
03S	06E	30	ALL	640	AC	Elmore
03S	06E	31	N2, Pts S2 north of SH67	560	AC	Elmore
03S	06E	32	NWNE, N2NW, SWNW, Pts SENW, Pts S2NE and Pts N2SW all north of SH 67 and west of Bypass Road	245	AC	Elmore

- 1.6 Use of Premises: These lands would be used to conduct military maneuver training activities to meet DOD training requirements outline in the Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way.
- 1.7 Amount of Bond: No Bond required.
- 1.8 Amount of Insurance: Insurance for Government Entities as provided in Section A.14.B. of this Lease.
- 1.9 Exhibits Index: EXHIBIT A – SITE MAP  
EXHIBIT B – EXISTING IMPROVEMENTS  
EXHIBIT C – SPECIAL TERMS AND PROVISIONS

DRAFT

The Lessor and Lessee agree that this lease data and lease provisions, together with all Exhibits referred to above and attached hereto, are incorporated by reference and form an integral part of this Lease.

**IDAHO STATE BOARD OF LAND COMMISSIONERS**

\_\_\_\_\_  
Secretary of State

\_\_\_\_\_  
President of the State Board of Land Commissioners  
and Governor of the State of Idaho

\_\_\_\_\_  
Director, Department of Lands

**STATE OF IDAHO, COUNTY OF ADA**

IN WITNESS WHEREOF, the parties hereto have caused these presents to be duly executed the day and year herein written.

On this \_\_\_\_\_ day of \_\_\_\_\_ in the year \_\_\_\_\_, before me, a Notary Public in and for said State, personally appeared C.L. "Butch" Otter, known to me to be the President of the Idaho State Board of Land Commissioners and the Governor of the State of Idaho; and Ben Ysursa, known to me to be the Secretary of the State of Idaho and George B. Bacon, known to me to be the Director, Idaho Department of Lands, that executed the within instrument, and acknowledged to me that the State Board of Land Commissioners of the State of Idaho and the State of Idaho executed the same.

Seal

\_\_\_\_\_  
Notary Public

Commission Expires \_\_\_\_\_

**LESSEE SIGNATURE(S)**

\_\_\_\_\_  
LESSEE

\_\_\_\_\_  
LESSEE

STATE OF \_\_\_\_\_ )  
  ) : s  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_, before me, a Notary Public in and for said State, personally appeared \_\_\_\_\_

\_\_\_\_\_ known to me to be the Lessee that executed the within instrument and acknowledged to me that   he   executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on the day and year last above written.

Seal

\_\_\_\_\_  
Notary Public

Commission Expires \_\_\_\_\_

## LEASE PROVISIONS

**1. Rent.**

All rent shall be paid in lawful money of the United States of America directly to the Lessor on or before the date any such rent is due unless otherwise directed by the Lessor in writing. The amount of rent due during the term of this Lease is calculated pursuant the chart below.

<u>Year</u>	<u>Acreage</u>	<u>Cost/AC</u>	<u>Amount</u>
1	14380	\$1.13	\$16,249.40
2	14380	\$1.16	\$16,736.88
3	14380	\$1.20	\$17,238.99
4	14380	\$1.23	\$17,756.16
5	14380	\$1.27	\$18,288.84
6	14380	\$1.31	\$18,837.51
7	14380	\$1.35	\$19,402.63
8	14380	\$1.39	\$19,984.71
9	14380	\$1.43	\$20,584.25
10	14380	\$1.47	\$21,201.78
11	14380	\$1.52	\$21,837.83
12	14380	\$1.56	\$22,492.97
13	14380	\$1.61	\$23,167.76
14	14380	\$1.66	\$23,862.79
15	14380	\$1.71	\$24,578.68
16	14380	\$1.76	\$25,316.04
17	14380	\$1.81	\$26,075.52
18	14380	\$1.87	\$26,857.78
19	14380	\$1.92	\$27,663.52
20	14380	\$1.98	\$28,493.42
Total			\$436,627.46

Although the lease rent has been calculated in accordance with the above-table, the rent shall be paid in two installments. The first lease installment in the amount of \$218,313.73 shall be paid upon execution of this Lease. The second lease installment in the amount of \$218,313.73 shall be due and payable on or before January 1, 2028. The rent payments shall be due and payable in the manner and at the time set forth herein, without abatement, offset or deduction of any kind unless allowed by this Lease:

- A. **Late Payment Charge.** If any rental installment is not paid in full by the due date, the Lessor may declare a default and terminate the Lease upon ninety (90) days written notice to Lessee. In the event any rent due hereunder is not paid in full when due, Lessee shall pay, in addition to such rent, a late charge in the first calendar month of such delinquency the amount of Twenty Five Dollars (\$25.00) or one percent (1%) of the unpaid rent, whichever is greater. For each subsequent calendar month of delinquency in the payment of the rent due, Lessee shall pay an additional late charge equal to one percent (1%) of the then unpaid rent, plus interest accruing at the legal rate of interest for amounts owing. The parties acknowledge and agree that the late charge described herein is a reasonable attempt to estimate and to compensate Lessor for higher administration costs associated with administering such late payments and is not intended as a penalty. By assessing this late charge, Lessor does not waive any right to declare a breach and to pursue any right or remedy available to Lessor by reason of such breach, after expiration of any applicable notice or cure period.

- B. Extensions of Time to Pay. Lessee may make application to extend the time for paying rent in accordance with the then existing statutes, rules and policy applicable to state endowment lands. If an extension is requested and approved by Lessor before the deadline for paying rent, then the Lessee shall not be required to pay a late payment fee, but shall be required to pay interest, in addition to such rent, at the then existing rate established by the Lessor or at the legal rate of interest if no rate is then established.
- C. Lien. The amount of the unpaid rent, late charge, and interest shall be a lien on the Lessee's improvements and other property on the Leased Premises.

**2. Use of Leased Premises.**

- A. The leased Premises shall be used to conduct military maneuver training activities to meet DOD training requirements outlines in Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way.
- B. Any new or additional use of the Leased Premises shall require Lessor's prior written consent. Any new or additional use by Lessee without the authorization of Lessor is prohibited and is grounds for termination of the Lease as defined herein.
- C. Lessee agrees to not commit, nor permit any damage to or waste upon the Leased Premises or upon any of the improvements, nor permit any unlawful use of the Leased Premises, nor permit any use thereof except for the purposes stated herein.

**3. Lease Renewal Terms and Conditions.**

On or before April 30, 2037, the Lessee may apply for an additional lease term. The decision to grant an additional lease term, the rental amount, and all other terms and conditions of any new lease or extension or renewal of this Lease shall be in the sole discretion of Lessor, and Lessee understands and agrees that the terms and conditions of a new or renewed lease may be materially different than those in this Lease. The Lessor will consider any such new, renewed or extended lease only when the Lessee has complied with all provisions of this Lease and has fully and faithfully performed all duties and obligations herein. If Lessor and Lessee cannot successfully negotiate the rent and terms of any new lease, renewal or extension hereof prior to the expiration date of this Lease, Lessee agrees to vacate the premises subject to the terms of this Lease, including, but not limited to, EXHIBIT A, Sections A.10.D. and A.10.E.

**4. Bond.**

Lessee shall not be required to provide a bond.

**5. Sublease and Assignment.**

- A. No Sublease or Assignment Without Consent. Lessee shall not sublease all or any part of the Leased Premises, or sublease all or any part of Lessee's improvements, or assign this Lease, or take out a mortgage or deed of trust without obtaining the prior written consent of Lessor.
- B. Necessary Forms. Any request for approval of a sublease, assignment, mortgage, or deed of trust must be in writing, on forms provided by the Lessor and accompanied by a processing fee to be established by Lessor. Any attempt by Lessee to sublease Lessee's interest in all or any part of the land or all or any part of the Lessee's improvements, or to assign this Lease, or to take out a mortgage or deed of trust, without the prior written consent of Lessor, shall be void and shall constitute a breach of this Lease.
- C. Good Standing Required. No request for Lessor's approval of any assignment or sublease will be considered unless all rent due, late payment fees, and interest have been paid in full, and Lessee is in good standing under the terms of the Lease.
- D. Sublease and Assignment Subject to Lease. Any sublease or assignment shall be subject to all of the terms and provisions of this Lease. The Lessor may impose additional requirements as a condition of approving any sublease or assignment request.

- E. Specific Transaction Only. Any consent by Lessor herein contained or hereafter given to any act, sublease or assignment, mortgage, pledge, or encumbrance shall be held to apply only to the specific act or transaction hereby or thereby approved or consented to.
- F. Proof of Assignment. Lessee shall not sell or assign its interest under this Lease without obtaining the prior written consent of Lessor; and Lessee shall thereafter provide to Lessor one copy of the assignment or purchase agreement or contract of sale signed and acknowledged by the buyer (Assignee) and Lessee/seller (Assignor). In the case of assignment without a sale, appropriate documentation must be provided to the Lessor establishing that the lease should be assigned. This may include, but not be limited to, a letter from Lessee indicating the transfer of the lease as a gift; by reason of a divorce decree; or probate order. Lessor may require additional proof as necessary. An assignment of Lessee's interest in this Lease shall not release Lessee from any obligation under this Lease without an express release of liability of Lessee being executed by Lessor. In the event of an assignment, Lessor may release Lessee of liability in its sole discretion.
- G. Lessee may sublease portions of its specific improvements provided that each such sublease shall be subject to all terms and conditions of this Lease, including termination of Lessee's interest under this Lease. Any such sublease shall be subject to and subordinate to the rights of the Lessor under this Lease, and any such sublease shall include, but not be limited to, the following:
  - i. No sublease shall relieve Lessee of its responsibility to pay and perform all of its obligations under this Lease to Lessor.
  - ii. The term of the sublease may not exceed the term of this Lease.
  - iii. The Lessor shall not be responsible in any way for any act or omission of the Lessee.
  - iv. The Lessor shall not be liable for any payment or portion thereof paid or prepaid for rent, security deposit or other pre-paid charge, if any, made by Lessee, or paid to Lessee by any sublessee or assignee should this Lease be cancelled or terminated.

6. **Lessee's Compliance with Applicable Laws and Rules.**

- A. Full Compliance. Lessee's use of the Leased Premises and all improvements constructed thereon, shall fully comply with all statutes, ordinances, rules, regulations and laws of all applicable federal, state and local governmental authorities. Lessee shall comply with all applicable rules, policies and standards currently in effect or hereafter adopted by the Idaho State Board of Land Commissioners or the Idaho Department of Lands.
- B. No Waste or Nuisance. Lessee shall not use the Leased Premises in any manner that would constitute waste, nor shall the Lessee allow the same to be committed thereon. The Lessee shall not do anything or allow any action that will create a nuisance or a danger to persons or property.
- C. Noxious Weeds. It is understood and agreed that the Lessee shall take measures to control noxious weeds upon the Leased Premises, in accordance with Title 22, Chapter 24, Idaho Code. The Lessee shall cooperate with state and other agencies authorized to undertake programs for control and/or eradication of noxious weeds. Failure to comply will be considered a breach of this Lease and shall be considered a default pursuant to Section A.18 herein.

7. **Environmental, Safety, and Sanitary Requirements.**

- A. Sanitary Requirements. Lessee shall at all times keep the Leased Premises in a clean and sanitary condition, free of trash, noxious weeds, garbage and litter, so that the Leased Premises are maintained in as nearly natural state as possible. Lessee shall not dispose of sewage except in conformity with applicable federal, state, and local law, rules and regulations pertinent to Lessee's use. The Lessee shall store and dispose of all trash and garbage in conformity with all legal requirements. Lessee shall be responsible for all costs associated with sewage, garbage and litter disposal.
- B. Fire and Safety Regulations. Lessee shall comply with all applicable state laws and rules of the Department of Lands for fire protection and prevention of fire. Lessee agrees to keep the Leased Premises free from fire

hazards. Lessee is prohibited from burning garbage or household trash. The burning of wood or other debris shall require the prior written permission of Lessor and must comply with applicable federal, state, or local law, regulation, rule, or ordinance.

- C. No Hazardous Materials. Lessee shall neither use nor permit upon the Leased Premises the use, placement, transport or disposal of any hazardous waste or any other substance that is or is suspected to be a hazardous substance or material except as provided by federal, state or local law, rule, regulation or ordinance. Lessee shall be responsible, at its own expense, for removing and for taking all other necessary or appropriate remedial action regarding such wastes, substances, or materials which Lessee may cause to be introduced, in accordance with applicable federal, state, or local laws, rules, regulations, or ordinances.

**8. No Warranty of Suitability.**

- A. No Warranty. Lessee acknowledges that neither the Lessor, nor any agent or designee of the Lessor, has made any representation or warranty with respect to the Leased Premises or concerning the suitability of the Leased Premises for the uses intended by the Lessee. Lessee acknowledges that it has accepted the Leased Premises in an "AS IS CONDITION," and accepts liability for its condition.
- B. Quiet Enjoyment. Lessor agrees that the Lessee, upon payment of the rent and performing the terms of this Lease, may quietly have, hold, and enjoy the Leased Premises during the term hereof.

**9. Payment of Taxes and Assessments.**

On or before the same become due, the Lessee agrees to pay any and all real or personal property taxes, assessments or fees that may be assessed or levied by any governmental authority asserting such authority over the Leased Premises or its improvements. Lessee shall make such payment directly to the taxing or assessing authority and hold Lessor harmless from any and all such claims or assessments.

**10. Construction and Improvements.**

- A. Water Development. Lessee shall not drill new water wells, use existing water wells, or develop any use of any water source without first obtaining the prior written consent of the Lessor and any applicable governmental authority responsible for adjudicating and developing water rights. Lessee agrees that all water rights shall be in the name of the State of Idaho.
- B. Construction and Repair of Improvements. No construction of improvements upon or over the Leased Premises shall be allowed without the prior written consent of the Lessor. Improvements authorized by Lessor shall be approved improvements. All improvements constructed or placed upon the Leased Premises without the prior written consent of Lessor shall be non-approved improvements.
- C. Liens or Encumbrances. Lessee shall have no authority to and shall not place, attempt to place, or allow any lien or encumbrance upon the state land subject to this Lease or any improvements owned by Lessor. The Lessee shall not place, attempt to place, or allow any lien or encumbrance of the Lease or any Lessee-owned improvements without the prior written consent of the Lessor. Lessee shall cause any and all liens or encumbrances upon the Leased Premises, the Lease or any improvements not specifically authorized or allowed hereunder to be removed immediately, but not later than thirty (30) days after notice thereof; and Lessee shall be responsible for all costs and expenses related thereto and for all costs and expenses incurred by Lessor by reason thereof, said costs and expenses incurred by Lessor to be indemnified by Lessee.
- D. Treatment of Existing Improvements. Existing improvements, as of the date of execution of this Lease, are attached hereto and incorporated herein in EXHIBIT C. Upon lease expiration without renewal; lease termination; or upon default of the Lease:
- i. Lessor shall have the right to require Lessee to remove all improvements placed upon the Leased Premises and to require Lessee to restore the Leased Premises, as nearly as is reasonably practical, to its natural or previous condition, all at Lessee's sole cost and expense.
  - ii. Lessor shall have the right to enter the Leased Premises and remove any of the improvements, or otherwise dispose of such improvements, and charge the cost of removal and/or disposal and restoration



of the Leased Premises to Lessee. Lessee shall also be responsible for all collection costs, including legal fees and interest.

- iii. Lessee shall quietly surrender the Leased Premises to Lessor.
  - iv. Lessor shall have the right to purchase existing improvements from Lessee at a reasonable market value, as defined in EXHIBIT A, Section A.10.F. of this Lease, as of the date of termination.
- E. Treatment of Improvements Upon Abandonment. If such removal or purchase as described herein has not occurred by the date that the Lease expires and has not been renewed, has been terminated, or at the date of Lessee's default, all right, title and interest of the Lessee to any and all of the approved improvements shall, upon thirty (30) days written notice to Lessee, or at a date determined at the sole discretion of the Lessor, but not less than thirty (30) days, be deemed to revert to the State of Idaho, and shall be considered abandoned in place by the Lessee. Non-approved improvements remaining on the Leased Premises shall be deemed abandoned and all right, title and interest therein shall revert to the state upon any termination of this Lease following notice to Lessee in accordance with Section A.10.H. Abandonment shall not affect Lessor's right to remove any of the improvements nor release Lessee for any obligation for any cost or expense incurred to remove any of the improvements and restore the Leased Premises. Following any abandonment, improvements shall be removed from the Leased Premises at the sole discretion of the State of Idaho, Department of Lands.
- F. Market Value. Market value is defined in this Lease as "The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms for which the specified improvement(s) should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest and assuming that neither is under undue duress."
- G. Disputes arising out of a determination of Market Value of the approved improvements shall follow these procedures:
- i. The approved improvements shall be valued by a qualified employee of Lessor or by an independent licensed appraiser hired by and at the cost of the Lessor. All valuations shall be administered and controlled by Lessor, and all appraisers shall use appraisal instructions provided by the Lessor. The Lessor reserves the right to accept or reject any valuation at its discretion. The valuation of the improvements shall be as of the date of the expiration, termination, non-renewal or default of the Lease.
  - ii. The Lessee shall have sixty (60) days to review said appraisal. If the valuation is not acceptable to the Lessee, the Lessee shall, within said period, provide an appraisal performed by a licensed appraisal for Lessor's review and consideration that may support a different improvement valuation.
  - iii. If Lessee provides an appraisal within said period for Lessor's review, the Lessee and Lessor shall meet to review the circumstances and try to resolve the differences in the valuation within 15 business days following the end of the sixty (60) day review period described above.
  - iv. If the differences in this valuation cannot be resolved, then the Lessor may in its discretion appoint a three (3) person panel to make recommendations to the Director of the Department of Lands. All information shall be reviewed by this panel as to the market value of the improvements. The Lessee shall be responsible for any additional expenses incurred by the Lessor and the Lessee during the process defined in this provision, A.10.G., following submission of Lessee's appraisal.
- H. Treatment of non-approved improvements at any time during the Lease and upon lease expiration without renewal, or termination, or default under the Lease.
- i. Lessor shall have the right to require Lessee to remove all non-approved improvements placed, or caused to be placed upon the Leased Premises, and to require Lessee to restore the Leased Premises, as nearly as is reasonably practical, to its natural or previous condition, all at Lessee's sole cost and expense. If removal as described above has not occurred by the date that the Lease expires without being renewed, or has been terminated by reason the Lessee's default or otherwise, all right, title and interest of the Lessee to any of the non-approved improvements shall upon thirty (30) days written notice to the Lessee,

or at a date determined at the sole discretion of the Lessor, but not less than thirty (30) days, be deemed to revert to the State of Idaho, and shall be considered abandoned in place by the Lessee.

- ii. Any non-approved improvement not removed by the Lessee may be removed by the Lessor at the Lessee's sole cost and expense. During the term of this Lease, Lessor shall have the right to enter upon the Leased Premises and remove any of the non-approved improvements, or otherwise dispose of such improvements, and charge the cost of removal and/or disposal and restoration to the Lessee. The Lessee shall be responsible to Lessor for any and all costs and expenses incurred by Lessor to remove any improvement and to restore the Leased Premises, including, but not limited to, attorney fees and collection costs.

**11. Lessor's Right of Sale or Exchange.**

Lessor reserves the right to sell or exchange all or any portion of the Leased Premises subject to the Lease.

**12. Lessor's Right to Reclassify.**

The Lessor reserves the right to reclassify the lands covered by this Lease and to terminate this Lease with one hundred eighty (180) days written notice of termination to Lessee. Lessee hereby covenants to deliver immediate possession of the lands reclassified to Lessor or to the person or party as may be specified in writing by Lessor or its authorized agent. The person or party who shall take possession of said reclassified land, shall pay Lessee the market value of the approved improvements, provided that Lessee shall not be entitled to compensation with respect to any non-approved improvements made or erected upon the Leased Premises.

**13. Relations of the Parties.**

Lessee is not an officer, employee, or agent of the Lessor. Lessee covenants that it will satisfy and hold Lessor harmless against any lien, judgment, or encumbrance filed or made against the Leased Premises at the Lessee's sole and separate cost and expense.

**14. Insurance.**

- A. Commercial General Liability. Lessee shall obtain, at Lessee's expense, and keep in effect during the term of this Lease, Commercial General Liability Insurance covering bodily injury and property damage. This insurance shall include personal injury coverage, contractual liability coverage for the indemnity provided under this Lease. Coverage shall be combined single limit per occurrence, which shall not be less than One Million Dollars (\$1,000,000), or the equivalent. Each annual aggregate limit shall not be less than One Million Dollars (\$5,000,000), when applicable.
- B. Insurance for Governmental Entities. A governmental entity may offer self insurance as an alternative to purchasing commercial liability insurance under the provisions of this Lease. A self-insured Lessee shall provide sufficient evidence to the Lessor that the self-insured maintains a fully funded reserve account, sufficient to meet reasonably anticipated claims of not less than One Million Dollars (\$1,000,000.00) that indemnifies the State and the Department of Lands from third party liability claims for bodily injury and property damage.
- C. Property Insurance. Lessee shall throughout the term of this Lease, at its own expense, keep and maintain in full force and effect, property insurance for what is commonly referred to as "All Risk" coverage, excluding earthquake and flood, on Lessee's improvements and personal property.
- D. Workers' Compensation. Lessee shall maintain all required coverages including Employer's Liability.
- E. Additional Insured. The liability insurance coverage required for performance of the Lease shall include the State of Idaho, the State Board of Land Commissioners, and the Department of Lands, its officers, agents, and employees as Additional Insureds, but only with respect to the Lessee's activities arising during the performance of this Lease. There shall be no cancellation, material change, potential exhaustion of aggregate limits or intent not to renew insurance coverages without thirty (30) calendar day's written notice from the Lessee or its insurer to the Department of Lands. Any failure to comply with the reporting provisions regarding insurance, except for the potential exhaustion of aggregate limits, shall not affect coverages

provided to the State of Idaho, the State Board of Land Commissioners and the Department of Lands, its officers and employees.

- F. Insurance Policy Requirements. All insurance required under this paragraph shall be with companies approved by Lessor. No insurance policy required under this section shall be cancelled or reduced in coverage except after thirty (30) calendar day's prior written notice to Lessor. All insurers shall have a Bests' rating of A- or better and be authorized to do business in the State of Idaho. Lessee shall deliver to Lessor prior to occupancy, and at least annually thereafter, copies of all policies of such insurance or certificates evidencing the existence of the minimum required insurance and evidencing Lessor as Additional Insured thereunder. In no event shall the limits of any insurance policy required under this section be considered as limiting the liability of Lessee under this Lease.
- G. Lessee shall provide certificates of insurance or other documentation certifying Lessee's possession of insurance policies required herein to Lessor within ten (10) days of Lessor's written request.

**15. Indemnification.**

Lessee shall indemnify, defend, and hold harmless the Lessor, the State of Idaho, its officers, agents, and employees from and against any liability, claims, damages, losses, debts, obligations, liens, judgments, expenses or actions, including reasonable attorney fees caused by or arising out of any act or omission of Lessee, or Lessee's agents, employees or invitees, or any act or omission arising out of or connected with the use or occupation of the Leased Premises or arising from the Lessee or Lessee's agents, or employee's failure to comply with any applicable law. If it becomes necessary for the Lessor to defend any action seeking to impose any such liability, the Lessee shall pay the Lessor all costs of court and attorney fees incurred by the Lessor in effecting such defense in addition to all other sums that the Lessor may be called upon to pay by reason of the entry of a judgment against it in any litigation in which any such claim is asserted. This indemnification shall survive the termination or expiration of this Lease.

**16. Inspection and Audit Rights.**

- A. Inspection by Lessor. Lessee shall permit Lessor or Lessor's authorized agent or designee to inspect and enter the Leased Premises and any improvements at any reasonable time.
- B. Audit Rights. The Lessor shall have the right to audit, in such a manner, and at all reasonable times as it deems appropriate, all activities of the Lessee arising in the course of its operation under this Lease. Lessee must maintain its books, records, documents, and other evidence of accounting in accordance with generally accepted accounting principles so as to properly reflect its business. At Lessor's sole discretion, an audit of the Lessee's books or the supporting tax documents that have been filed with the Internal Revenue Service or the State Sales Tax Report may be performed by a Certified Public Accountant or agent of the Department of Lands. If gross receipts is applicable under this Lease, and if an audit of gross receipts shows a discrepancy of ten percent (10%) or more of any amounts due under this Lease, any additional rental owed, all late fees calculated from the date the additional rent would have been due, and the entire cost of the audit, shall be paid to the Lessor within thirty (30) days written notice to Lessee, unless otherwise agreed upon in writing by Lessor.

**17. Reservations by Lessor.**

The Lessor expressly reserves and excepts the following rights from the Lease:

- A. All timber rights, rights for oil and gas, geothermal rights, mineral rights, easements and rights-of-way, fee title to the Leased Premises, and title to all appurtenances and improvements placed thereon by the Lessor.
- B. The right to grant easements over the Leased Premises, providing said easements do not conflict in a material way with the approved improvements installed and maintained or operated by the Lessee upon the Leased Premises.
- C. The right to require that changes are made to the sanitation or other facilities for the protection of public health, safety or preservation of the Leased Premises.

- D. The right to issue leases for exploration and development of oil, gas, geothermal and mineral resources or any other lease, so long as such other use does not materially interfere with the authorized use under this Lease.
- E. To reserve, as its sole property, any and all water from any source arising on state land and to hold the water rights for any beneficial use that may develop as a result of this Lease.
- F. Right of ingress and egress over and across the herein described premises for itself and its assigns on existing roads or suitable alternative roads provided by the Lessee.

**18. Lessee's Default.**

- A. Lessee's breach of any of the terms of this Lease shall constitute a default and shall be a basis for termination of the Lease. Lessor shall provide Lessee written notice of the breach or violation and, if applicable, the corrective action required of Lessee. The notice shall specify the reasonable time to make a correction or cure the violation or breach. If the corrective action or cure is not taken within the specified time or does not occur, then the Lessor may cancel the Lease effective on the date specified for the corrective action or cure to have taken place.
- B. Lessee agrees to relinquish possession of the Leased Premises upon cancellation of the Lease with all permanent improvements thereon in good order and condition. In addition to the rights and remedies specifically granted to Lessor under this Lease, Lessor shall have such other rights and remedies against Lessee as may be available at law or in equity, and Lessor's pursuit of any particular remedy for breach or default shall not, in and of itself, constitute a waiver or relinquishment of any other available claim of Lessor against Lessee.

**19. Notices.**

All notices including, but not limited to, a change in address, given in connection with this Lease shall reference the lease number, shall be in writing and shall be delivered either by hand or by regular United States Mail to Lessor or Lessee, respectively, at the address listed on the Lease at page 1 in Section 1.1. In addition to any notice given by the Lessee to the Lessor as provided in the lease data in Section 1.1 above; Lessee shall send any such notice to the Lessor at Idaho Department of Lands, 8355 W State Street, Boise, Idaho 83714.

**20. Waiver.**

The waiver by the Lessor of any breach of any term, covenant, or condition of this Lease shall not be deemed to be a waiver of any past, present, or future breach of the same or any other term, covenant, or condition of this Lease. The acceptance of rent by the Lessor hereunder shall not be construed to be a waiver of any term of this Lease. No payment by the Lessee of any amount less than that due and owing according to the terms of this Lease shall be deemed or construed to be other than a partial payment on account of the most recent rent due, nor shall any endorsement or statement of any check or letter accompanying any payment be deemed to create an accord and satisfaction.

**21. Attorney Fees and Costs.**

In the event either party to this Lease shall institute a lawsuit of any kind under this Lease or any action is taken by either party to obtain performance of any kind under this Lease, the unsuccessful party to such litigation shall pay to the prevailing party all costs and expenses, including reasonable attorney fees, accountant fees and appraiser fees, and the fees of other experts, incurred therein by the prevailing party, including all such costs and expenses incurred with respect to an appeal and such may be included in the judgment entered in any such action.

**22. Officials, Agents and Employees Not Personally Liable.**

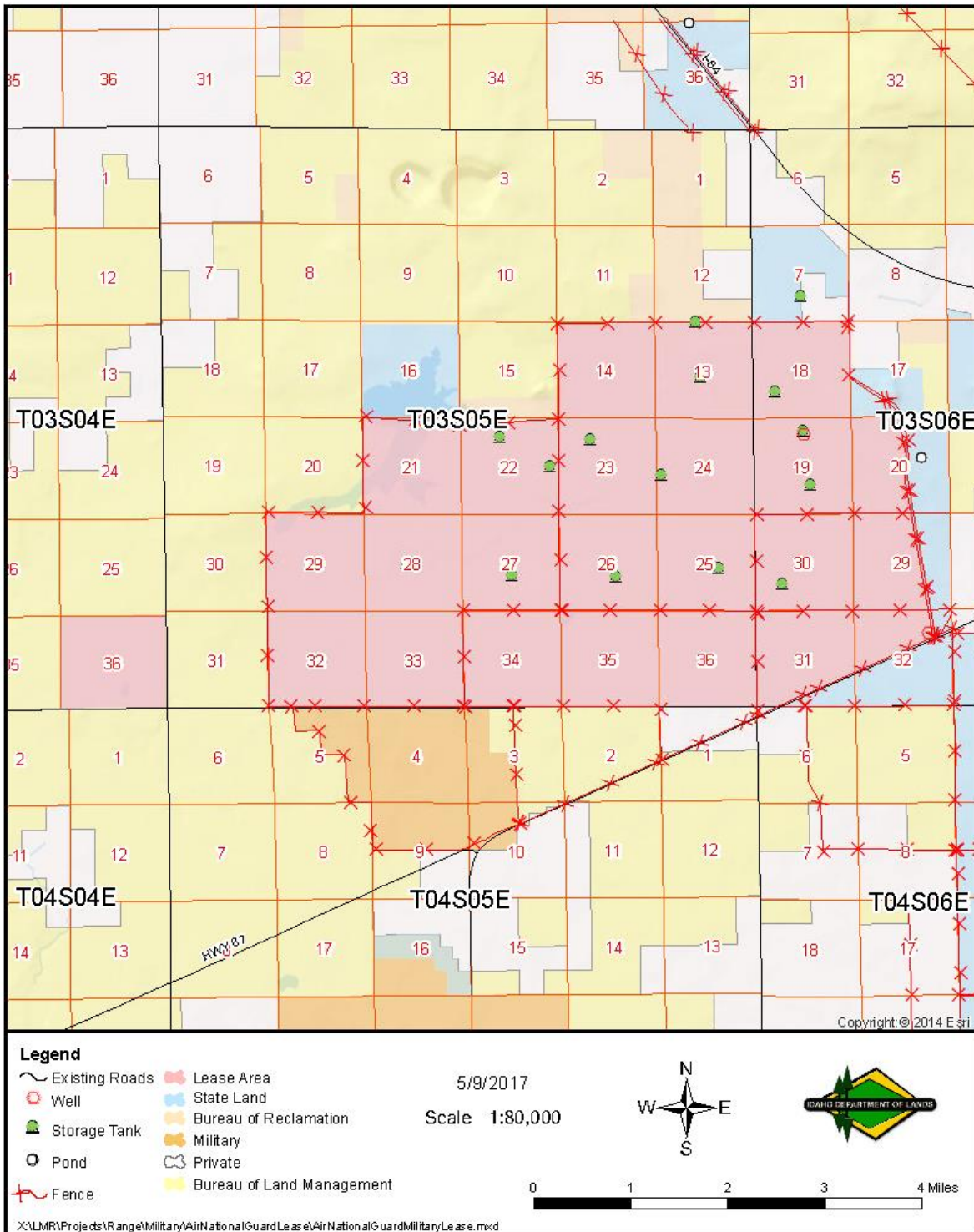
In no event shall any official, officer, employee or agent of the State be in any way personally liable or responsible for any covenant or obligation contained in this Lease, express or implied, nor for any statement, representation or warranty made in connection herewith.

**23. Miscellaneous.**

- A. Modification. The lease terms, excluding the rent adjustments, may be modified only by the prior written consent of the authorized representatives of both the Lessor and Lessee.
- B. Complete Statement of Terms. No other understanding, whether oral or written, whether made prior to or contemporaneously with this Lease, shall be deemed to enlarge, limit, or otherwise affect the operation of this Lease.
- C. Non-Discrimination. Lessee shall not discriminate against any person because of race, creed, religion, color, sex, national origin or disability.
- D. Paragraph Headings. The paragraph headings, titles, and captions used in this Lease shall not be construed to interpret any of the terms or conditions hereof, but are inserted for convenience and reference only.
- E. Entire Agreement. This Lease and its exhibits contain the entire agreement between the parties as of the date executed concerning the subject matter hereof and supersedes all prior discussions, negotiations or agreements among the parties. The execution of this Lease has not been induced by either party, or any agent of either party, by representations, promises, or undertakings whatsoever between the respective parties concerning this Lease except those which are expressly contained herein.
- F. Governing Law and Forum. This Lease shall be construed in accordance with and governed by the laws of the State of Idaho and the parties consent to the jurisdiction of Idaho State Courts located in Ada County in the event of any dispute with respect to this Lease.
- G. Binding on Heirs and Successors. It is understood and agreed that all terms, covenants, and conditions hereof shall be binding upon any respective successors in interest of the parties.
- H. Severability. In the event any provision of this Lease shall be held invalid or unenforceable according to law, for any reason whatsoever, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired.
- I. License/Authorizations. Lessee shall be responsible for paying all fees for any license, permit or authorization that may be required from any other entities as may be required in the course of doing business as it relates to this Lease.

**EXHIBIT A  
SITE MAP**

**Air National Guard Military Lease  
T03S04E, T03S05E, T03S06E**



**EXHIBIT B  
EXISTING IMPROVEMENTS**

1. **None.**

DRAFT

## **EXHIBIT C SPECIAL TERMS AND PROVISIONS**

These lands would be used to conduct military maneuver training activities to meet DOD training requirements outlined in Field Manual (FM) 3-96, and to simulate combat conditions that soldiers and their units will face when deployed and in harm's way.

Annual training operations would generally occur from March through November and would not exceed 20 mechanized or armor companies, approximately 6,400 soldiers and 880 tracked and wheeled vehicles.

The leased area will not be used for any type of live fire operations. Force on force operations would only use blank fire and multiple integrated laser engagement system (MILES), or similar non-live fire systems for training purposes. Units operating in the area could remain overnight on established assembly areas or bivouac sites in order to conduct multi-day training events.

All military training activities conducted on IDL lands would comply with established standard operating protocols (SOP) and best management practices (BMP) outlined in IDARNG 350-12, DA pamphlet 385-63, and IDARNG pamphlet 100-1. In addition, the leased area would be actively managed in coordination with IDL for fire suppression, natural resources and cultural resources under Army Regulation (AR) 350-19, AR 200-1, and the IDARNG'S Integrated Natural Resource Management Plan (INRMP), Integrated Cultural Resource Management Plan (ICRMP) and associated resource management documents currently used for the OCTC.



**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE NATIONAL GUARD BUREAU  
AND  
BUREAU OF LAND MANAGEMENT  
FOR THE ENVIRONMENTAL ANALYSIS OF A RIGHT OF WAY FOR  
ACCESS TO PROPOSED LEASED MANEUVER TRAINING LAND  
ORCHARD COMBAT TRAINING CENTER**

**I. Parties**

This Memorandum of Understanding (MOU) establishes a formal agency relationship between the National Guard Bureau (herein NGB) (“Lead Federal Agency”), a joint activity of the Department of Defense (DoD), and the Bureau of Land Management, Idaho State Office (herein BLM) (“Cooperating Agency”), or together (“the Parties”).

**II. Preamble**

The NGB will prepare an Environmental Assessment (EA) under the National Environmental Policy Act (NEPA, 42 USC § 4321 – 4370f) for a proposed land lease near the Orchard Combat Training Center operated by the Idaho Army National Guard (herein IDARNG). The Idaho Department of Lands (herein IDL), a state agency of Idaho, owns a large parcel of land east of Simco Road in Elmore County, Idaho. The IDARNG proposes to lease approximately 14,300 acres of this IDL land to conduct military training. In order to access the proposed leased parcel, the IDARNG seeks to obtain from BLM a sixty foot wide right of way (ROW), 10.62 miles in length total, (Simco Road--5.62 miles and Crow Road--5 miles). See attached Figure. The ROW would cross the BLM lands within the Morley Nelson Snake River Birds of Prey National Conservation Center (herein NCA). The ROW would be used for the maintenance, upgrade, and construction of an access road and associated improvements connecting OCTC to the 14,300 acres IDL owned land. The lease of IDL land and ROW request will be analyzed as the proposed action in the NGB’s EA.

**III. Authority**

The BLM, as owner and manager of the NCA, has jurisdiction by law (see 40 C.F.R. §1508.15) and special expertise (see 40 CFR §1508.26) that qualifies it to support NGB's NEPA analysis as a NEPA cooperating agency.<sup>1</sup>

The relationship established through this MOU shall be governed by all applicable statutes,

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<sup>1</sup> Per 40 CFR §1508.5, “*Cooperating agency* means any federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment. The selection and responsibilities of a cooperating agency are described in § 1501.6. A state or local agency of similar qualifications or, when the effects are on a reservation, an Indian Tribe, may by agreement with the lead agency become a cooperating agency.”

regulations, and policies, including the NEPA implementing regulations (40 C.F.R. § 1500 – 1508); NCA enabling law (16 U.S.C. § 460iii-2); Army Regulation (AR) 200-1, *Environmental Protection and Enhancement* (13 December 2007); the 2011 Army National Guard NEPA Handbook; *Environmental Analysis of Army Actions; Final Rule* (32 C.F.R. Part 651); the Council on Environmental Quality's NEPA regulations (in particular, 40 CFR §§ 1501.6 and 1508.5); the BLM's planning regulations (BLM Planning Handbook), (43 C.F.R. §§ 1601.0-5, §1610.3-1, and § 1610.4), the BLM NEPA Handbook (H-1790-1), and the Department of the Interior NEPA regulations (43 C.F.R. § 46) and Manual (516 DM 2.5).

#### **IV. Purpose**

The purpose of this MOU is to designate the BLM as a NEPA Cooperating Agency in the preparation of the aforementioned EA, to describe responsibilities and procedures agreed to by the BLM and NGB; to provide a framework for cooperation and coordination between the agencies that will ensure the NEPA analysis is completed in a timely, efficient, and thorough manner; to recognize that the NGB is the Lead Federal Agency with responsibility for the completion of the NEPA analysis and the Finding of No Significant Impact (FONSI); and to describe the respective responsibilities, jurisdictional authority, and expertise of each of the Parties in the planning process.

The IDARNG, pursuant to Section 1-24 of AR 200-1, *Environmental Protection and Enhancement*, 13 December 2007, will support NGB's efforts to complete an EA for the proposed lease and use of military maneuver lands and the request of a BLM ROW to access such lands.

#### **V. Responsibilities**

The Parties together will:

- (a) Follow procedures necessary to analyze the potential environmental impacts of the proposed action in compliance with NEPA and other applicable laws.
- (b) Inform each other of the date, time, location, and purpose of major meetings involving designated representatives and/or third parties to discuss EA preparation.
- (c) Protect interagency deliberative communications and information exchanged pursuant to the MOU. To that end, the parties agree that the NGB will, after consultation with BLM, serve as the release authority under the Freedom of Information Act (FOIA) for those documents that reflect deliberative communications and information exchange. Documents that are independently created by each Party shall be subject to each agency's FOIA policies and procedures.
- (d) Jointly consult with the State Historic Preservation Office and other parties to comply with the requirements of Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) and jointly consult or conference with the U.S. Fish and Wildlife Service, as necessary, to meet the Agencies' responsibilities under Section 7 of the Endangered Species Act (16 U.S.C. § 1536), pursuant to 36 C.F.R. § 800.2(a)(2) and 50 C.F.R. § 402.07, respectively.

(e) The Parties agree to participate in good faith and make all reasonable efforts to resolve disagreements concerning this NEPA process. Where procedural or substantive disagreement may impede effective and timely completion of this NEPA analysis, the Parties agree to utilize the facilitation and conciliation procedures as described in Section VI.i.

(f) The Parties agree to comply with the schedule developed for this NEPA analysis, which includes dates for EA milestones and timeframes for Cooperating Agency's reviews and submissions.

(g) NGB and BLM agree to fund their own expenses associated with this NEPA analysis, except that the NGB may contract with the BLM for technical studies within its jurisdiction by law or special expertise. Should this occur, the terms of the contract may be captured in an amendment to this MOU as provided for in Section VII.b.

(h) Any additional provisions regarding responsibilities of the Parties to this NEPA analysis shall be incorporated into an amendment to this MOU as provided for in Section VII.b.

## 2. NGB Lead Federal Agency Responsibilities:

(a) Communicate the execution of this MOU throughout its chain of command working to complete tasks associated with the environmental analysis.

(b) Oversee all aspects of the preparation of the environmental analysis, including contracting.

(c) Independently consult with Indian Tribes in accordance with established protocols.

(d) Establish, with the assistance of BLM, a Joint Interdisciplinary Team (Joint ID Team), that:

- i. Meets as needed to monitor preparation of the environmental analysis;
- ii. Provides representatives from other cooperating agencies, if any, an opportunity to contribute to the preparation of the NEPA documentation;
- iii. Determines the appropriate level of public involvement, including locations and scheduled times for any public meetings;
- iv. Reviews comments received during the scoping process;
- v. Identifies action alternatives to be considered and associated effects;
- vi. Provides data in support of the analysis, including baseline data for the Affected Environment and information on past, present, and reasonably foreseeable future actions;

- vii. Determines the methodology to be used for environmental impact analysis;
- viii. Reviews and responds to comments regarding the Preliminary/Draft NEPA documents;
- ix. Prepares and distributes minutes of all meetings to Joint ID Team members for review and comment;
- x. Ensures that a cultural resources use permit is obtained before gathering information concerning cultural resources on BLM owned land in the project area per Sec. 302 (b) of P. L. 94-579, 43 U.S.C. 1732, Sec. 4 of P. L. 96-95, and 16 U.S.C., 470cc.

### 3. BLM Cooperating Agency Responsibilities:

- (a) Communicate execution of this MOU to the appropriate BLM offices and the Department of Interior;
- (b) Designate lead points of contact for the environmental analysis of implementing this proposed action;
- (c) Independently consult with Indian Tribes in accordance with established protocols;
- (d) Participate in the Joint ID Team;
- (e) Review proposed methods and procedures for identifying natural and cultural resources in support of the NEPA document before initiating field work on BLM administered lands;
- (f) Grant reasonable access to NGB and its consultants to BLM-administered lands within the project area in a timely manner to collect necessary baseline data;
- (g) Review results of natural and cultural resources field work and any reports prepared as a result of field work within ten business days;
- (h) Review and provide comments on the draft and environmental planning studies (e.g. cultural or species surveys, road design documents, etc.) prepared in support of the final environmental analysis in accordance with the project schedule;
- (i) Participate in scoping and public meetings, if conducted;
- (j) Review effects of alternatives, suggest mitigation measures, and provide written comments on working drafts of EA documents and supporting documents; and,
- (k) Assist in development of an administrative record.

## VI. Other Provisions

- (a) Nothing in this MOU alters, limits, or supersedes the authorities and responsibilities of either Party on any matter within their respective jurisdictions. Nothing in this MOU shall require either of the Parties to perform beyond its respective authority.
- (b) Nothing in this MOU shall require either of the Parties to assume any obligation or expend any sum in excess of authorization and appropriations available. Any endeavor involving reimbursement or contribution of funds between the Parties to this MOU will be authorized under a separate document, in accordance with applicable laws, regulations, and procedures.
- (c) Each Party retains all immunities and defenses provided by law with respect to any action based on or occurring as a result of this MOU.
- (d) The Parties agree not to utilize any individual or organization for purposes of plan development, environmental analysis, or Cooperating Agency representation, including officials, employees, or third party contractors, having a financial interest in the outcome of this NEPA analysis. Questions regarding potential conflicts of interest should be referred to NGB Judge Advocate Ethics Counselors for resolution.
- (e) Where the Lead Federal Agency and Cooperating Agency disagree on substantive elements of this NEPA analysis (such as designation of the alternatives to be analyzed or analysis of effects), and these disagreements cannot be resolved consistent with 40 C.F.R. § 1503.3, the Lead Federal Agency will include a summary of the Cooperating Agency's views in the Draft and Final NEPA documents. The NGB will also describe substantial inconsistencies between its proposed action and the objectives of state, local, or tribal land use plans and policies consistent with 43 C.F.R. § 1610.
- (f) BLM acknowledges that all supporting materials and draft documents may become part of the administrative record and may be subject to the requirements of the Freedom of Information Act (FOIA) and other federal statutes. BLM agrees to maintain the confidentiality of documents and deliberations during the period prior to the public release of this NEPA document including drafts.
- (g) The Parties acknowledge that the Lead Federal Agency and Cooperating Agency may sign one FOSNI together or sign separate FONSI's per their respective agency NEPA guidance. Should the Parties sign separate FONSI's, each party is responsible for the decisions made in their respective FONSI's.
- (h) The BLM's issuance of a ROW to IDARNG will be a separate Federal action. BLM intends to adopt the NGB's EA, per 40 C.F.R. § 1506.3, to serve as the environmental analysis for their ROW issuance.
- (i) Conflicting scientific evidence, if any, offered by the parties will be discussed in the NEPA document as long as such views are supported by credible scientific evidence. Designated representative on the Joint ID Team will make all reasonable efforts to informally resolve disputes related to the preparation of this NEPA analysis.

(j) If disputes cannot be resolved after 15 days following initiation of dispute resolution; either party may request elevation of the matter to the next level of authority for resolution by issuing a written statement of dispute. For BLM, the request will be elevated to the Four Rivers Field Manager, followed by the Boise District Manager, followed by the Idaho State Director. For NGB, the request will be elevated to the Chief, Installations and Environment Directorate, Army National Guard, followed by the Deputy Director of the Army National Guard, followed by the Director of the Army National Guard.

(k) NGB will retain the services of 3<sup>rd</sup> party NEPA contractors to assist with public involvement, data collection, environmental analysis, and NEPA document preparation. Unless otherwise specified in a project specific MOU amendment, the Cooperating Agency will communicate with the contractor only through NGB's representative. The Cooperating Agency acknowledges that the NGB retains the exclusive responsibility to authorize modifications to the 3<sup>rd</sup> party NEPA contract, and that the Cooperating Agency is not authorized to provide technical or policy direction regarding the performance of this contract.

(l) Each Party will designate a representative and alternate representative, upon initiation of this NEPA analysis, to ensure coordination between the Lead Federal Agency and the Cooperating Agency during the process. Each Party may change its representative at will by providing written notice to the other Party. Each Party's representative may be the same POC as respective Joint ID Team member.

## **VII. Administration**

(a) This MOU becomes effective upon signature by the authorized officials of the NGB and the BLM.

(b) This MOU may be modified or amended only by mutual agreement of the parties in writing and signed by each of the parties hereto.


(c) The NGB or the BLM may terminate this MOU by providing 45 days written notice to the other party, providing that they consult during this period to seek agreement on amendments or other actions that would avoid termination.

(d) Any documents or data exchanged between the Parties will not be released to a third party unless the designated representative of the party generating the document or data approves the release. Documents generated as result of this MOU shall become part of the official NGB record maintained in accordance with the applicable NGB Records Management policies.

**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE NATIONAL GUARD BUREAU  
AND  
BUREAU OF LAND MANAGEMENT  
FOR THE ENVIRONMENTAL ANALYSIS OF A RIGHT OF WAY FOR  
ACCESS TO PROPOSED LEASED MANEUVER TRAINING LAND  
ORCHARD COMBAT TRAINING CENTER**


**Signatures:**

**National Guard Bureau**

  
\_\_\_\_\_  
ERIK T. GORDON  
Colonel, GS  
Chief, Installations and  
Environment Directorate

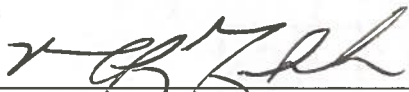
4 May 2018  
DATE

**Bureau of Land Management**

  
\_\_\_\_\_  
LARA DOUGLAS  
District Manager, Boise District  
Bureau of Land Management

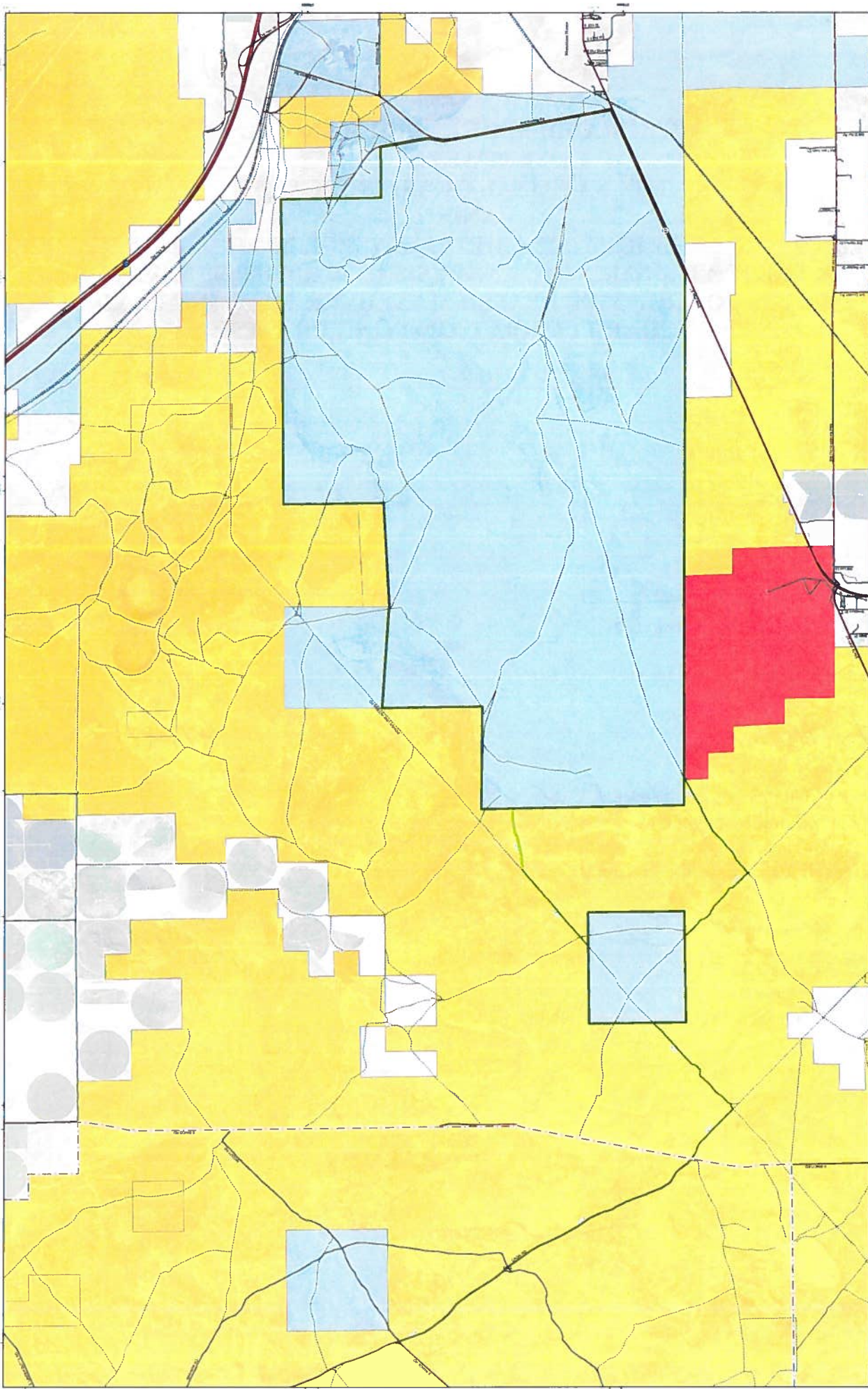
4/19/18  
DATE

**Concurring Party, Idaho National Guard:**

  
\_\_\_\_\_  
MICHAEL J. GARSHAK  
Brigadier General  
The Adjutant General/Commander, IDNG

12 May 2018  
DATE

# ORCHARD COMBAT TRAINING CENTER SIMCO EAST TRAINING AREA LAND OWNERSHIP



**Simco East Landownership Summary**  
 Current Boundary Location (near the southeast corner of  
 Proposed Simco East Boundary  
 Proposed Simco East Boundary (85% only) Area  
 Area from the Proposed Simco East Boundary  
 roughly 25 yrs and hereafter are for sale.  
 Proposed Simco East Boundary (Total  
 Proposed Simco East Boundary + this NCA, roughly  
 7% of 2014-15 Lands)

**Legend**

- Private Land
- National Forest Land
- National Conservation Area (NCA) Boundary
- Proposed Simco East Boundary
- Proposed State Boundary
- Proposed Simco East Boundary
- Proposed State Boundary

Scale 1:20,000



Imagery Source:  
 National Agriculture Imagery Program (NAIP), October 2015  
 U.S. Dept. of Agriculture, Farm Service Agency

UTM Zone 11 North Metric  
 North American Datum 1983 / WGS84  
 GIS Systems, Environmental Management Office, IDARNG  
 gishowman\Simco East Extension\MapDoc  
 29 March 2018



- 1 **Appendix F**
- 2 **Major Laws, Regulations, and Executive Orders**

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The following is a list of the major laws and executive orders that apply to the Proposed Action Alternative. Each summary expands on the law or executive order listed in Section 1.7 of the Environmental Assessment.

#### National Environmental Policy Act

Under the NEPA of 1969 and subsequent implementing regulations promulgated by the CEQ, any action conducted on federally-administered lands or action that utilizes Federal dollars, must be evaluated to determine if the Proposed Action Alternative might have significant economic, social, or environmental effects. The assessment must explore a reasonable range of alternatives and the associated potential environmental effects of the Proposed Action Alternatives. A FNSI can be signed if there are no significant impacts, less than significant impacts, or significant impacts that can be mitigated to less than significant impacts. If potentially significant effects are identified, the Agency (BLM) must consider these, including potential for avoidance or mitigation in issuing its ROD.

#### 32 CFR Part 651 (Environmental Analysis of Army Actions)

32 CFR Part 651 (Department of the Army [DA] 2002) provides policies, procedures, and responsibilities for integrating environmental considerations into Army planning and decision-making. It outlines NEPA compliance requirements of proposed Army actions.

#### Army Regulation (AR) 200-1 (Environmental Quality, Environmental Protection and Mitigation)

AR 200-1 (DA 2007) covers environmental protection and enhancement and provides the framework for the Army Environmental Management System. It implements federal, state, and local environmental laws and DoD policies for preserving, protecting, conserving, and restoring the quality of the environment. This regulation should be used in conjunction with 32 CFR 651, which provides Army policy on NEPA requirements, and supplemental program guidance, which the proponent may issue as needed to assure that programs remain current. This regulation mandates that the NGB Director and Army National Guard execute environmentally sustainable base operations support in compliance with applicable laws and regulations to support the Army's mission.

#### 2017 Training Authorization Memorandum of Understanding

In 2017, the Governor of Idaho, on behalf of the IMD, the Idaho State Director, and the BLM signed an MOU authorizing continued NG training activities on the public lands now known as the OCTC, with the following objectives:

- To continue military use of the public lands in the OCTC consistent with Section 4(e) of PL 103-64 (see below).
- To provide BLM and IMD clear operating procedures, responsibilities, and limitations for the use and management of the OCTC.
- To ensure the safety of the general public, BLM, and military units using the OCTC.
- To provide for the authorization and protection of IMD facilities in the OCTC.
- To provide for rehabilitation of areas disturbed by military training or military training-related fires.
- To provide a means to control unauthorized use of the OCTC.

## Endangered Species Act

The Endangered Species Act (ESA) requires all Federal agencies to ensure their actions do not jeopardize the continued existence of listed species or adversely modify designated critical habitat. Based on the unique management conditions of the OTA, the IDARNG could not work directly with the USFWS in regard to the ESA Section 7 consultation process. Rather, the IDARNG developed the “No effect” documentation on July 11, 2018 (Appendix M).

## Clean Water Act, Section 313

Section 313 of the Clean Water Act (CWA) of 1972 requires that “each department, agency, or instrumentality of the Federal Government having jurisdiction over any property or facility, or engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions in a like manner as any non-governmental entity.” The BLM is therefore required to comply with all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions with respect to the control and abatement of water pollution. The Idaho Department of Environmental Quality (IDEQ) is responsible for implementing the CWA in Idaho and has promulgated State water quality rules to meet this responsibility in IDAPA 58.01.02. Waters are designated as impaired when there is a violation of water quality criteria and are placed on the §303(d) list. Section 303(d) of the CWA requires states to develop water quality improvement plans, referred to as Total Maximum Daily Loads (TMDL), for water bodies that are not meeting their beneficial uses. A TMDL is only required when a pollutant can be identified and in some way quantified. The purpose of a TMDL is to set limits on pollutant levels, correct water quality impairments, and achieve beneficial uses of water bodies through attainment of water quality standards.

## National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) requires that prior to authorizing an undertaking, federal agencies must consider the effect of the undertaking on any properties eligible for or listed on the National Register of Historic Places (NRHP). Protection of historic properties (36 CFR 800) defines the process for implementing requirements of the NHPA, including consultation with the appropriate SHPO and the Advisory Council on Historic Preservation.

## Executive Order (EO) 13007—Indian Sacred Sites

EO 13007 (May 24, 1996) instructs federal agencies to promote accommodation of, access to, and protection of the physical integrity of American Indian sacred sites. Analysis related to this requirement is presented in Section 3.8.

## Executive Order 12898—Environmental Justice

EO 12898 (February 11, 1994) provides that each Federal agency, to the greatest extent practicable and permitted by law, make achieving environmental justice part of its mission by addressing, as appropriate, disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

## Executive Order 13186—Migratory Birds

EO 13186 expressly requires that Federal agencies evaluate the effects of Proposed Action Alternatives on migratory birds (including eagles) pursuant to NEPA “or other established environmental review process;” restore and enhance the habitat of migratory birds, as practicable; identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations; and, with respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service.

EO 13186 (January 10, 2001) directs Federal land management agencies to ensure management actions conserve and protect migratory birds consistent with existing migratory bird conventions; the Migratory Bird Treaty Act (16 U.S.C. 703–711); the Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d); the Fish and Wildlife Coordination Act (16 U.S.C. 661-666c), the ESA of 1973 (16 U.S.C. 1531–1544); and NEPA of 1969 (42 U.S.C. 4321–4347).

## Native American Tribal Consultation

The IDARNG is responsible under EO 13175, Consultation and Coordination with Indian Tribal Governments, and DoD Instruction 4710.02, DoD Interactions with Federally Recognized Tribes, to consult with federally recognized tribes on issues that directly involve military training activities that may affect cultural resources. Tribal coordination and consultation responsibilities are implemented under laws and EOs specific to cultural resources, termed “cultural resource authorities.” Other non-specific cultural resource regulations are termed “general authorities.” Cultural resource authorities include: the NHPA of 1966, as amended; the Archaeological Resources Protection Act of 1979 (ARPA); and the Native American Graves Protection and Repatriation Act of 1990, as amended (NAGPRA). General authorities include: the American Indian Religious Freedom Act of 1979 (AIRFA); NEPA; Federal Land Policy and Management Act of 1976; EO 13007-Indian Sacred Sites, and DoD Instruction 4710.02 - DoD Interactions with Federally Recognized Tribes (DoD 2006), within which the DoD Annotated American Indian and Alaskan Native Policy is a component” of DoD Instruction 4710.02. The Proposed Action Alternative complies with the aforementioned authorities.

## Federal Land Policy and Management Act (FLPMA)

FLPMA of 1976 mandates the BLM manage for multiple uses of Federal public lands. The FLPMA requires the BLM to execute its management powers under a land use planning process that is based on multiple use and sustained yield principles. The FLPMA provides for, but is not limited to, grazing on public lands, land sales, withdrawals, acquisitions, and exchanges.

## 43 CFR Part 2800 (Rights-of-Way under the Federal Land Policy and Management Act)

Federal agencies are given authority under FLPMA to grant ROWs for necessary transportation or other systems and facilities which are in the public interest and require use of public lands. BLM’s ROW program controls ROW on public lands to protect natural resources on public lands and adjacent lands (regardless of ownership) and promotes the use of ROW in common considering engineering and technological compatibility, national security, land use plans in coordination with other public and private entities.

## Cultural Resource Laws and Executive Orders

Federal agencies are required to consult with Native American tribes to “help assure (1) that federally recognized tribal governments and Native American individuals, whose traditional uses of public land might be affected by a Proposed Action Alternative, will have sufficient opportunity to contribute to the decision, and (2) that the decision maker will give tribal concerns proper consideration” (U.S. Department of the Interior, BLM Manual Handbook H-8120-1). Tribal coordination and consultation responsibilities are implemented under laws and executive orders that are specific to cultural resources which are referred to as “cultural resource authorities,” and under regulations that are not specific which are termed “general authorities.” Cultural resource authorities include: the NHPA of 1966, as amended; the ARPA of 1979; and the NAGPRA. General authorities include: the AIRFA (1979); NEPA (1969); FLPMA (1976); and EO 13007-Indian Sacred Sites. The Proposed Action Alternative is in compliance with the aforementioned authorities.

Southwest Idaho is the homeland of two culturally and linguistically related tribes: the Northern Shoshone and the Northern Paiute. In the latter half of the 19th century, a reservation was established at Duck Valley on the Nevada/Idaho border west of the Bruneau River. The Shoshone-Paiute Tribes residing on the Duck Valley Reservation today actively practice their culture and retain aboriginal rights and/or interests in this area. The Shoshone-Paiute Tribes assert aboriginal rights to their traditional homelands as their treaties with the United States, the Boise Valley Treaty of 1864 and the Bruneau Valley Treaty of 1866, which would have extinguished aboriginal title to the lands now federally administered, were never ratified.

Other tribes that have ties to southwest Idaho include the Shoshone-Bannock Tribes, Fort McDermitt Paiute and Shoshone Tribe, Burns Paiute Tribe, Confederated Tribes of the Warm Springs Reservation of Oregon and the Nez Perce Tribe. In 1867 a reservation was established at Fort Hall in southeastern Idaho. The Fort Bridger Treaty of 1868 applies to the Shoshone-Bannock Tribes.

### 1993 Public Law 103-64

The establishment of the NCA for the purpose of conserving, protecting, and enhancing raptor populations and habitats, and the scientific, cultural, and educational resources and values of the public lands in the conservation area. Among other things, PL 103-64 “the Act” sets forth provisions for the Reserve and NG use of the OCTC for training purposes. Specifically to:

- Authorize military use of the OCTC pursuant to the 2008 NCA RMP;
- Provide the IMD with continued long-term authorization, as required by DoD and NGB regulations, in order to allow for adequate amortization of developments and improvements;
- Provide for the continued use of the OCTC by the IMD at a level that is compatible with the protection for raptor populations and habitats, and the scientific, cultural and educational resources and values of the public lands in the NCA; and
- Provide a mechanism for subsequent review of the MOU and to provide an amendment procedure to implement mutually acceptable modifications.

### 2009 Omnibus Public Land Management Act (16 U.S.C. 7202)

As specified in the Omnibus Act of 2009, the Nation Landscape Conservation System (NLCS) was established in order to “conserve, protect, and restore nationally significant landscapes that have

outstanding cultural, ecological, and scientific values for the benefit of current and future generations.” The Act goes on to require that NLCS units be managed “in a manner that protects the values for which the components of the system were designated.”

#### BLM Manual 6100 – National Landscape Conservation System Management

Section 1.6 (J.4) - To the greatest extent possible, subject to applicable law, the BLM should, through land use planning and project-level processes and decisions, avoid granting new ROWs through NLCS units (the BLM does not have the authority to designate new ROW in designated wilderness). Subject to applicable law, the BLM shall exercise its discretion to deny ROW applications in NLCS units if the BLM determines that ROW proposals are: inconsistent with the authority that designated the unit or incompatible with the protection of the values for which the unit was designated, subject to a compatibility determination by the authorized officer for the affected NLCS units.

#### BLM Manual 6220- National Monuments, National Conservation Areas, and Similar Designations (Section 1.6 - Compatibility of Uses)

C.1. Site-specific activities in Monuments and NCAs will be managed in a manner that is compatible with the protection of the objects and values for which these areas were designated. Multiple uses may be allowed to the extent they are consistent with the applicable designating authority, other applicable laws, and with the applicable land use plan.

#### USDOI Department Manual (DM) 600 DM-6: Public Lands, Public Land Policy-Landscape Scale Mitigation Policy

This DM identifies the policy and provides guidance to bureaus and offices to best implement mitigation measures associated with legal and regulatory responsibilities and the management of Federal lands, waters, and other natural and cultural resources under the jurisdiction of the USDOI, including use of the best available science and landscape-scale approaches. This policy is intended to improve permitting processes and help achieve beneficial outcomes for project proponents, impacted communities, and the environment. In doing so, the Department will effectively avoid, minimize, and compensate for impacts to Department-managed resources and their values, services, and functions; provide project developers with added predictability, efficient, and timely environmental reviews; improve the resilience of our Nation’s resources in the face of climate change; encourage strategic conservation investments in lands and other resources; increase compensatory mitigation effectiveness, durability, transparency, and consistency; and better utilize mitigation measures to help achieve Departmental goals.





- 1 **Appendix G**
- 2 **BMPs and SOPs and Habitat Enhancement Requirements**

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Appendix G: Best Management Practices, Standard Operating Procedures, and Habitat Enhancement Requirements

Resource	SOPs/BMPs/Habitat Enhancement Requirements
Air Quality	<ul style="list-style-type: none"> <li>• During construction and operational activities, application of dust suppressants or use of operational controls would be used to prevent excess fugitive emissions in accordance with current and pending Idaho regulatory requirements, appearing in the Idaho Administrative Code Chapter 58-650, <i>Rules For Control Of Fugitive Dust</i>, through the use of compliance practices or products.</li> <li>• Air Quality air emissions inventory updated routinely and available to the public.</li> <li>• Manage training areas to limit repeated impacts to soils (lane rotations, designated dig areas, dust suppression activities (see above), application of water or other environmentally friendly suppressants...)</li> <li>• Annual evaluation of toxic release inventory (per EPCRA), report available to the public.</li> <li>• All vehicles used outside the continental United States undergoes a decontamination protocol prior to any use within the US.</li> <li>• All engineering activities would be temporary. All engineering training sites would be graded, seeded, and a soil tackifier used to retain soil structure.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• Training activities resulting in high decibel levels would be restricted to daytime use to the extent possible to limit or reduce noise impacts to adjacent land owners.</li> <li>• Construction activities would be limited to daytime hours to minimize potential noise impacts.</li> <li>• Construction equipment mufflers would be properly maintained and in good working order.</li> <li>• Contact list of adjacent residents (pre-contact prior to training activities.)</li> <li>• Implement recommendations identified in the Idaho Statewide Operational Noise Management Plan (SONMP) and any subsequent amendments.</li> <li>• IDARNG will work with Elmore County zoning and planning departments to address noise complaints and land use incompatibilities.</li> </ul>
Soils and Geology	<ul style="list-style-type: none"> <li>• Soil stabilizing measures (seeding, use of geo-textiles, hydro-mulch, etc.) would be taken to limit or reduce loss of top soil associated with soil disturbing actions during infrastructure construction (roads and assembly areas).</li> <li>• Construction and military training activities would not occur during times of soil saturation. If such equipment creates ruts in excess of 4 inches, the soil will be deemed too wet to adequately support construction and military equipment.</li> </ul>

Resource	SOPs/BMPs/Habitat Enhancement Requirements
	<ul style="list-style-type: none"> <li>• All engineering activities would be temporary. All engineering training sites would be graded, seeded, and a soil tackifier used to retain soil structure.</li> </ul>
Invasive Plant Species	<ul style="list-style-type: none"> <li>• Use of on-site materials to reduce establishment of new invasive or noxious weed species associated with off-site materials.</li> <li>• Control measures and site maintenance (mechanical, biological, chemical, or prescribed burns) would be conducted to limit or reduce the establishment or spread of invasive or noxious weed species.</li> <li>• Vehicles coming to the OCTC from outside the Treasure Valley would undergo pressure washing at the Mobilization and Training Equipment Site (MATES) facility prior to entering and leaving the OCTC.</li> <li>• Annual monitoring by EMO and ITAM staff.</li> </ul>
Vegetation	<ul style="list-style-type: none"> <li>• IDARNG would continue to conduct pre-construction/operational surveys prior to soil disturbing activities to avoid special status plant species.</li> <li>• The IDARNG would continue to protect slickspot peppergrass (<i>Lepidium papilliferum</i>) (LEPA) by implementing the management guidelines outlined in the latest INRMP.</li> <li>• All new ROWs actions granted by the BLM require that the IDARNG have a net benefit on the resources of the NCA by increasing the overall amount and condition of raptor habitat (Enhancement SOP).</li> <li>• All off-limits sites, including the two Davis' peppergrass-occupied playas, would be visibly delineated with Seibert stakes and/or fenced, and integrated in the IDARNG's Joint Battle Command Platform (JBCEP).</li> <li>• LEPA/LEDA planting buffers (native species)</li> <li>• Use of BLM/IDL approved seed mixes, including non-native desirable species.</li> <li>• Incorporate OCTC management and monitoring program for area (INRMP).</li> <li>• Construction and military training activities would not occur during times of soil saturation.</li> <li>• Implementation of SOPs related to ITAM and Facilities programs to use a variety of methods to restore training areas as needed.</li> </ul>
Wildlife	<ul style="list-style-type: none"> <li>• Pre-construction surveys and grubbing during non-nesting periods would be conducted to avoid impacts to special status species, raptors, and migratory bird species.</li> <li>• Annual monitoring is conducted on all training ranges. In the event that an occupied nesting site is identified within the training areas or associated structures, the site would be identified and military personnel would work with the EMO staff to take appropriate measures.</li> <li>• All new ROWs actions granted by the BLM require that the IDARNG have a net benefit on the resources of the NCA by increasing the overall amount and condition of raptor habitat.</li> </ul>

Resource	SOPs/BMPs/Habitat Enhancement Requirements
	<ul style="list-style-type: none"> <li>• Incorporate OCTC wildlife management and monitoring program for area.</li> <li>• All off-limits sites, including high-value shrub habitat would be visibly delineated with Seibert stakes and integrated in the IDARNG's Joint Battle Command Platform (JBCP).</li> </ul>
Cultural Resources	<ul style="list-style-type: none"> <li>• All culturally sensitive or known areas with cultural artifacts would receive appropriate protection as determined by the IDARNG archaeologist during construction of the facilities, as well as during any training activities thereafter.</li> <li>• Consistent with IDARNG policies contained in the latest ICRMP, all construction sites would be surveyed for cultural resources prior to and during construction to avoid the potential for any impacts to cultural sites.</li> <li>• Construction areas will be carefully selected to avoid known cultural resources.</li> <li>• Existing high-value cultural sites would be fenced and listed as off limits.</li> <li>• All off-limits sites would be visibly delineated with Seibert stakes and/or fenced (see below) and integrated in the IDARNG's Joint Battle Command Platform (JBCP).</li> <li>• To protect cultural sites, 10-foot metal poles with Seibert stakes on top will be placed every 25 feet around a 50 meter buffer outside each of the existing high-value cultural sites. The areas would be designated as off limits on training maps and highly visible signage will be posted every 25 feet around the buffer.</li> <li>• In the case of an inadvertent discovery of archaeological resources or human remains as a result of ground disturbance, IDARNG would implement the SOP for the inadvertent discovery of cultural materials as defined in the ICRMP.</li> <li>• Pursuant to 43 CFR 10.4(b), the permittee must notify the BLM Authorized Officer, by telephone and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2) on Federal land. Pursuant to 43 CFR 10.4 (c), the permittee must immediately stop any ongoing activities connected with the discovery and make a reasonable effort to protect the discovered remains or objects. Operation and maintenance activities would not resume in the identified area until notified by the BLM Authorized Officer to proceed.</li> </ul>
Public and Occupational	Fire Prevention and Suppression

Resource	SOPs/BMPs/Habitat Enhancement Requirements
<p>Health and Safety</p>	<ul style="list-style-type: none"> <li>• The IDARNG would continue to implement its fire management program, which would respond to any fires that might occur (Wildland Fire Plan).</li> <li>• Fire assets to be on-site during all training activities.</li> </ul> <p>Public Safety</p> <ul style="list-style-type: none"> <li>• Safety and security at the proposed military facilities would be consistent with IDARNG security procedures. Appropriate signage and barriers would alert the public of construction activities related to the Proposed Action and any traffic pattern changes.</li> <li>• The IDARNG would maintain at least one lane for public access and emergency use during any construction activities affecting public roads/access.</li> <li>• Simco East Crossing procedures will require the following: designated Soldiers will be flaggers to pause traffic while heavy vehicles cross Simco Road; Signs will be placed on the road reading, “Flaggers Ahead, Use Caution”; all military crossing will be stopped when there is public use of Simco Road and military traffic will be allowed to continue once nonmilitary vehicles have passed.</li> <li>• Prior to training, units going through lanes training will equip vehicles with Multiple Integrated Laser Engagement System (MILES). Upon completion of training, MILES will be de-installed prior to departure from the training facility.</li> </ul> <p>Occupational Health and Safety (OSHA)</p> <ul style="list-style-type: none"> <li>• OSHA requirements and other applicable worker safety regulations would be followed during project construction and operation. Appropriate measures would be taken to limit unauthorized persons from accessing the area during construction.</li> </ul>
<p>Hazardous and Toxic Materials/Waste</p>	<ul style="list-style-type: none"> <li>• Safety precautions would be taken by construction crews to minimize the potential for a hazardous spill. Under current procedures, all spills, regardless of size, are immediately reported to the Orchard Range Control. The responsible unit works to contain the spill until personnel from Range Control or the Environmental Management Office arrive (ANL EAD 2004).</li> <li>• Annual evaluation of Toxics Release Inventory (per EPCRA)</li> <li>• Individual units will implement hazardous materials and waste protocol(s) in accordance with Federal, state, and local regulations.</li> <li>• All waste shall be removed from the construction site at the end of each day. “Waste” means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, as and equipment that area a result of construction activities.</li> </ul>

## **Standardized Enhancement Protocol for the Idaho Army National Guard on Bureau of Land Management (BLM) Lands within the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA)**

### **Introduction:**

The Army National Guard (ARNG), as a participant in the Total Army Force, has a federal mission to provide trained units that are available for active duty in time of war or national emergency. The Idaho Army National Guard (IDARNG) has a state mission to provide military units that are organized, equipped, and trained to function when necessary to protect life and property, and to preserve peace, order, and public safety, under competent orders from authorities of the State of Idaho.

The IDARNG has conducted their military training operations in the area associated with the Orchard Combat Training Center (OCTC), formerly known as the Orchard Training Area (OTA), for more than 70 years (Exhibit A). Currently, the OCTC is designated as a Brigade-level training center and mobilization site for the National Guard (NG), and is found completely within the boundaries of the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA).

In 1971, the Snake River Birds of Prey Natural Area was established by Public Land Order 5133 to protect one of the densest known nesting populations of raptors in North America. As a result of Public Land Order 5133, the OCTC training boundary at the time was considerably reduced. During the following years, the Bureau of Land Management (BLM) conducted a research program to study habitat needs of raptors and determined the importance of foraging habitat on bench lands north of the Snake River Canyon. Based on this research, the Snake River Birds of Prey Area was established by Public Land Order 5777 in 1980. On August 4, 1993, Congress enacted Public Law 103-64, which provided permanent protection to the area, now known as the NCA. However, section 1(B) of the Act specifically provides for “continued military use, consistent with the requirements of section 4(e) of this Act, of the OTA by reserve components of the Armed Forces”.

Management responsibility for the NCA resides with the BLM, Boise District Office and Four Rivers Field Office (NCA Management Area). However, under PL 103-64, use of the OCTC by the IDARNG as a military training center is authorized under a Memorandum of Understanding (MOU) between the BLM and the Idaho Military Division. The current OCTC Training MOU was signed in 2017. Continued authorization of military training within the OCTC is managed under the BLM’s 2008 Resource Management Plan (RMP), and the impacts associated with this training were assessed in an Environmental Impact Statement (EIS) (DOI 2008). The IDARNG manages the natural resources of OCTC under the 2013 Integrated Natural Resource Management Plan (INRMP).

### **Enhancement- Background**

Based on the NCA’s designating legislation, the BLM identified that authorization of rights-of-way (ROW) within the NCA require a net benefit be achieved for the resources (natural or cultural) of the area (i.e., enhancement). As the IDARNG’s mission is dynamic in nature, changes in infrastructure components are critical for the long-term success of the mission, which

require the ability to amend existing ROW and authorization of new ROW. Per the 2017 Training MOU Section VII.(A)(16), the IDARNG is required to:

Obtain appropriate BLM authorization prior to construction of facilities, structures, or roads on public lands in the OCTC. Conduct compensatory mitigation and enhancement associated with each new ROW approval per a mutually agreed process.

In order to address these requirements, the BLM and IDARNG resource staffs have developed a standardized, quantitative process (see Impact and Enhancement Calculation Process below) to delineate the area of effect and determine the required enhancement acreage needed to off-set permanent impacts and achieve a net benefit for resources within the NCA. This quantitative process would be used as the foundation for the development of project-specific enhancement plans (PSEP), outlined on page 22, to address all new IDARNG ROW's authorized after January 1, 2016.

The use of enhancement as a means to mitigate construction and other similar impacts to the SRBOP's resources, objectives, and values, is consistent with the BLM's management responsibilities under the Federal Land Policy and Management Act (FLPMA), 2008 RMP, and P.L. 103-64. The BLM's policy manual on the management of National Conservation Areas (NCA; Manual Section 6220) also requires mitigation for impacts from rights-of-way (ROW). This mitigation standard of net benefit would comply with P.L. 103-64's requirement to enhance the resources, objects, and values of the.

### **Enhancement- Impact and Enhancement Calculation Process**

All new ROW applications submitted by the IDARNG within the NCA will utilize the following Impact and Enhancement Calculation Process (IECP) to quantify impacts to raptor habitat in the NCA. Raptor habitat and associated prey habitat was identified as a suitable surrogate for quantifying impacts to the NCA. Specifically, the loss of habitat would equate to an adverse effect (debit), and the enhancement or restoration of habitat would equate to beneficial effect (credit) to raptor populations. The overall impact of these effects are directly related to the type and condition of habitat affected by the action, i.e. construction, rehabilitation, or enhancement. The IDARNG will use the process below to calculate the associated debit and credit for any ROW authorization that impacts raptor habitat in the NCA.

Site/community delineations and associated calculations will use the best available data. Currently, the 2017 NCA Vegetation Map developed by Boise State University's Geospatial Lab would be used as the primary site reference for quantifying adverse impacts and beneficial effects based on acres of vegetation classes affected by construction or enhancement activities. The map would delineate the affected area based on the community types outlined in table 1. As the vegetation map is a model-based resource it will change over time, and site-specific ground-based mapping may also be used to amend the accuracy of the map.

The following steps will be taken to calculate the project debit or site impact score (SIS):

- The project footprint (permanent loss of habitat) would be overlaid on the vegetation map. The project over lay would identify the amount and type of each condition class (Table 1) affected by the proposed action. For example, a linear impact such as a trench



would be depicted with a center line. The impact area (debit) would be determined based on the proposed width of the trench, with an additional 5 meter buffer added, i.e. a one meter wide trench with buffer would be 11 meters wide, or 5.5 meters from center. This would be multiplied by the length to determine the total area affected.

- For each delineated condition class present, the habitat value (Table 1) would be multiplied by the number of acres permanently affected by soil disturbing activities.
- The calculated individual condition classes, based on the habitat value, are summed to determine the SIS.

The proposed enhancement site would be selected based on a number of variables including but not limited to: accessibility; site condition (vegetation, rocks, topography...); existing infrastructure (fences, roads, water...); proximity to recreational sites; precipitation; and other factors. The final site location would be identified through a coordinated process between the BLM and IDARNG.

Once an enhancement site, or sites, have been identified, the same calculation process used for the SIS would be used to determine the current enhancement site score (ESS-Baseline) for the site. The amount of enhancement credit received for the site is based on the change in condition classes (Table 1) for a specified area, e.g., conversion of one acre from Shrubland/Invasive Annual Grasses (SX) to Early-seral Native Shrubland /Grassland (NSG) would result in a 0.2 enhancement credit per acre. The proposed change in condition class would be identified and quantified, using the same process as the SIS to determine the proposed enhancement site score (ESS-Proposed). The difference between the ESS-Baseline and ESS-Proposed is the Net Enhancement Score (NES). In order to achieve a net benefit for the NCA, the NES must be greater than the SIS, i.e. exceeding baseline conditions requires a habitat restoration ratio greater than 1:1.

**Site Impact Score (SIS) = (CC1 (acres) + CC2 (acres) + CC3 (acres)...) )**

**Enhancement Site Score (ESS-Proposed) = CC1(acres)+ CC2(acres)+ CC3(acres)...**  
**-Enhancement Site Score (ESS-Baseline) = CC1(acres)+ CC2(acres)+ CC3(acres)...**  
**Net Enhancement Score (NES)**

**NCA Net Benefit = NES > SIS**

**Table 1. IECP Condition Class Conversion Factors**

Condition Class (CC)		Canopy Cover of Primary Components (%)			
		Sagebrush	Invasive Annual Grasses	Other	Habitat Value
1	Ecological Potential (EP) Shrub- Veg Map	≥15	< 50	native perennial grass > seeding	1.0
2	Early-seral Native Shrubland /Grassland (NSG) Native Grasslands- Veg Map	< 15	< 50	native perennial grass > seeding	0.8
3	Shrubland/Invasive Annual Grasses (SX) Shrub (site data)- Veg map	≥ 5	≥50	NA	0.6
4	Non-native Seeding (NNS)	< 15	< 50	seeding > native perennial grass	0.4
5	Invasive Annual Grassland /Forbs (X)	< 5	≥50	NA	0.2
6	Facility/Developed Sites BG- Veg Map	0	0	NA	0.0

*Gateway West Final SEIS and Proposed Land Use Plan Amendments for Segments 8 and 9, Idaho: Appendix K – Compensatory Mitigation Framework for the SRBOP*

### **Example: Impact and Enhancement Calculation Process**

The following is an example of the IECP. Figure 1 is the proposed action area with the delineated amount of area affected, including the 5 meter buffer. Figure 2 is the proposed enhancement site, with the area delineated by existing condition classes. The calculations for the SIS, ESS-B, ESS-P, and NES are found below. The overall net project is (15.97:17.03), which exceeds the 1:1 required ratio; therefore, there is a net benefit to the NCA.

$$\text{SIS:} \quad 0.33(0) + 12.63(0.2) + 11.06(0.8) + 4.65(1.0) = 15.97$$

$$\text{ESS-B: } 0.00(0) + 92.80(0.2) + 15.40(0.8) + 52.40(1.0) = 83.28$$

Based on the SIS and ESS-B, the proposed net enhancement (difference between ESS-P and ESS-B) must exceed 15.97 to result in a net enhancement for the NCA. For this example, we propose to convert 50 acres of X to NSG and 15 acres of NSG to EP. The associated ESS-P and NES score is:

$$\text{ESS-P:} \quad 0.00(0) + 42.8(.2) + 65.40(.8) + 52.40(1.) = 113.28$$

$$\text{Corrected: ESS-P:} \quad 0.00(0) + 42.8(.2) + 50.40(.8) + 67.40(1.) = 116.28$$

$$\text{NES:} \quad 116.28 - 83.28 = 33.00$$

$$\text{Net Enhancement Score: } 33 - 15.97 = 17.03$$

NES > SIS (ratio exceeds 1:1)

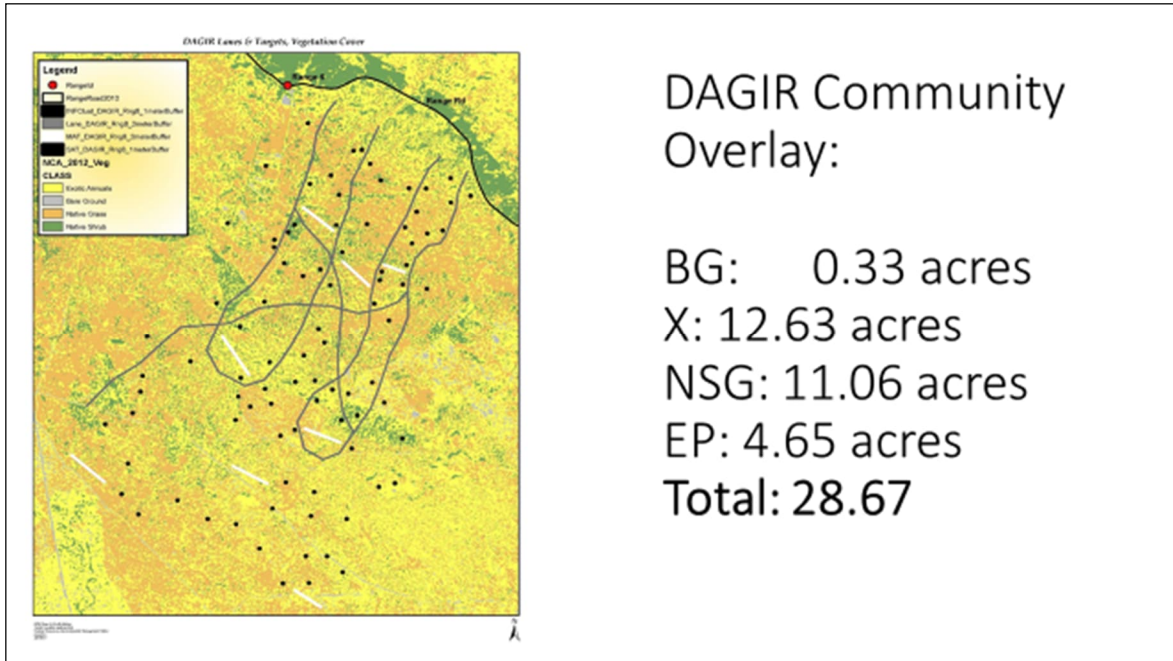


Figure 1: Proposed Action Overlaid on Vegetation Map.

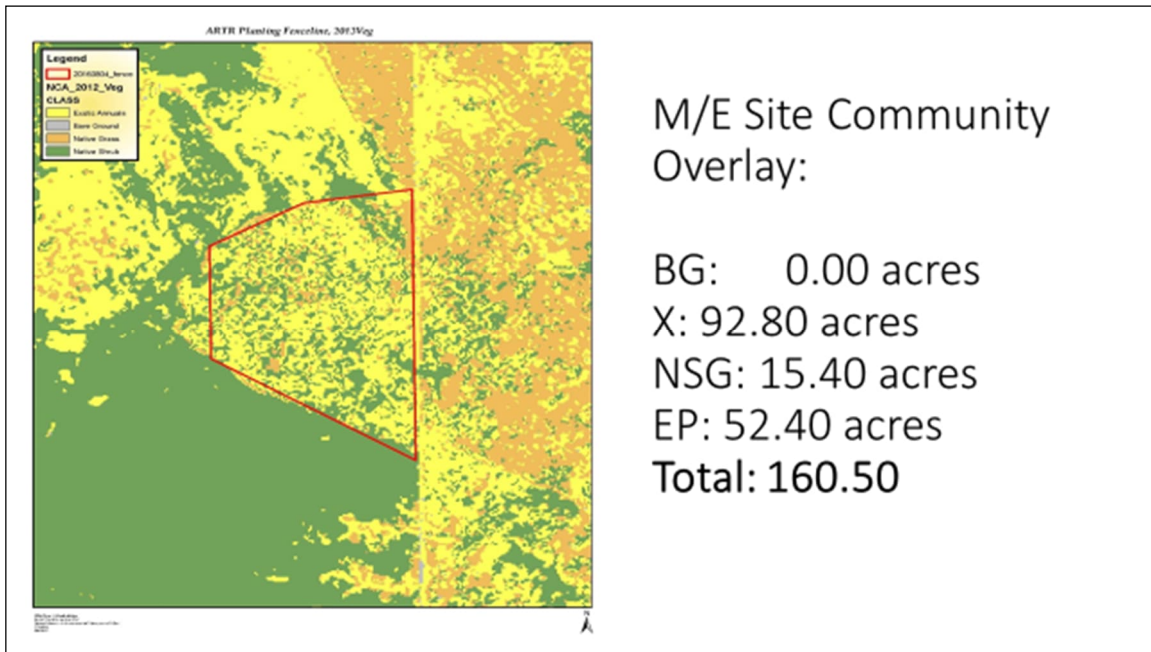


Figure 2: Proposed Enhancement Site with Vegetation Map.

The IECP establishes a logical and transparent approach to assessing baseline conditions as they apply to raptor habitat within a defined area of the NCA and provides a simple method for calculating the enhancement required to achieve a return to or exceedance of baseline raptor habitat conditions in the NCA.

The process assumes all short term impacts are successfully mitigated within the project footprint, and all permanent impacts are successfully addressed through habitat restoration treatments (see below) at a defined location outside the project footprint. All aspects of the treatment, monitoring, and success criteria for both on-site and off-site actions would be outlined in a PSEP. See example format of the PSEP below on page 22.

Per BLM requirements, the proposed enhancement action(s) outlined in the IECP must meet the defined success criteria, or trending toward it, within a defined timeframe. In the event that the action is unsuccessful, a mutually-agreed upon alternative action will be developed and implemented using the same planning process used to develop the original IECP. Enhancement actions are expected to be maintained for an amount of time equal to the life of the proposed action, or until such time the BLM deems the impact successfully mitigated/enhanced. If success thresholds are not being met due to natural disturbances or phenomena such as drought, infestations of native (or trespass?) herbivores, or wildfire with an ignition not attributable to IDARNG activities, BLM and IDARNG will assess conditions and re-set success criteria to reflect enhancement goals that can reasonably be met within 5 to 10 years under the new/disturbed conditions.

## **Project-Specific Enhancement Plans (PSEP)**

Project-specific enhancement plans will be developed through a collaborative process between IDARNG and the BLM staff. All PSEP will summarize the proposed action (including the purpose and need) in sufficient detail to give the reader “big picture” of the project, i.e. a 35% construction diagram within a defined area would be sufficient as it is not possible to have a 100% design feature under NG construction procedures. The priority of the enhancement plan is to identify and define the proposed action in sufficient detail to off-set impacts and result in a net enhancement to the NCA. The enhancement plan will follow the following format:

- 1.0 Introduction
- 2.0 Proposed Action Summary
- 2.1 Purpose and Need
- 2.2 Location (TRS) with Summary Maps
- 2.3 Site Summary (Natural and Cultural Resources)
- 2.4 Impact Summary (Quantitative)-Vegetation Map Overlay
- 3.0 Proposed Enhancement Plan
- 3.1 Location (TRS) with Summary Maps
- 3.2 Site Summary (Natural and Cultural Resources)
- 3.3 Baseline Summary (Quantitative)-Vegetation Map Overlay
- 3.4 Proposed Site-specific Enhancement Action
  - Tools and Methods
  - Timeline
  - Maintenance Actions
  - Monitoring Protocol (Baseline and After-Action)
  - Defined Success Threshold
  - Adaptive Management Actions/Process
  - Others As Needed
- 3.5 Enhancement Summary – IECP
- 4.0 References

### **Habitat Restoration Treatments**

Habitat restoration treatments would primarily be conducted within MA 1 because the 2008 RMP identifies this area as having the highest probability of restoration success. Treatment sites should include, to the extent possible, fuel control or wildland fire suppression measures, and fencing to provide durability for treatment sites.

Prioritization of restoration treatments within MA 1 should be in areas where:

- Treatments would provide the best connectivity between existing shrub communities.
- Treatments would increase the resistance/resilience of *Lepidium papilliferum* (LEPA) habitat.
- Equipment and personnel can reasonably access the site.
- Perennial native and non-native vegetation (seeding) exist and provide stable ecological conditions that facilitate restoration success.
- Existing ongoing restoration and research demonstration projects can continue to be leveraged or new, easily accessible projects can be developed.
- Sites have the ability to achieve EP or NSG (i.e., the desired future condition (DFC) for raptor habitat).

It should be noted that, depending on initial condition class, it may take multiple treatments to achieve the DCF for raptor habitat. All enhancement measures should be well defined and resilient to disturbance, to the extent possible, for the duration of the proposed project impacts.





- 1 **Appendix H**
- 2 **Biological Resources Reports**

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**APPENDIX H:**  
**Simco East Biological Survey**  
**Reports**

Idaho Army National Guard Environmental Management Office

# Simco East

Biological survey

Prepared by Zoe K. Tinkle and Kevin S. Warner  
23 February 2017

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## Introduction

The purpose of this document is to summarize results from biological surveys conducted on approximately 46,000 acres of Idaho Department of Lands (IDL) and Bureau of Land Management (BLM) lands in southwestern Idaho (Figure 1). The majority of areas surveyed (33,727 acres, 74%) were located within the boundaries of the Morley Nelson Snake River Birds of Prey National Conservation Area (BOPNCA). Surveys were conducted by Idaho Army National Guard (IDARNG) Environmental Management Office (EMO) and Ecosystem Sciences personnel in the spring and summer of 2016. This report summarizes findings by only the IDARNG EMO survey efforts. For a full summary of Ecosystem Science's findings, please refer to the "Natural Resources Baseline Inventory" report.

## Methods

### Walking surveys

IDARNG field technicians used a randomly generated grid of survey points at 685m spacing (see "USGS Cooperator Report") to determine start points for walking visual encounter surveys.

Technicians used a Trimble Nomad ® GPS to navigate to start points and searched for fauna and special status botanical species while walking meander-style transects between each randomly generated point. A track line was collected for each transect to track survey effort, and a location was recorded at each species observation using the GPS. All walking surveys were done during the day between the hours of 1400 and 2100.

### Driving surveys

Driving surveys were conducted the same day as the walking surveys and were in the vicinity of the walking survey points. Driving surveys were conducted at night, between the hours of, 2100 and 0100, to observe species more active at night, particularly Black-tailed jackrabbits (*Lepus californicus*). During each driving survey two to three observers used remote-control, swivel spot lights mounted on the top of the truck to search. Technicians recorded a track line with a Trimble Nomad ® GPS to track survey effort, and a location was recorded for all species observations.

### Vegetation points

At each survey start point, field technicians identified a 20m x 20m area with the same contiguous dominant vegetation (estimated visually). A location was recorded at the center of the 20m x 20m area using a Trimble Nomad ® GPS and the dominant vegetation type was recorded.

### Small mammal trapping

Each night, after the conclusion of the walking survey and before the nighttime driving survey, up to 40 large (16x5in) or medium (10x4in) Sherman small mammal traps were set in an approximate 10m x 10m grid. Traps were baited with a peanut butter and oats mixture. Traps were open for no more than four hours (2100-0100). Trapped individuals were released at the site of capture. Trapping was covered under the IDARNG's Idaho Fish and Game collection permit (#890328).

### Bat acoustic surveys

Surveys were performed by IDARNG personnel from 25 May to 4 August 2017 using standard bat acoustic survey protocols. All bat surveys included one Wildlife Acoustics Song Meter SM2 with a cabled SMX-U1 Microphone mounted horizontally 3 meters above ground level on an aluminum pole. At each survey point, one acoustic recording unit was deployed late afternoon and retrieved shortly after midnight. Each survey point received one recording night. Acoustic data was recorded onto standard 64GB SDXC1 memory cards, transferred to office laptop and analyzed with Wildlife Acoustic Kaleidoscope Pro call identification software. Additional call identification (when necessary) involved hand verification using Sonobat 3.2.0 Great Basin and/or Analook V4.2g software.

### Incidentals

Any observations not made in the aforementioned survey categories were considered incidental observations. Technicians were asked to record a GPS location for any migratory bird, raptor, and special status species that occurs in the survey area.

## **Overall Survey Effort**

A total of 10 technicians conducted surveys from 26 May to 13 July, 2016 for a total of approximately 300 effective survey hours. Overall, technicians covered approximately 476 linear kilometers during walking surveys and approximately 248 linear kilometers during driving surveys (Figure 1). Assuming a 10m search width for walking surveys, 1,176 acres were searched, and assuming a 50m search width for driving surveys, approximately 3,064 acres were searched for a total of 4,240 acres searched (~10% of total acreage).

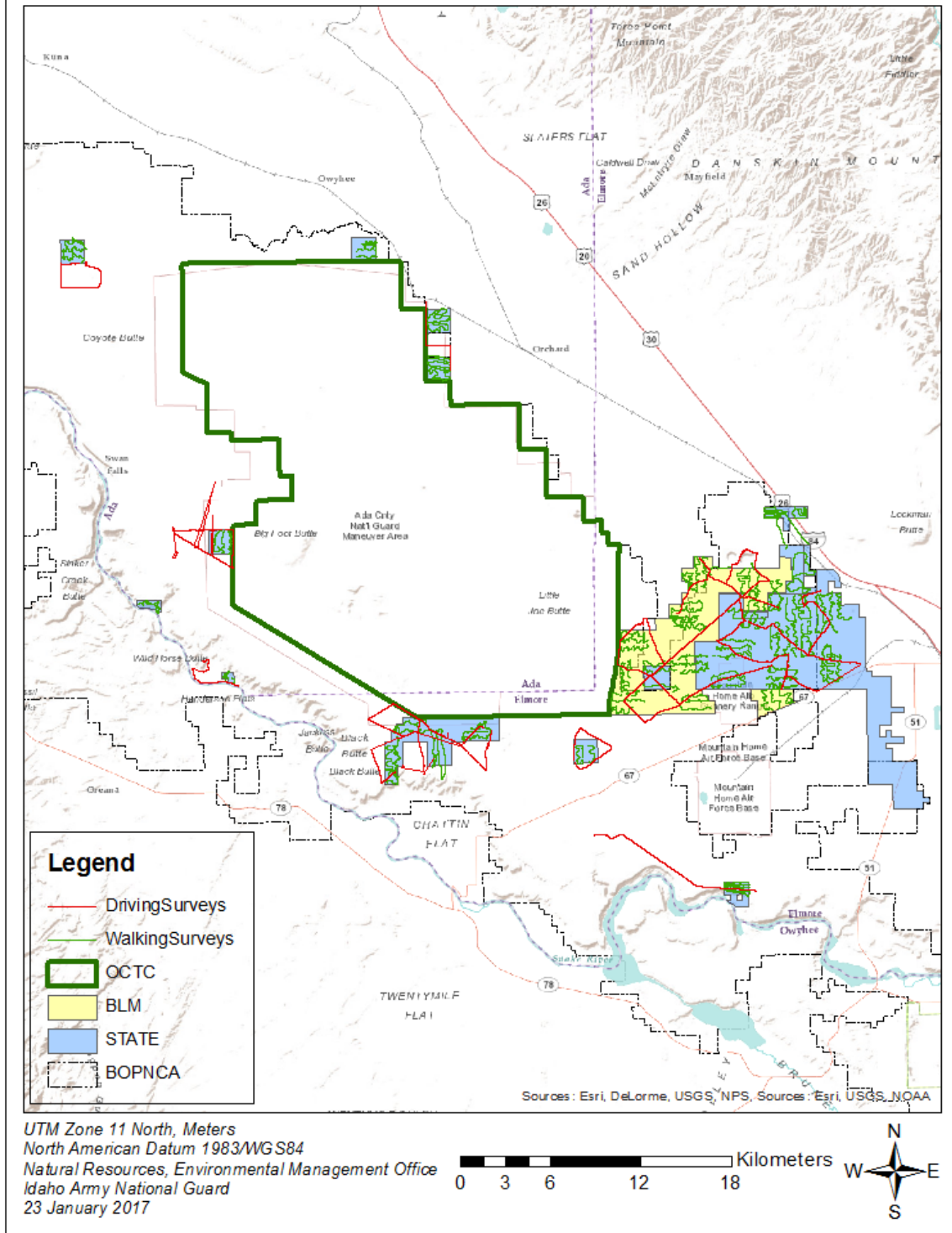
A combination of daytime and nighttime surveys were performed including herp visual surveys, small mammal trapping (night), raptor visual surveys (driving), spotlight surveys (driving), and acoustic bat monitoring. Over 2,000 observations were made. For total effort of other surveys, see each section below.

For a full description of a separate survey effort on the same area conducted by Ecosystem Sciences, see their report “Natural Resources Baseline Inventory.”



# 2016 Land Exchange- Survey Effort

Orchard Combat Training Center, Idaho



**Figure 1.** Survey effort of designated IDL (blue) and BLM (yellow) parcels conducted by IDARNG EMO staff in 2016. Walking surveys are depicted in green and driving surveys in red.

## Flora

### Vegetation Points

A total of 51 vegetation points were recorded. The top three most dominant vegetation types were Sandberg’s bluegrass (*Poa secunda*), cheatgrass (*Bromus tectorum*), and Wyoming big sagebrush (*Artemisia tridentata wyo.*; Table 1, Figure 2).

These points were taken to use as reference and training for aerial vegetation imaging, not for an overall representation of vegetation community composition in each parcel surveyed. For a more accurate estimate of community composition, see the Ecosystem Sciences “Natural Resources Baseline Inventory” report or the IDARNG vegetation map (2016).

**Table 1.** Summary and distribution of 20m x 20m dominant vegetation points.

Common Name	Scientific Name	Acronym	Total Points	Parcels
Wyoming big sagebrush	<i>Artemisia tridentata wyo.</i>	ARTR	10	B2; B4; S20; S21; X2
Forage kochia	<i>Bassia prostrata</i>	BAPR	1	B2
Cheatgrass	<i>Bromus tectorum</i>	BRTE	11	B2; S18; S20; S22; X1
Yellow rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	CHVI	8	B2; B5; X2
Annual wheatgrass	<i>Eremopyrum triticeum</i>	ERRE	1	S18
Exotic annual	Mix, <i>Sisymbrium altissium</i>	EXAN	4	S18; X2
Winterfat	<i>Krascheninnikovia lanata</i>	KRLA	1	S18
Basin wildrye	<i>Leymus cinereus</i>	LECI	2	S1
Playa	N/A	Playa	1	X2
Sandberg’s bluegrass	<i>Poa secunda</i>	POSE	12	B2; S8; S18; X2
<b>TOTAL</b>			<b>51</b>	

### Special Status Species

A complete botanical inventory of the proposed land exchange parcels was conducted by Ecosystem Sciences and has been summarized in the “Natural Resources Baseline Inventory” report. Of the seven special status plant species historically documented within the survey parcels, only two were recorded: Davis’s peppergrass (*Lepidium davisii*) and slickspot peppergrass (*Lepidium papilliferum*).

Davis’s peppergrass is not federally listed, but has the S3 “vulnerable” status in the state of Idaho. Ecosystem Sciences recorded nine and IDARNG staff recorded two occurrences across the survey area (Table 2). All observations were limited to the southeastern parcels (X1, X2, B6, and S19; Figure 3).

Slickspot peppergrass is listed as threatened under the Endangered Species Act by the U.S. Fish and Wildlife Service (USFWS 2016) as well as having the S1 “critically imperiled” status in the state of Idaho. Ecosystem Sciences recorded 21 and IDARNG staff recorded four occurrences across the survey area (Table 2). All observations were limited to three northern parcels (S1, S2, and S21; Figure 3).

**Table 2.** Total observations of special status plant species in the survey parcels (Ecosystem Sciences and IDARNG data).

<b>Common Name</b>	<b>Scientific Name</b>	<b>State Rank*</b>	<b>Total Observations</b>
Davis's peppergrass	<i>Lepidium davisii</i>	S3	11
Slickspot peppergrass	<i>Lepidium pappilliferum</i>	S1	25

\*State ranking: S1 = critically imperiled; S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = secure

# 2016 Land Exchange- Vegetation Points

Orchard Combat Training Center, Idaho

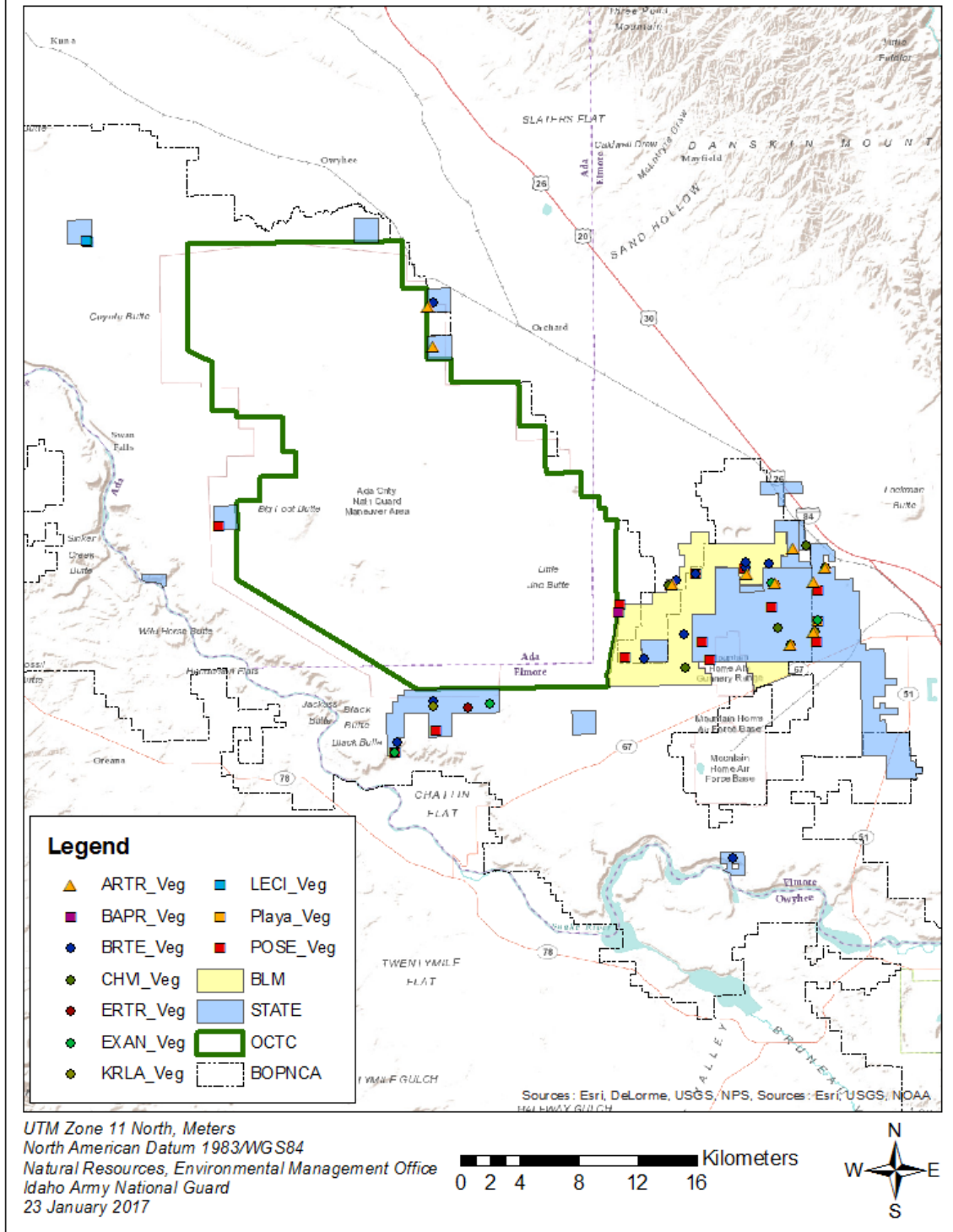
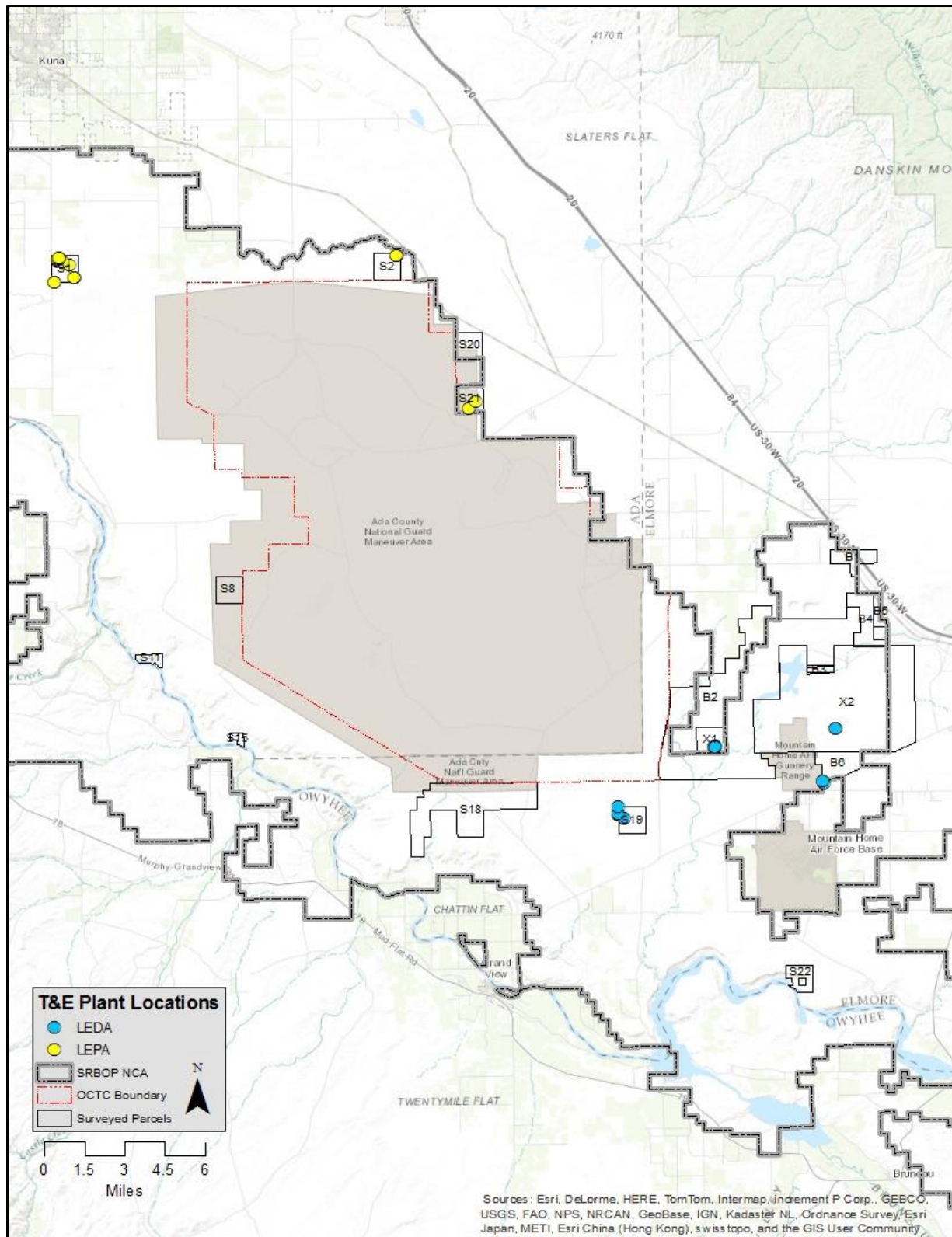


Figure 2. Locations of vegetation points throughout the survey area. Acronyms: see Table 1.



**Figure 3.** Ecosystem Sciences and IDARNG observations of special status plant species Davis's peppergrass (*Lepidium davisii*; blue) and slickspot peppergrass (*Lepidium papilliferum*; yellow). Map prepared by and obtained from Ecosystem Sciences.

## Birds

### Raptors

Most of the parcels surveyed fell within the boundaries of the BOPNCA and therefore, it was important to record raptor occupancy in the areas surveyed. However, it is important to note that raptor observations were made opportunistically and does not represent spatial dynamics or use of raptors in the survey area. Observations were made from 26 May to 13 July, which would indicate that raptor density observed during surveys is likely to represent post-breeding season densities.

Raptor observations were made during walking surveys, as non-survey incidental observations, and during driving surveys. A total of 93 raptor observations were made by IDARNG staff with most abundant (68%) being burrowing owls (*Athene cunicularia*; Table 3, Figure 4). For a rough estimate of density, 63 burrowing owls were observed over a survey area of 4,240 acres for a density of 0.015 individuals per acre. For comparison, the IDARNG staff conduct raptor driving routes throughout the OCTC on 30 mile routes each month. During the same time (May – July), an average of 17.333 burrowing owls were observed during OCTC surveys which cover a rough area of 1,191 acres (60 miles with a 50m search buffer) making for a similar density of 0.014 individuals per acre. Therefore, we do not suspect that burrowing owls occur on the survey parcels at a greater density than the surrounding area (i.e., OCTC).

**Table 3.** Raptor observations made during day and night surveys on the proposed Orchard Land Exchange parcels.

Common Name	Scientific Name	Acronym	State Rank*	Total Observations
Burrowing owl	<i>Athene cunicularia</i>	BUOW	S2B	63
Ferruginous hawk	<i>Buteo regalis</i>	FEHA	S3B	3
Golden eagle	<i>Aquila chrysaetos</i>	GOEA	S3	4
Northern harrier	<i>Circus cyaneus</i>	NOHA	S4	6
Prairie falcon	<i>Falco mexicanus</i>	PRFA	S4	4
Short-eared owl	<i>Asio flammeus</i>	SEOW	S4	12
Turkey vulture	<i>Cathartes aura</i>	TUVU	S5B	1

\*State ranking: S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = secure; B = conservation status applies to breeding population only

### Other Birds (non-raptor)

Non-raptor bird observations included passerines, nightjars, and curlews. Observations were made during walking surveys, as non-survey incidental observations, and during driving surveys.

Six species were detected during surveys, four of which are considered secure or apparently secure in the State of Idaho (Table 4, Figure 5). Sage thrashers (*Oreoscoptes montanus*) and long-billed curlews (*Numenius americanus*) breed in Southwestern Idaho and breeding populations are vulnerable and imperiled, respectively, in the state of Idaho. Ecosystem Sciences also detected long-billed curlews in their survey (see the “Natural Resources Baseline Inventory” report).

**Table 4.** Non-raptor bird observations made during surveys on the proposed Orchard Land Exchange parcels.

<b>Common Name</b>	<b>Scientific Name</b>	<b>State Rank*</b>	<b>Total Observations</b>
Canyon wren	<i>Catherpes mexicanus</i>	S5	1
Common nighthawk	<i>Chordeiles minor</i>	S4B	8
Horned lark	<i>Eremophila alpestris</i>	S5	6
Long-billed curlew	<i>Numenius americanus</i>	S2B	2
Sage thrasher	<i>Oreoscoptes montanus</i>	S3B	3
Western meadowlark	<i>Sturnella neglecta</i>	S5	3

\*State ranking: S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = secure; B = conservation status applies to breeding population only

# 2016 Land Exchange- Incidental Raptors

Orchard Combat Training Center, Idaho

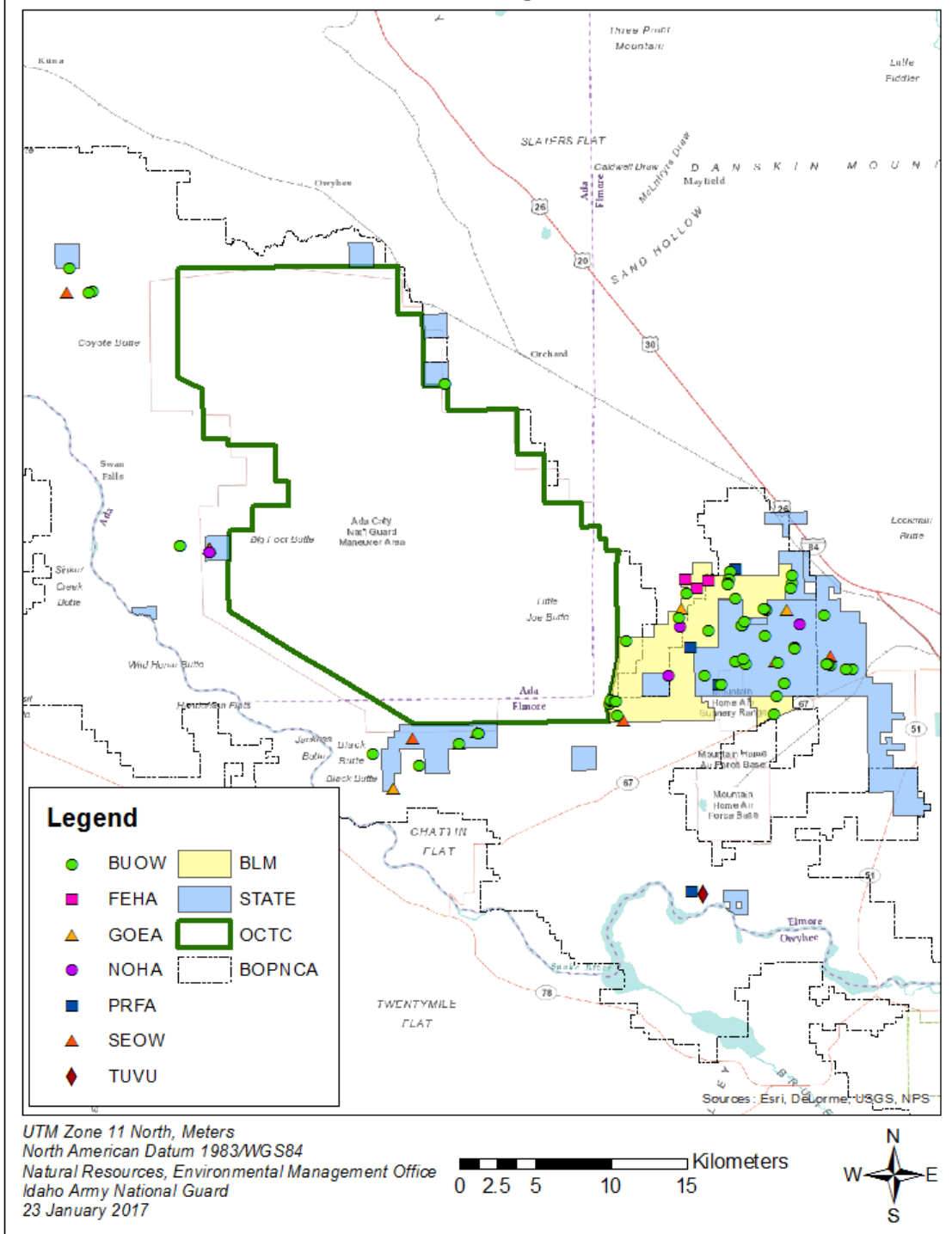


Figure 4. IDARNG observations of raptor species across the survey area. Acronyms: see Table 3.



# 2016 Land Exchange- Other Birds

Orchard Combat Training Center, Idaho

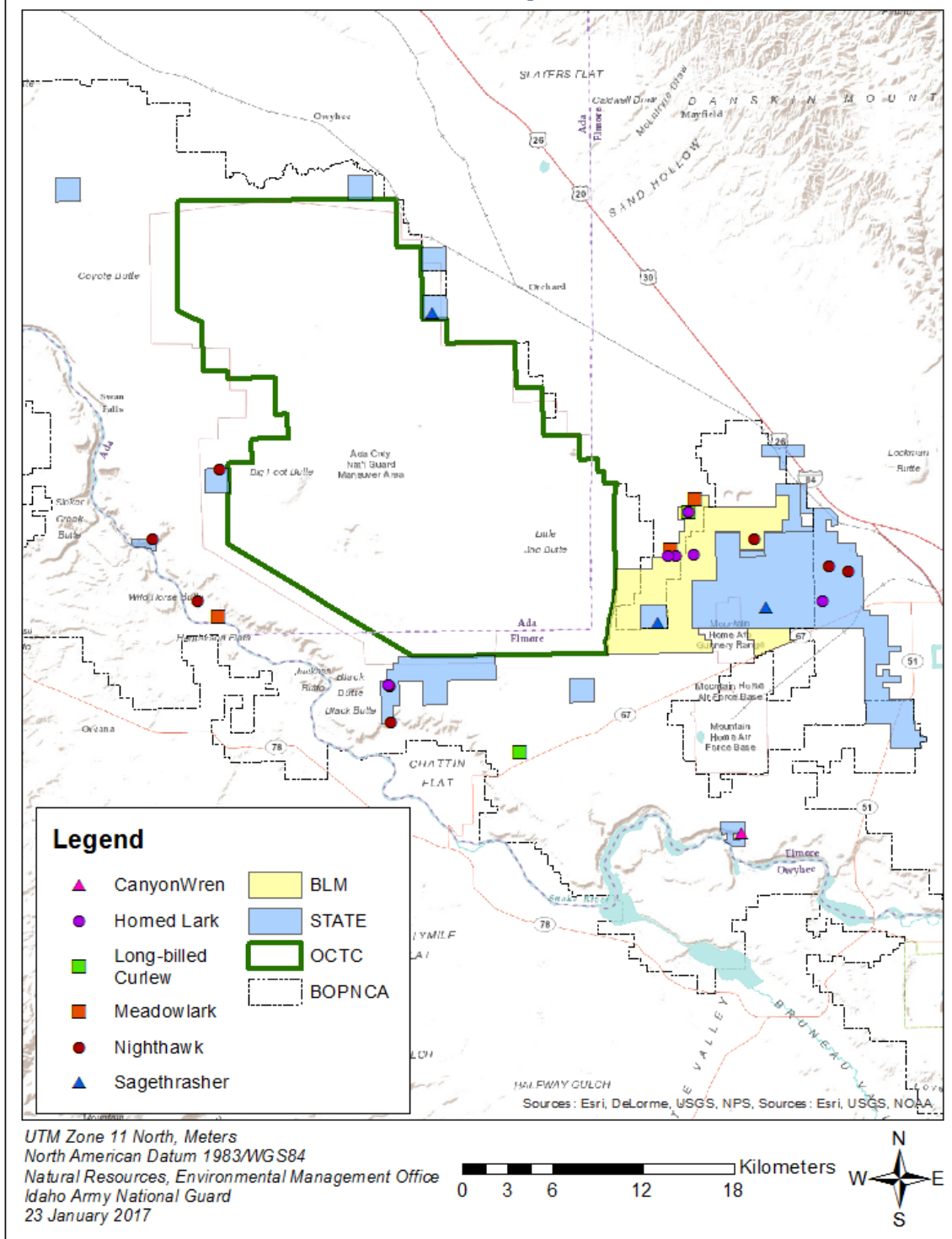


Figure 5. IDARNG observations of non-raptor bird species across the survey area.

## Mammals

### Small Mammals (trapping)

Technicians established 26 night small mammal trapping locations throughout the survey parcels (**Error! Reference source not found.**). Trapping sites used an average of 24 traps per grid, half medium-sized and half large Sherman traps. Traps were open for an average of 3.5 hours for a total of 715 trap hours (traps\*hrs open\*trap nights).

A total of 51 individuals were captured with deer mice being the most abundant (69%; Table 5). Deer mice (*Peromyscus maniculatus*) are secure in the state of Idaho. One interesting capture of note is the desert woodrat (*Neotoma lepida*). This species is a relatively uncommon species to capture, according to trapping reports from the OCTC in previous years. This individual was captured in parcel 18 near the Snake River Canyon rim.

**Table 5.** Summary of small mammals trapped during night trapping throughout the proposed Orchard Land Exchange parcels.

Common Name	Scientific Name	State Rank*	Count
Bushy-tailed woodrat	<i>Neotoma cinerea</i>	S5	5
Deer mouse	<i>Peromyscus maniculatus</i>	S5	35
Desert woodrat	<i>Neotoma lepida</i>	S4	1
Great Basin pocket mouse	<i>Perognathus parvus</i>	S5	1
Ord's kangaroo rat	<i>Dipodomys ordii</i>	S4	9

\*State ranking: S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = secure; B = conservation status applies to breeding population only

### Mammals (incidental observation)

Overall, nine mammal species were observed incidentally during driving and walking surveys. The most abundant were Ord's kangaroo rats (*Dipodomys ordii*) and black-tailed jackrabbits (*Lepus californicus*), which were mostly observed during night driving surveys. Observations were well spread throughout the survey area (Figure 7). Two relatively uncommon species for this area were recorded (red fox in survey parcel B2 and short-tailed weasel in X2 and B2).

**Table 6.** Wildlife species detected during IDARNG Orchard Land Exchange surveys.

Common Name	Scientific Name	State Rank	Total Observations
American badger	<i>Taxidea taxus</i>	S4	25
Black-tailed jackrabbit	<i>Lepus californicus</i>	S5	212
Coyote	<i>Canis latrans</i>	S5	22
Deer mouse	<i>Peromyscus maniculatus</i>	S5	14
Nuttall's cottontail	<i>Sylvilagus nuttallii</i>	S4	23
Ord's kangaroo rat	<i>Dipodomys ordii</i>	S4	425
Pronghorn antelope	<i>Antilocapra americana</i>	S5	12
Red fox	<i>Vulpes vulpes</i>	S4	1
Short-tailed weasel	<i>Mustela ermine</i>	S4	2

\*State ranking: S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = secure; B = conservation status applies to breeding population only

### Bats (acoustic)

Bat acoustic survey efforts amounted to 27 passive recording nights (**Error! Reference source not found.**) for 109 total recording hours with an average of 3 hours 45 minutes per night (max: 6hrs 9 min, min: 2hrs 16min).

Bats were recorded at 11 of the 27 survey points with an average of 1.6 bats call files recorded per point (max: 15, min: 0; Table 7). (*Note: Number of call files does allow a direct estimate of bat abundance.*) Western small-footed myotis (*Myotis ciliolabrum*) were the most common species recorded followed by the canyon bat (*Parastrellus Hesperus*). Note that even though Kaleidoscope Pro identified calls of the big brown bat (*Eptesicus fuscus*) and silver-haired bat (*Lasionycteris noctivagans*), the call files of these two bats can be difficult to distinguish. For this report, call files are lumped together as EpfuLano meaning calls were recorded that are difficult to interpret and could be either species. (*Note: Passive acoustic monitoring automatically records all bat passes, regardless of call quality. Pending further verification, all identifications are considered preliminary.*)

Bat species were distributed widely across the survey area (Figure 9). Most notably all canyon bat (*Parastrellus hesperus*) call files were from survey points located directly adjacent to the Snake River Canyon.

**Table 7.** Bat Acoustic Calls Identified Using Kaleidoscope Pro V3.1.6, Bats of North America 3.1.0 +1.

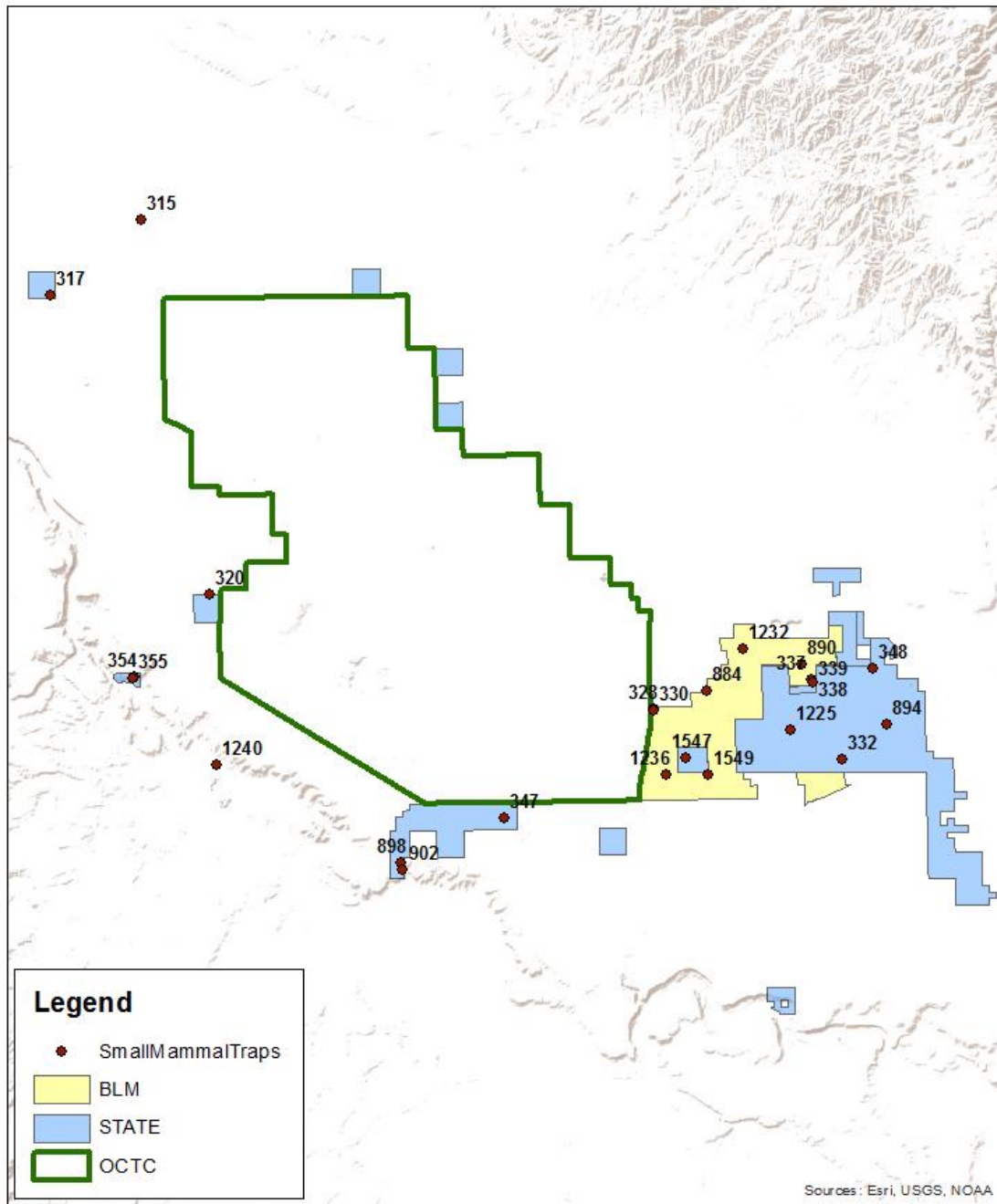
Abbreviation	Common Name	Scientific Name	State Rank*	Total Call Files
EpfuLano**	Big brown bat	<i>Eptesicus fuscus</i>		8
	Silver-haired bat	<i>Lasionycteris noctivagans</i>	S3	
Myca	California myotis	<i>Myotis californicus</i>		1
Myci	Western small-footed myotis	<i>Myotis ciliolabrum</i>	S3	21
Myyu	Yuma myotis	<i>Myotis yumanensis</i>		1
Pahe	Canyon bat	<i>Parastrellus hesperus</i>		12
<b>Total</b>				<b>43</b>

\*State ranking: S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = secure; B = conservation status applies to breeding population only

\*\* Kaleidoscope Auto ID did indicate both species present, unable to verify by hand beyond EpfuLano

# 2016 Land Exchange- Small Mammal Trapping Locations

Orchard Combat Training Center, Idaho



UTM Zone 11 North, Meters  
North American Datum 1983/WGS84  
Natural Resources, Environmental Management Office  
Idaho Army National Guard  
23 January 2017

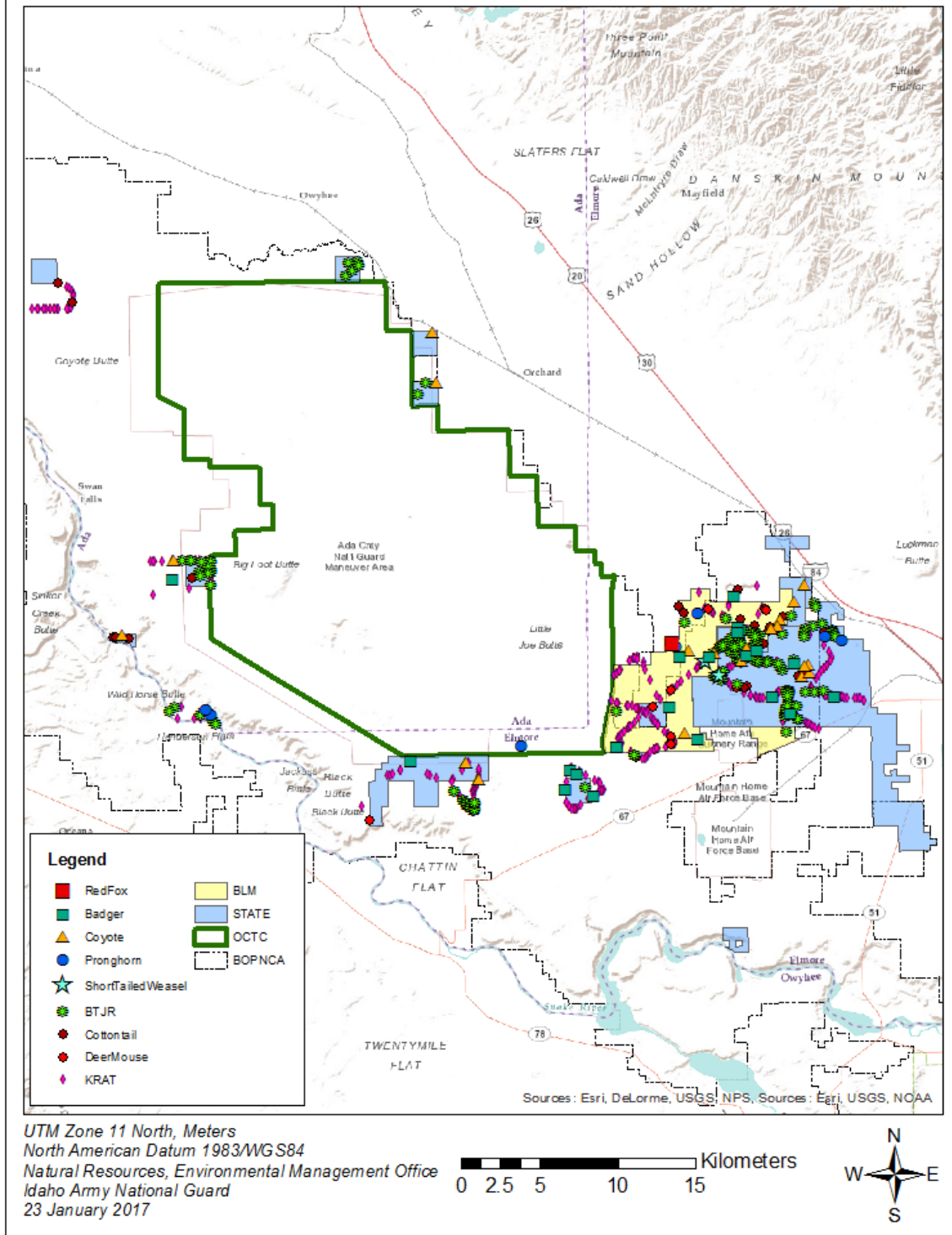
0 2 4 8 12 16 Kilometers



Figure 6. Small mammal trapping locations throughout the survey area.

# 2016 Land Exchange- Mammals (observation)

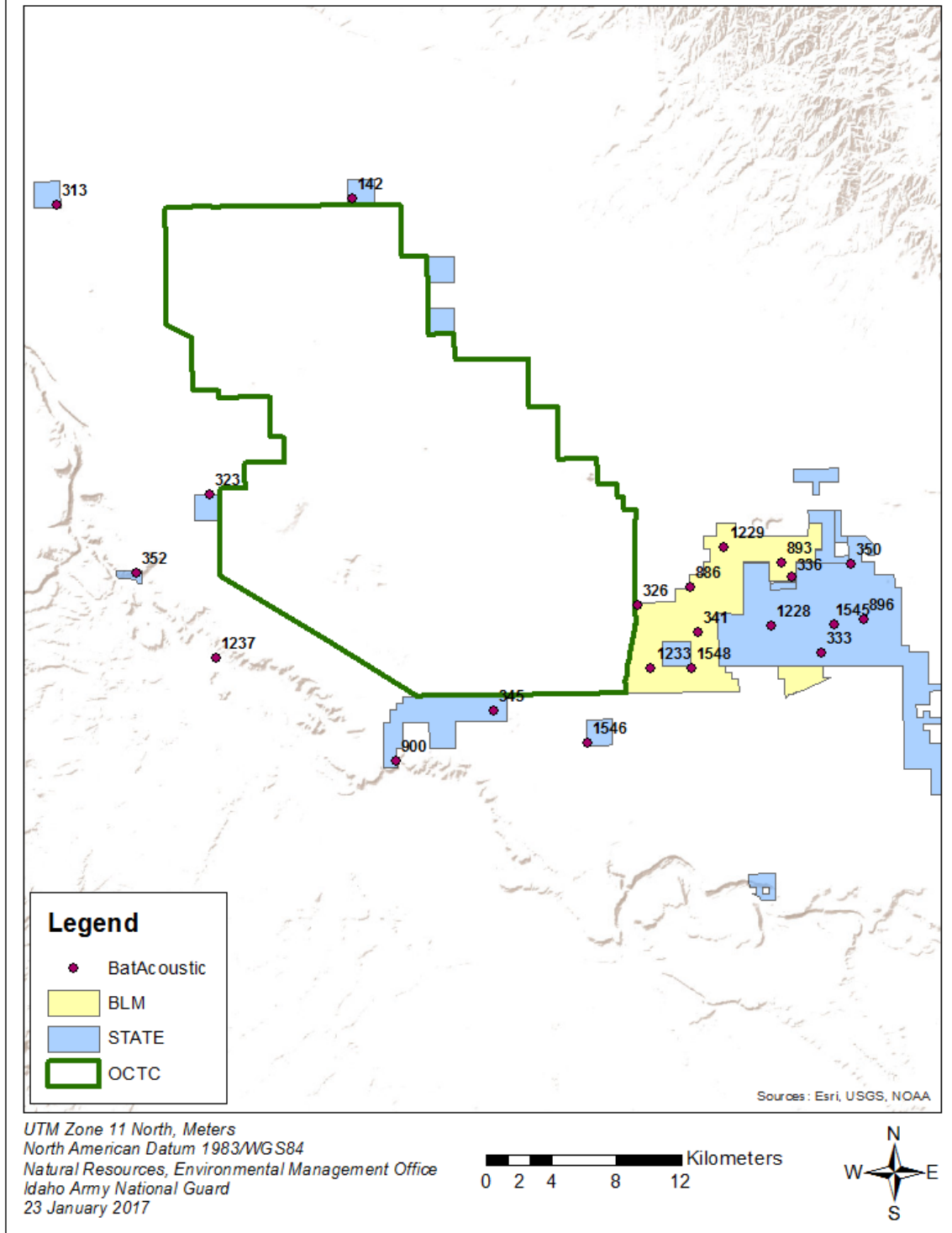
Orchard Combat Training Center, Idaho



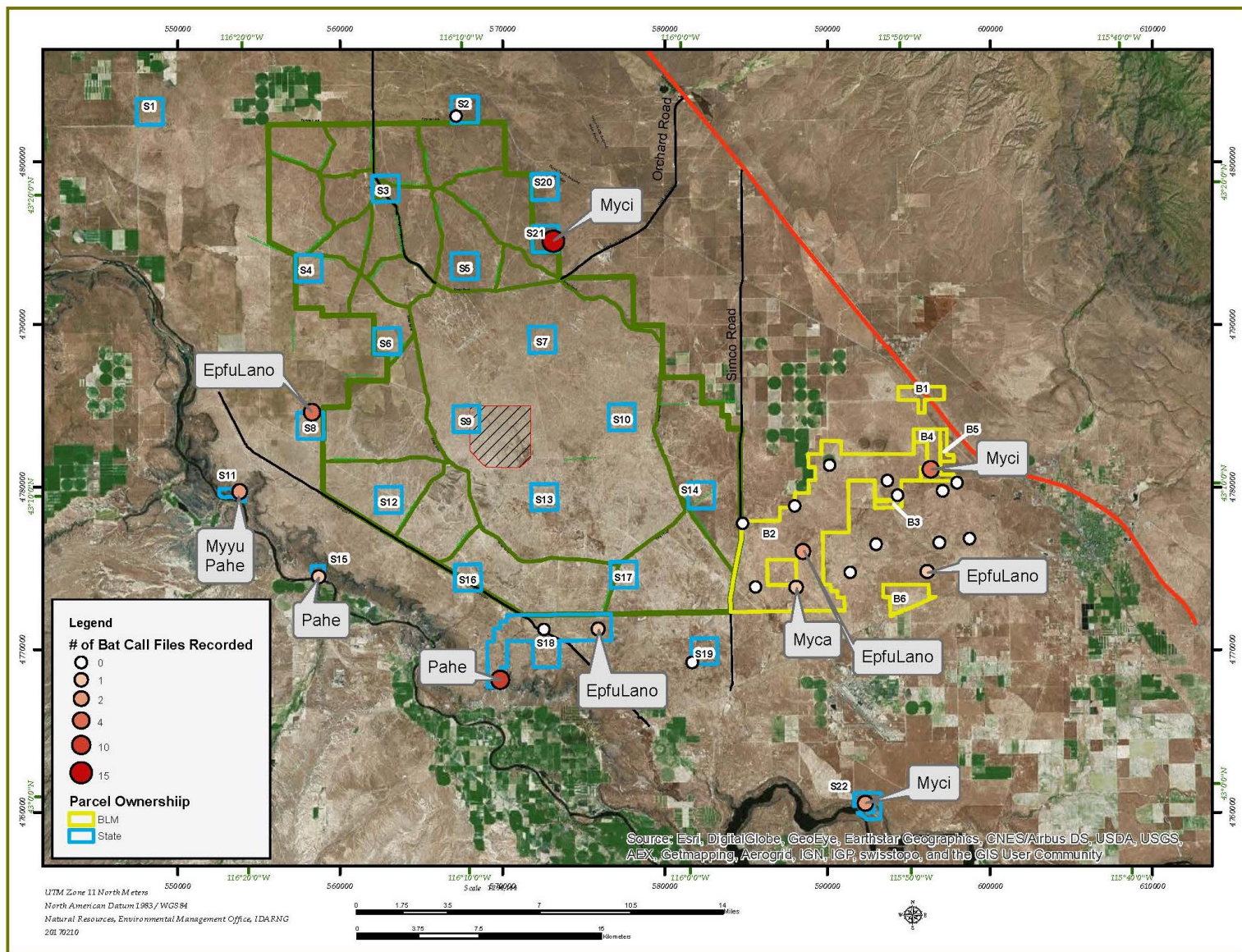
**Figure 7.** Mammal observations throughout the survey area. Acronyms: BTJR = Black-tailed jackrabbit, KRAT = Ord’s kangaroo rat

# 2016 Land Exchange- Bat Acoustic Stations

Orchard Combat Training Center, Idaho



**Figure 8.** Locations of bat acoustic monitoring stations in the Orchard Land Exchange survey area.



**Figure 9.** Distribution of bat species detected during stationary acoustic surveys. The size of the circle indicates that number of bat call files recorded.

Reptiles and Amphibians

For a full herpetological inventory and analysis, please refer to the USGS Report.



## Reptile Inventory – Proposed Orchard Land Exchange, Southwestern Idaho

### Cooperator Report for Inventory Conducted May – July 2016

**Report date:** 20 January 2017

**Report submitted to:** Idaho Army National Guard, Environmental Management Office, 4715 S. Byrd Street, Boise, Idaho 83705

**Principal Investigators:** David S. Pilliod<sup>1</sup> and John O. Cossel Jr.<sup>2</sup>

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Disclaimer: This information is preliminary and is subject to revision. It is being provided to meet the need for timely best science. The information is provided on the condition that neither the U.S. Geological Survey nor the U.S. Government may be held liable for any damages resulting from the authorized or unauthorized use of this information. Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

#### Background

In the spring and summer of 2016, Conservation Branch staff from the Idaho Army National Guard (IDARNG) assessed wildlife occurrences on parcels associated with the proposed Orchard Land Exchange (OLE), which is adjacent to the Orchard Combat Training Center (OCTC) located near the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA) in southwestern Idaho. The US Geological Survey Forest and Rangeland Ecosystem Science Center and Northwest Nazarene University assisted the Conservation Branch staff from the IDARNG with protocol development, training, and analysis of data used to generate this interim report. The report assesses the presence of lizard and snake species on the proposed 36,000 acre area associated with proposed OLE, as well as historic findings on the 143,000 acre OCTC. Field data was collected by Conservation Branch staff of the IDARNG.

#### Objectives

1. Determine the species composition of squamate reptiles (lizards and snakes) on the proposed training area with 90% confidence
2. Identify potential areas for future population monitoring

#### Survey Methods

The occurrence of squamate reptiles at 18 parcels representing the proposed Orchard Land Exchange was determined through visual encounter surveys involving area constrained searches and incidental observation. At 11 parcels, we established a grid of potential survey points at 685-m spacing (Figure 1). Field crews navigated to a subset of points using GPS and

searched for lizards and snakes while walking meander-style transects in the vicinity of the point (Table 1). Track logs recorded the time searched and length of search along each transect as a measure of effort. Surveys were conducted between 26 May and 8 July 2016. Field data for OCTC surveys were collected in 2013 and 2014 field seasons with a final report developed by USGS and NNU in 2014 (Appendix 1; Pilliod and Cossel 2014).

Table 1. Level of effort for walking surveys to detect lizards and snakes at the 18 parcels of the proposed Orchard Land Exchange, 2016. The OCTC is shown for reference.

Parcel	Parcel Size (ha)	Total Transect Length (meters walked)	Area Searched (ha)	Search Effort [100 * (Area Searched / Parcel Size)]
S1	259.5	8,792	3.52	1.36%
S2	260.9	10,751	4.30	1.65%
S8	259.4	12,579	5.03	1.94%
S11	91.7	7,551	3.02	3.30%
S15	46.1	2,962	1.18	2.57%
S18	1666.1	48,796	19.52	1.17%
S19	259.1	7,887	3.15	1.22%
X1	271.5	5,659	2.26	0.83%
X2	5419.2	134,362	53.74	0.99%
B6	379.9	11,275	4.51	1.19%
B2	5294.5	121,134	48.45	0.92%
S20	258.4	14,579	5.83	2.26%
S21	258.4	12,286	4.91	1.90%
S22	207.2	17,998	7.20	3.47%
B3	66.4	7,075	2.83	4.26%
B4	388.4	9,633	3.85	0.99%
B5	97.2	2,674	1.07	1.10%
B1	258.4	16,804	6.72	2.60%
OCTC	57994.5	NA	NA	NA

*Potential Species Pool* – Eight lizard species and eight snake species have been observed within the Orchard Combat Training Center (OCTC) during systematic surveys conducted in 1999 and 2012, or incidentally over the last decade (Appendix 1; Pilliod and Cossel 2014). This background information provided a potential species pool for the 2016 inventory of the proposed Orchard Land Exchange parcels. In this report we only assessed species occurrences from surveys conducted at the parcels. Other incidental observations made throughout the year were not included here, but are available.

*Detection Rates* – Two of the larger survey areas, parcel X2 and B2, were used to assess detection rates for each species. We calculated detection rate as the number of days when a species was observed in a parcel divided by the total number of days searched.

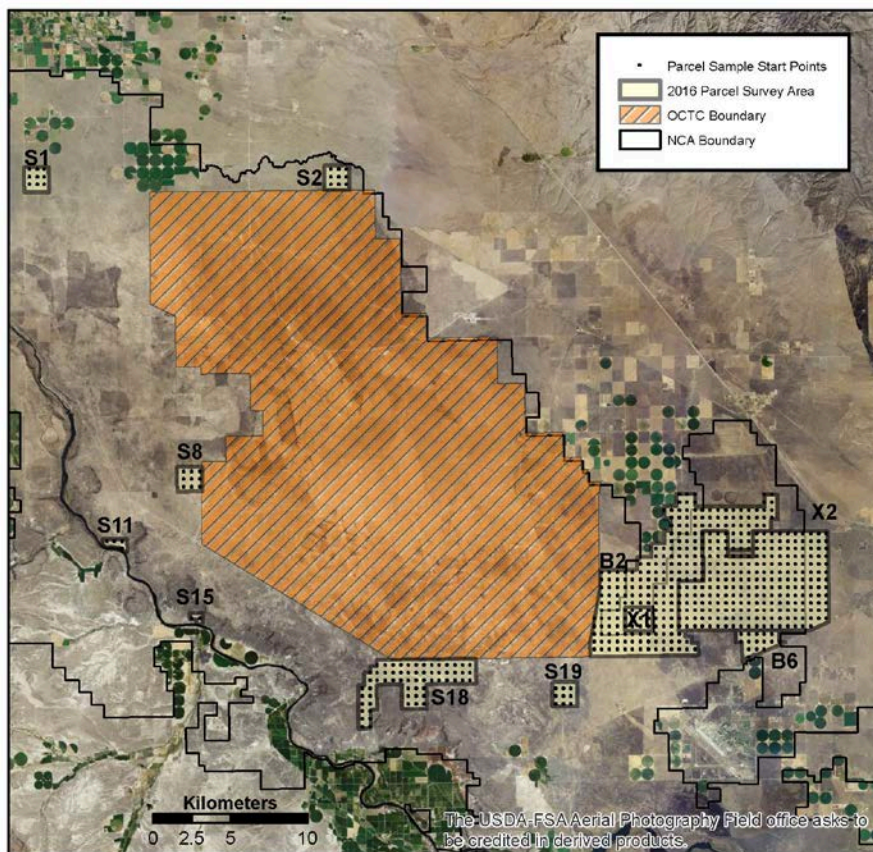


Figure 1. Map of the original 11 parcels overlaid by a grid on 685-m spacing to help distribute survey effort across each parcel. Seven additional parcels were added later and are shown in Figure 2.

### Major Findings

*Species Detection* – We detected 7 of 8 (87.5%) of the possible lizard species and 5 of 8 (62.5%) of the possible snake species in the proposed Orchard Land Exchange parcels. Parcel X2 and B2 had the highest species richness (9 species each; Table 2, Fig. 2), although these areas were searched more heavily than other parcels (Table 1). When adjusted for area searched, Parcel S11 had the highest species richness (2.3 species per ha searched) and the most individuals observed (9.6 per ha searched) [Table 2, Fig. 2; also see Fig. S1].

The most common lizard species observed were Sagebrush Lizard (547 observations), Side-blotched Lizard (100 observations), and Western Fence Lizard (16 observations) (Table 3). The most common snake species observed were Rattlesnake (37 observations) and Gopher Snake (23 observations). All other lizard and snake species had fewer than 10 observations.

Table 2. Number of species and individuals observed across all proposed Orchard Land Exchange parcels, May – July 2016. The OCTC is shown for reference.

Parcel	Species Richness	Number of Species Per Hectare Searched	Total Number of Individuals Observed	Number Individuals Per Hectare Searched
S1	3	0.85	7	1.99
S2	5	1.16	13	2.33
S8	3	0.60	12	2.98
S11	7	2.32	29	9.60
S15	0	0.00	0	0
S18	7	0.36	22	0.77
S19	3	0.95	8	2.54
X1	1	0.44	2	1.33
X2	9	0.17	312	5.81
B6	2	0.44	16	3.55
B2	9	0.19	313	6.54
S20	0	0.00	0	0.00
S21	4	0.81	6	0.56
S22	2	0.28	2	0.28
B3	3	1.06	14	4.24
B4	1	0.26	1	0.26
B5	1	0.93	2	1.87
B1	0	0.00	0	0
OCTC	16	NA	NA	NA

Table 3. Number of individuals of each species observed during walking transects across all proposed Orchard Land Exchange parcels, May – July 2016. Two species accounts, 1 Longnosed Leopard Lizard and 1 Rattlesnake, were encountered incidentally near a parcel boundary and are included in this table, but not in parcel analysis. Species are organized from most abundant to least abundant, for lizards and snake separately.

<b>Species</b>	<b>Number of Individuals Detected</b>
Sagebrush Lizard	547
Side-blotched Lizard	100
Western Fence Lizard	16
Western Whiptail Lizard	9
Desert Horned Lizard	4
Great Basin Collared Lizard	3
Longnosed Leopard Lizard	3
Rattlesnake	37
Gopher Snake	23
Racer	8
Striped Whipsnake	3
Ground Snake	2
<b>Total</b>	<b>755</b>

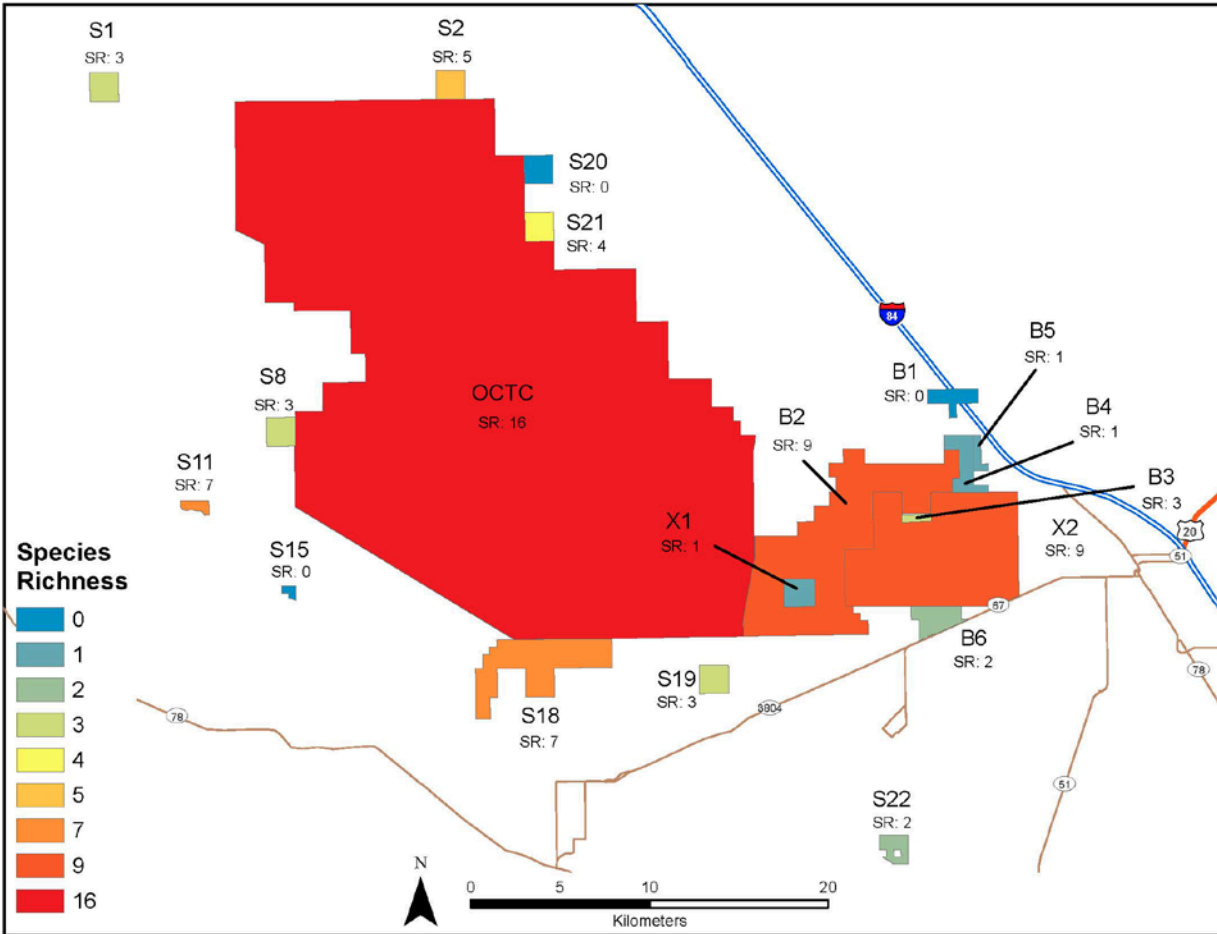


Figure 2. Species richness (number of species observed) at each parcel at the proposed Orchard Land Exchange, May – July 2016. The OCTC is shown for reference with species richness determined by trapping in 2012 and 2013. This richness map may be biased by survey effort. See Appendix Figure S1 for species richness corrected by survey effort.

*Detection Rates* – Level of effort was fairly similar across different parcels and ranged from 0.72% – 3.26% of the area searched (Table 4). We found that detection rates varied by species. Ground Snakes, Desert Horned Lizards, Great Basin Collared Lizards, Longnosed Leopard Lizards, and Striped Whipsnakes had the lowest detection rates (0–0.091), Western Whiptail Lizards, Racers, Western Fence Lizards had moderate detection rates (0.182–0.227), and Side-blotched Lizards, Gopher Snakes, Rattlesnakes, and Sagebrush Lizards had the highest detection rates (0.409–0.955). Capture rates varied through time (not shown, but available upon request) and this could influence the detection probabilities, especially sites that were visited only once.

Table 4. Detection probability of species observed at two parcels in the proposed Orchard Land Exchange, 2016. Data are organized by average detection probability, from highest to lowest, for lizards and snakes separately.

<b>Species</b>	<b>Detection Probability (p)</b>		
	<b>Parcel X2</b>	<b>Parcel B2</b>	<b>Average</b>
Sagebrush Lizard	1.000	0.909	0.955
Side-blotched Lizard	0.364	0.455	0.409
Western Fence Lizard	0.273	0.182	0.227
Western Whiptail Lizard	0.182	0.182	0.182
Desert Horned Lizard	0.000	0.091	0.045
Great Basin Collared Lizard	0.091	0.000	0.045
Longnosed Leopard Lizard	0.000	0.091	0.045
Gopher Snake	0.455	0.545	0.500
Rattlesnake	0.636	0.364	0.500
Racer	0.273	0.091	0.182
Striped Whipsnake	0.182	0.000	0.091
Ground Snake	0.000	0.000	0.000

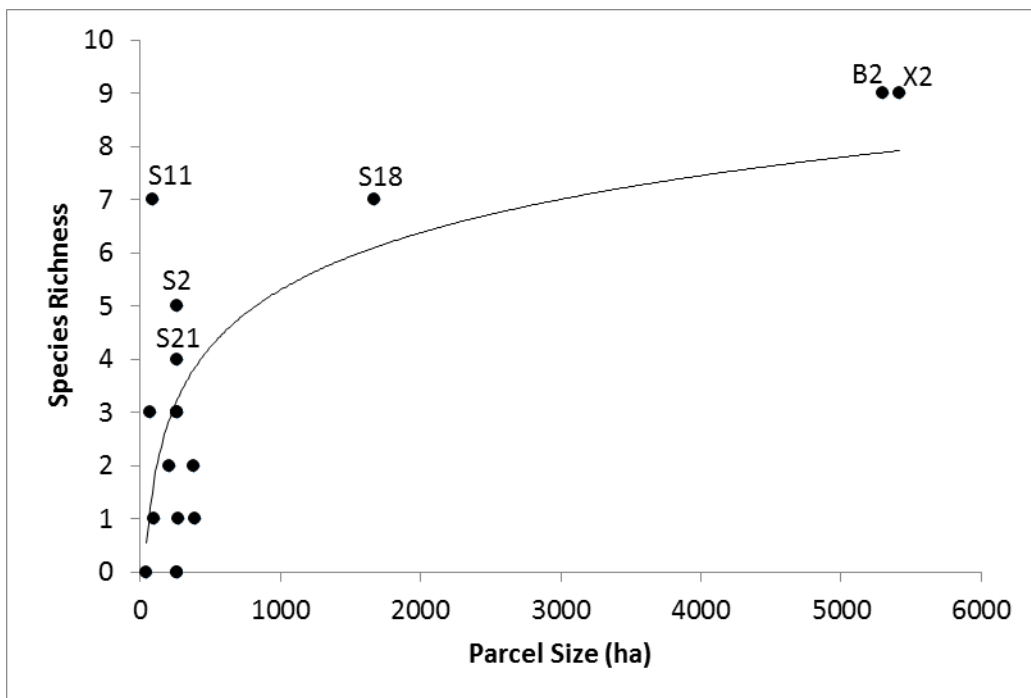


Figure 3. Species-area curve for the each parcel sampled at the proposed Orchard Land Exchange, May – July 2016.

Citation:

Pilliod, D.S., and J.O. Cossel Jr. 2014. Reptile Occupancy and Abundance Monitoring on the Idaho National Guard Orchard Combat Training Center, Southwestern Idaho. Final report to the Idaho Army National Guard, Boise, Idaho.

**Status of Reporting Tasks:**

Task	Status
Develop training material and protocol for field crews	Completed 5/23/2016
Train field crews to conduct survey methods (classroom and field)	Completed 5/23/2016
Develop form for electronic data entry	Completed 5/23/2016
Analyze data to assess species composition and confidence	Completed 12/23/2016
Write interim report (2016)	Completed 12/23/2016



OCTC – USGS – NNU Reptile Inventory

20 January 2017

Appendix 1. Eight species of lizard and eight species of snakes have been observed at the OCTC.

Reptiles of the Orchard Combat and Training Center						
Name	Genus	Species	Former Names		Last observed	Notes
<b>Lizards</b>						
Western Whiptail Lizard	<i>Aspidoscelis</i>	<i>tigris</i>	<i>Cnemidophorus</i>	<i>tigris</i>	2012	
Mojave Black-collared Lizard	<i>Crotaphytus</i>	<i>bicinctores</i>			1997	
Long-nosed Leopard Lizard	<i>Gambelia</i>	<i>wislizenii</i>			2012	
Greater Short-horned Lizard	<i>Phrynosoma</i>	<i>hermandesi</i>				Possible, but phylogeny a bit uncertain in that area
Pygmy Short-horned Lizard	<i>Phrynosoma</i>	<i>douglassii</i>			2012	
Desert Horned Lizard	<i>Phrynosoma</i>	<i>platyrhinus</i>			2012	
Western Skink	<i>Plestiodon</i>	<i>skiltonianus</i>	<i>Eumeces</i>	<i>skiltonianus</i>		Never observed, but possible
Sagebrush Lizard	<i>Sceloporus</i>	<i>graciosus</i>			2012	
Western Fence Lizard	<i>Sceloporus</i>	<i>occidentalis</i>			2012	
Side-blotched Lizard	<i>Uta</i>	<i>stansburiana</i>			2012	
<b>Snakes</b>						
Rubber Boa	<i>Charina</i>	<i>bottae</i>				Never observed, but possible
North American Racer	<i>Coluber</i>	<i>constrictor</i>			2012	
Striped Whipsnake	<i>Coluber</i>	<i>taeniatus</i>	<i>Masticophis</i>	<i>taeniatus</i>	2012	
Western Rattlesnake	<i>Crotalus</i>	<i>oreganus</i>	<i>Crotalus</i>	<i>viridis</i>	2012	
Ringneck Snake	<i>Diadophis</i>	<i>punctatus</i>				Never observed, but possible
Night Snake	<i>Hypsiglena</i>	<i>chlorophaea</i>	<i>Hypsiglena</i>	<i>torquata</i>	1998	
Gopher Snake	<i>Pituophis</i>	<i>catenifer</i>	<i>Melanoleucus</i>	<i>catenifer</i>	2012	
Long-nosed Snake	<i>Rhinocheilus</i>	<i>lecontei</i>			2012	
Western Ground Snake	<i>Sonora</i>	<i>semiannulata</i>			1999	
Western Terrestrial Garter Snake	<i>Thamnophis</i>	<i>elegans</i>			1998	
Common Garter Snake	<i>Thamnophis</i>	<i>sirtalis</i>				Never observed, but possible

Table S1. Species observed at parcels in the proposed Orchard Land Exchange, 2016.

Parcel	Desert Horned Lizard	Gopher Snake	Great Basin Collared Lizard	Ground Snake	Longnosed Leopard Lizard	Racer	Rattlesnake	Sagebrush Lizard	Side- blotched Lizard	Striped Whipsnake	Western Fence Lizard	Western Whiptail Lizard	Total
S1		1						3	3				7
S2		1					1	3	7			1	13
S8								1	10		1		12
S11			2	1	1		1		19		4	1	29
S15													0
S18	2	1		1				2	10				16
S19		1							5			2	8
X1								2					2
X2		7	1			5	22	248	20	1	6	2	312
B6								15				1	16
B2	2	11			1	1	9	259	23		5	2	313
S20													0
S21		1				2	1	2					6
S22									1	1			2
B3								11	2	1			14
B4								1					1
B5							2						2
B1													0
<b>Grand Total</b>	4	23	3	2	2	8	36	547	100	3	16	9	753

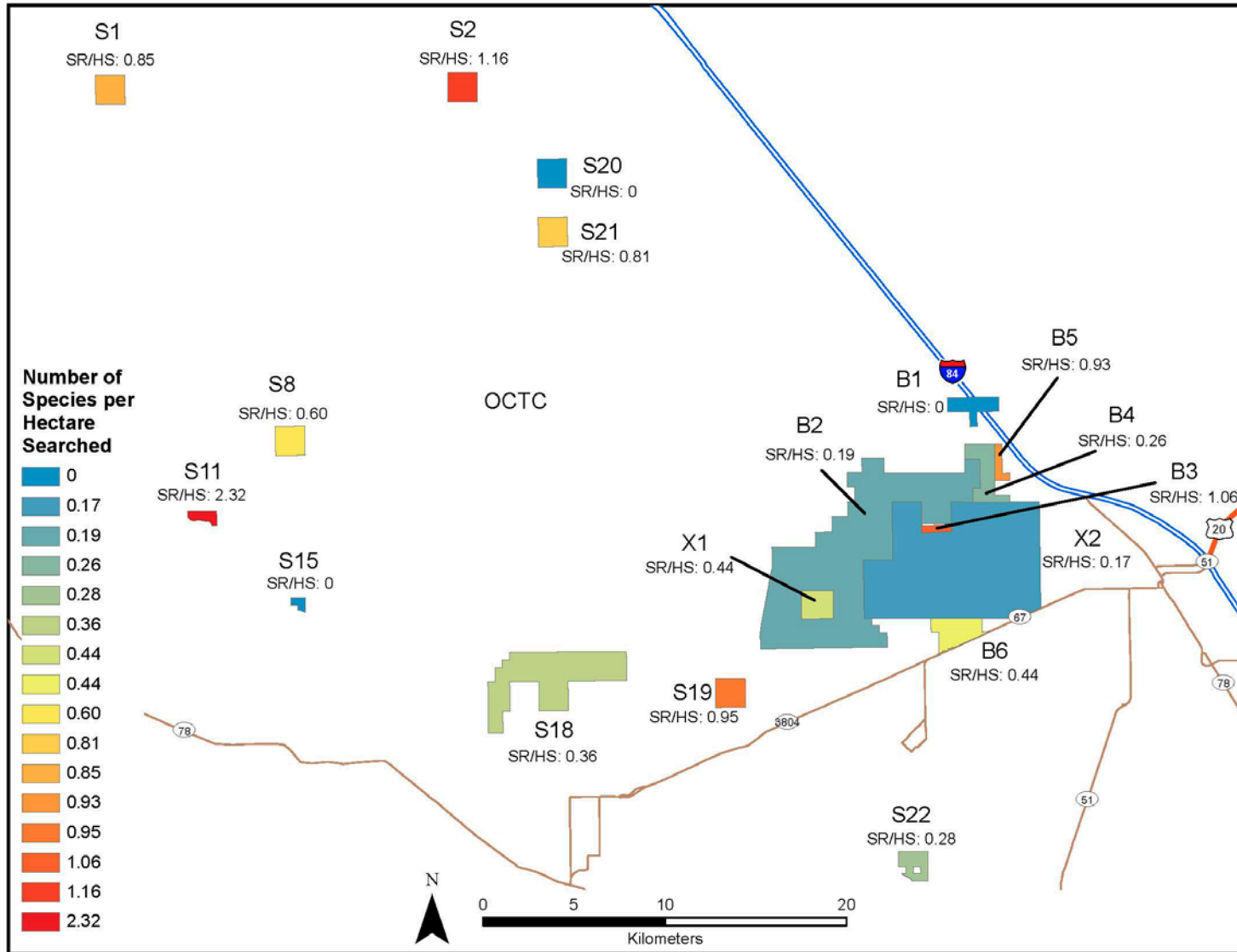


Figure S1. Species richness (number of species observed) at each parcel divided by the area searched at the proposed Orchard Land Exchange, May – July 2016.



# Natural Resources Baseline Inventory

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*Idaho Army National Guard,  
Orchard Combat Training Center*

January 16, 2017

Prepared by Ecosystem Sciences, 202 N9th St. Suite 400 Boise, Idaho 83702

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## Executive Summary

Ecosystem Sciences and Idaho Army National Guard (IDARNG) conservation staff conducted biological site clearances on approximately 38,800 acres of Idaho Department of Lands (IDL) and Bureau of Land Management (BLM) property within or adjacent to the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA). The project area was divided into 18 project parcels ranging in size from 113 acres to 13,352 acres. Surveys were conducted following intuitive-controlled methods outlined in BLM's Slickspot Peppergrass Inventory and Clearance Standards (BLM 2010). Wildlife observations were also documented during the survey, with special attention paid to long-billed curlews (*Numenius americanus*) and ferruginous hawks (*Buteo regalis*), in which case the spatial location and numbers observed were recorded via a GPS.

IDARNG provided a land cover map derived using remote sensing based on RapidEye satellite imagery. The remote sensing was performed by Boise State University (BSU) (Spaete et al. 2016). Land cover mapping shows approximately 53% of the project area is covered by Cheatgrass (*Bromus tectorum*) (41.0%) and Exotic Annuals (11.7%). However, native land cover types that are important to resident and migratory wildlife (e.g. birds, ungulates) encompass a significant portion of the 18 parcels in the project area. Most notably, Sagebrush (*Artemisia spp.*) encompasses 17.9% of the project area, Sandberg Bluegrass (*Poa secunda*) covers 14.2%, and native shrubs (i.e. rabbitbrush, saltbush and winterfat) and large bunch grasses make up an additional 7.6% of the parcels. Combined, these native species represent nearly 40% of the project area.

Over 70 species of plants were identified during the site clearances, including two special status plant species: slickspot peppergrass (*Lepidium papilliferum*) and Davis' peppergrass (*Lepidium davisii*). Seventeen occurrences of slickspot peppergrass were found in Parcels S1 (14) and S2 (3). A total of seven Davis' peppergrass populations were found in Parcels S19 (3), B6 (2), X1 (1) and X2 (1). Most observations of slickspot peppergrass and Davis' peppergrass match historical record locations. Of significant note, 10 new populations of slickspot peppergrass were identified in Parcel S1.

Previously recorded special status species Janish's penstemon (*Penstemon janishiae*), Packard's buckwheat (*Eriogonum shockleyi var. packardae*), desert pincushion (*Chaenactis stevioides*) and white eatonella (*Eatonella nivea*) were not found during the site clearances. Janish's penstemon was last observed in 1938 in Parcel S18 and Packard's buckwheat in 1971 in Parcel S8. Desert pincushion was last observed in 2000 in Parcel S18. White eatonella was last observed in 2000 in Parcel B2.

Twenty-eight species of wildlife were identified during the survey. Three ferruginous hawks were observed in parcels S8 (1) and Parcel S18 (2). Twenty-two long-billed curlews were observed in parcels S2 (8), S18 (10) and B2 (4).

The results of the survey indicate that the project area supports local, state and federal plant or wildlife species of importance.

## Introduction

### Purpose

The purpose of this project is to conduct biological site clearances on approximately 38,800 acres of Idaho Department of Lands (IDL) and Bureau of Land Management (BLM) property within and adjacent to the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA), and to develop the associated specialist report for use in future planning and National Environmental Policy Act (NEPA) documentation.

### Project Location and Environmental Setting

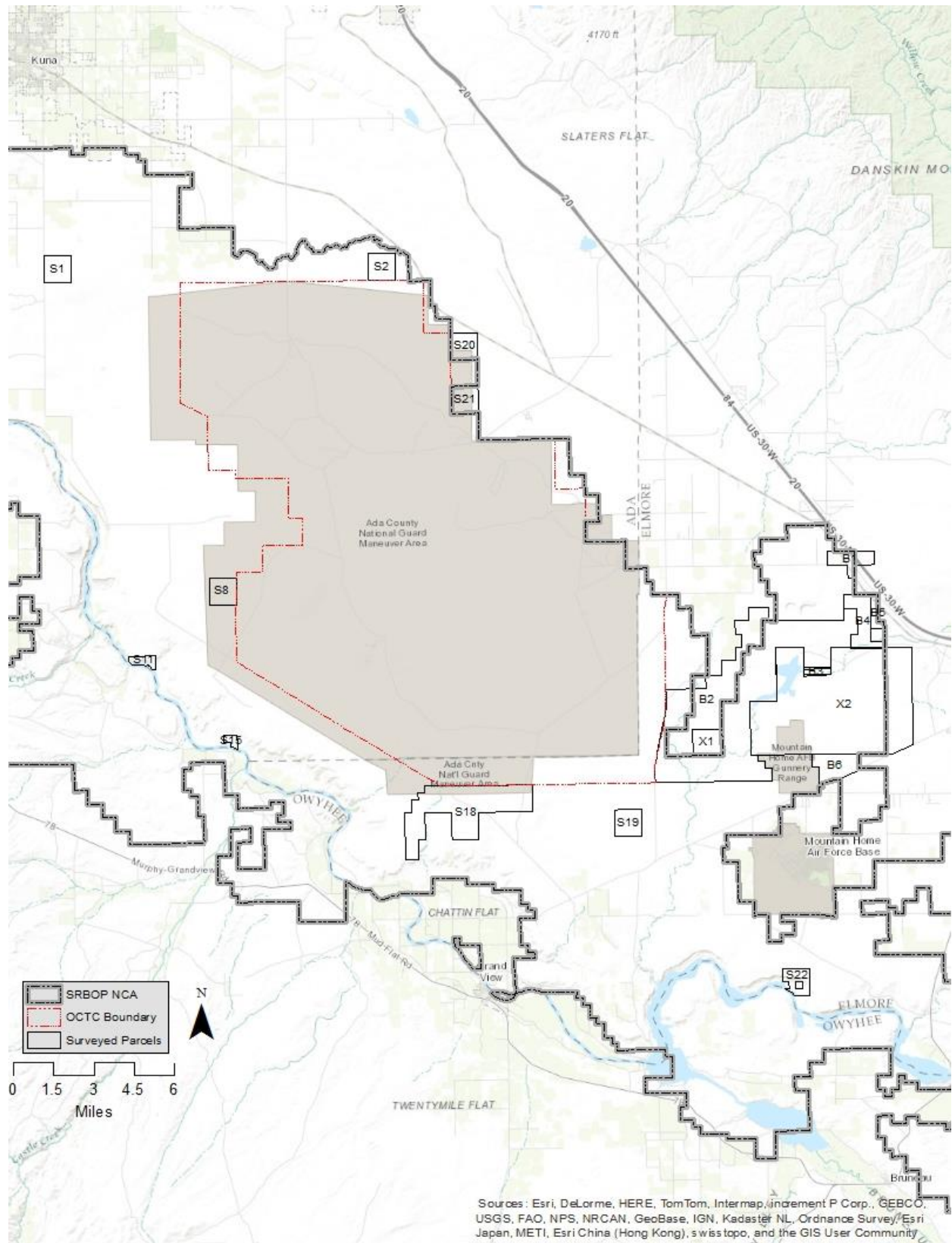
The project area is located in Ada and Elmore counties of southwest Idaho. The area is comprised of approximately 38,800 acres and is divided into 18 parcels. All parcels lie within or adjacent to the NCA; they are also near to or directly adjacent to the Idaho Army National Guard's (IDARNG) Orchard Combat Training Center (OCTC). Seven parcels are in Ada County, with the remaining eleven parcels located in Elmore County.

The 18 parcels range in size from 113 acres to 13,352 acres (Table 1). Ten of the parcels are owned by the IDL. The other eight are federally owned and managed by the BLM. Elevation of all parcels range from a low of 708 meters (Parcel S11), near the Snake River in southern Ada County, to up to 1,015 meters (Parcel B2), near Interstate 84 in Elmore County. The project area consists of a mix of grassland, shrubs and exotic annuals.

**Table 1. Project Area Parcels, Ownership and Acreage**

Parcel No.	Ownership	Acres
S1	State	641.5
S2	State	644.6
S8	State	640.9
S11	State	226.5
S15	State	113.9
S18	State	4,116.3
S19	State	640.2
S20	State	638.6
S21	State	639.4
S22	State	512.4
B1	BLM	638.4
B2	BLM	13,084.0
B3	BLM	164.4
B4	BLM	960.5
B5	BLM	240.2
B6	BLM	938.9
X1	BLM	670.8
X2	BLM	13,352.6
<b>Total Acres</b>		<b>38,864.1</b>





**Figure 1. OCTC Natural Resources Baseline Inventory/Survey Project Area**

## Methods

### Existing Information

IDARNG provided the existing sensitive plant and animal data for this study, obtained from the Idaho Fish and Wildlife Information System Database (IFWIS) (IDFG 2015). The existing information consists of 14 shapefiles that document vegetation and wildlife (e.g. fish, reptiles, birds, mammals, and invertebrates) observations in the NCA. Of the 14 shapefiles provided, only six contained records that are located within the 18 parcels of the project area (Table 2). Information from the other eight shapefiles documented potential species that could be encountered during field surveys.

**Table 2. Information Used to Determine the Presence/Absence of Vegetation and Wildlife in the Parcels**

Shapefiles with data in Project Parcels	Shapefiles w/o data in Project Parcels
Animal_Observations_July15_C.shp	Critical_Habitat_Bulltrout_L.shp
Animal_Observations_July15_S.shp	Critical_Habitat_BullTrout_S.shp
FISH_GENERALDISTRIBUTION_201.shp	Critical_Habitat_Canada_Lynx.shp
FIX_PLANT_EO_ALLJULY15_GC_Cl.shp	Critical_Habitat_NOAA_SnakeR.shp
PLANT_PointsJuly15_Clip.shp	Critical_Habitat_WHSturgeon.shp
PLANT_POLYSJULY15_CLIP.shp	Plant_LinesJuly15_CLIP.shp
	SageGrouseLeks_2015_Clip.shp
	SharpTailedCrouseLeks_2015_C.shp

A comprehensive list of plant species known to occur within the OCTC was provided by the IDARNG and reviewed prior to field surveys (Appendix A). Soil data (Appendix B) was gathered from the Natural Resources Conservation Service's (NRCS) soil survey geographic database (SSURGO) for Ada and Canyon Counties, Idaho (NRCS 2015).

### Field Investigation

Survey methods followed the BLM Slickspot Peppergrass Inventory and Clearance Standards (BLM 2010) and the Idaho Fish and Wildlife Office of the U.S. Fish and Wildlife Service (USFWS) Rare Plant Inventory Guidelines (USFWS 2001). The surveys were performed by Ecosystem Sciences and IDARNG personnel from May to August 2016 using intuitive-controlled survey methods. These methods are recommended for projects that are looking to ensure National Environmental Policy Act (NEPA) and Endangered Species Act (ESA) compliance. Intuitive-controlled surveys are also recommended for project inventories and clearances (BLM 2010). This method includes a complete survey of habitats with potential for sensitive species (BLM 2010). Transects were established to ensure that all major habitats and topographic features were surveyed. For the 13 parcels less than 900 acres, transects were spaced 100 meters apart; for the larger five parcels, transects were spaced 400 meters apart. Surveyors walked each transect in a meandering fashion looking for target species, with special attention paid to areas of potential habitat. When an area of high potential habitat was located (e.g. a slickspot or playa

potentially containing the target peppergrass) a complete survey for the target species was made (BLM 2010).

Field surveys were floristic in nature. All plants observed in the project parcels were documented to the taxonomic level necessary to determine rarity and listing status. Surveys were conducted to ensure a high likelihood of locating all potential plant species, as all habitat types (see Land Cover Mapping) found in the project area parcels were surveyed. Observed sensitive plant species within the project parcels were recorded via a handheld GPS (Trimble Juno series) unit with a data dictionary based on site clearance survey forms by the BLM (2010).

Wildlife species encountered during the survey were also documented, with special attention paid to long-billed curlews (*Numenius americanus*) and ferruginous hawks (*Buteo regalis*) (especially during the nesting season). When observed, the spatial location and numbers observed were recorded via GPS.

### Land Cover Mapping

Land cover data for the project parcels was provided by the IDARNG. The land cover data was derived in 2012 and 2013 using remote sensing and based on RapidEye satellite imagery. The vegetation classification was performed by the BSU Boise Center Aerospace Laboratory (BCAL) (Spaete et al. 2013). The 2012 and 2013 land cover data was originally created for the OCTC and then expanded in 2015 to include most of the NCA, which includes all project area parcels.

## Environmental Features

### Hydrology, Landforms, and Natural Features

The vast majority of the NCA is located within the Snake River Plain, which is a generally flat undulating plain. Within the NCA, the Snake River Plain extends from Interstate 84 in the northeast, southwest to the Snake River Canyon (Figure 1). The Snake River Canyon contains steep basalt cliffs that drop, on average, over 350 feet from the top of the canyon to the Snake River. Generally, the project area parcels mirror the conditions of the NCA and Snake River Plain. The mean slope of 15 of the 18 parcels is less than 2%. The remaining three parcels (S11, S15 and S22, Figure 1) have a mean slope of greater than 15% due to their location which includes escarpments of the Snake River Canyon.

The 18 project parcels contain 26.8 miles of waterways (Table 3). These waterways are broken into two categories; intermittent and artificial path. Intermittent streams have flowing water periods during the wet season (winter-spring) but are normally dry during hot, summer months. Artificial paths are primarily ditches or altered stream channels used for irrigation purposes. The project area is dominated by intermittent streams, accounting for 25.4 miles (95%) of the total waterways. The remaining 1.4 miles (5%) of waterways are labeled as artificial paths. The Snake River, adjacent to but not included in Parcels S11, S15 and S22, is the only perennial flowing hydrologic feature near the study area.

**Table 3. NHD Flowlines Hydrographic Data for the Project Area Parcels**

Parcel	NHD Code	NHD Description	Count	Miles
S1	Hydrographic	Intermittent	2	0.1
S2	Hydrographic	Intermittent	7	0.8
S2	Artificial path		3	0.3
S8	Hydrographic	Intermittent	1	0.7
S11	Hydrographic	Intermittent	1	0.1
S18	Hydrographic	Intermittent	9	3.5
S21	Hydrographic	Intermittent	1	0.4
S22	Hydrographic	Intermittent	1	0.5
B1	Hydrographic	Intermittent	2	0.3
B2	Hydrographic	Intermittent	38	7.5
B2	Artificial path		1	1.1
B3	Hydrographic	Intermittent	1	1.3
B4	Hydrographic	Intermittent	7	1.0
B5	Hydrographic	Intermittent	1	0.1
B6	Hydrographic	Intermittent	4	1.4
X1	Hydrographic	Intermittent	1	0.1
X2	Hydrographic	Intermittent	25	7.6
X2	Artificial path		2	0.0
<b>Total</b>			<b>107</b>	<b>26.8</b>

Floodplains occur in the project parcels and were mapped (Figure 2) using the Federal Emergency Management Agency’s (FEMA) National Flood Hazard Layer (NFHL) which incorporates all Flood Insurance Rate Map (FIRM) databases (FEMA 2016). Ada and Elmore County data was used to quantify floodplain resources in the project parcels. Table 4 shows the acreage of floodplains per parcel. Not all parcels contain floodplains. Parcels S1, S8, S19, S20, S21, S22, B1, B5, and B6 are devoid of floodplains.

**Table 4. FEMA Flood Risk Mapping Acreage per Project Parcel**

Parcel	Flood Zone (FEMA)	Acres
S2	A	32.4
S11	A	12.8
S15	A	1.6
S18	A	42.4
B2	A	673.0
B3	A	49.3
B4	A	53.7
X1	A	1.4
X2	A	682.7
<b>Total</b>		<b>1549.3</b>

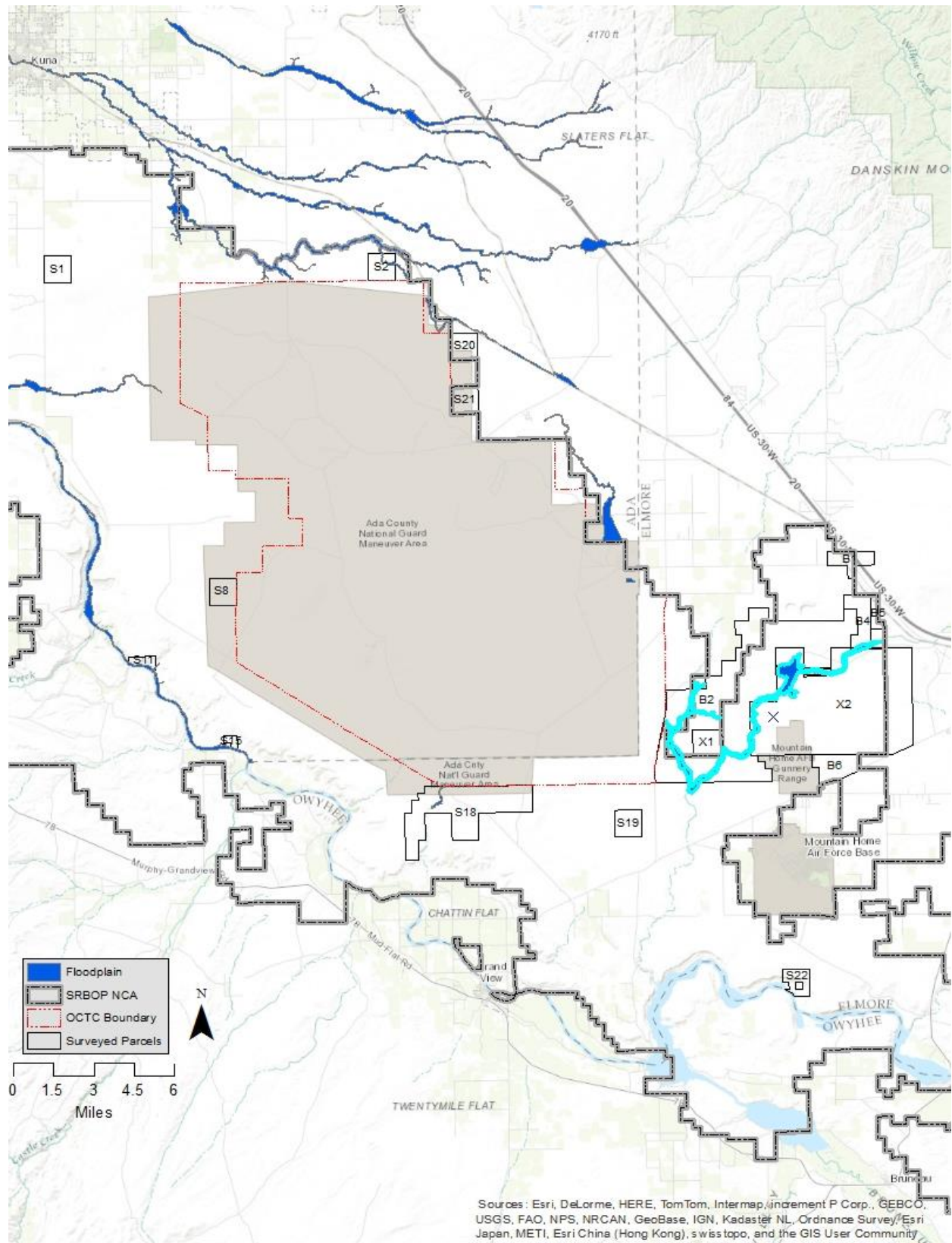


Figure 2. FEMA NFHL Mapping within Project Parcels

## Land Cover

Vegetative land cover of the project area is dominated by exotic and invasive species. Approximately 53% of the project area is covered by Cheatgrass (41.0%) and Exotic Annuals (11.7%) (Table 5). However, native land cover types that are important to resident and migratory wildlife (e.g. birds, ungulates) encompass a significant portion of the 18 parcels. Most notably, Sandberg Bluegrass (*Poa secunda*) occupies 14.2% of the project area, and Sagebrush (*Artemisia spp.*) covers 17.9%. Combined, these four land cover types comprise nearly 85% of the project area. The remaining 15% of the project area is divided among the 11 other land cover types, with Bare Ground (4.5%), Large Bunch Grass (2.8%), Rabbitbrush (2.6%) and Kochia (2.1%) encompassing the largest area. Only 7 acres (<1%) of water is found in the project area; permanent water occurs only near Parcels S11, S15 and S22, which are adjacent to the Snake River. Land cover was mapped for the project area in Figure 3.

**Table 5. Project Area Land Cover**

Land Cover	Acres	Percent
Agriculture	151.4	0.4
Bare Ground	1730.1	4.5
Cheatgrass	15929.3	41.0
Cinder Ground	292.9	0.8
Exotic Annuals	4546.6	11.7
Kochia	816.0	2.1
Large Bunch Grass	1085.1	2.8
Playa Ground	12.3	0.0
Rabbitbrush	998.0	2.6
Sagebrush	6938.4	17.9
Sandberg Bluegrass	5504.1	14.2
Shadscale Saltbush	494.6	1.3
Water	7.0	0.0
Winterfat	358.3	0.9
<b>Total</b>	<b>38,864.1</b>	<b>100.0%</b>

Land cover vegetation data per parcel is presented in Table 6. As expected, almost all the parcels have high percentages of Cheatgrass. Most notably Parcels S15, S18, S22, B5 and B6 are over 50% cheatgrass and Parcel S19 contains 81.9% cheatgrass. Percent cover of Exotic Annuals vary, but are highest in Parcels S8 (54%) and X1 (26.5%). Parcels S2, S11, S15, S20, S21 and B4 all have high percentages (around 40% or more) of sagebrush. Sandburg Bluegrass was most abundant in Parcels B6 (18.1%) and X2 (24.1%).

**Table 6. Land Cover (Vegetation) per Parcel**

Land Cover	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
	S1		S2		S8		S11		S15		S18	
Agriculture	0.5	0.1%	1.5	0.2%	2.5	0.4%	3.1	1.4%	0.3	0.2%	0.4	0.0%
Bare Ground	10.7	1.7%	1.2	0.2%	22.1	3.4%	12.7	5.6%	6.6	5.8%	63.7	1.5%
Cheatgrass	61.6	9.6%	253.9	39.4%	92.0	14.4%	85.6	37.8%	57.5	50.5%	2106.3	51.2%
Cinder Ground	0.0	0.0%	0.0	0.0%	0.0	0.0%	1.2	0.5%	0.0	0.0%	25.8	0.6%
Exotic Annuals	54.2	8.5%	5.9	0.9%	345.9	54.0%	6.0	2.6%	0.7	0.6%	275.7	6.7%
Kochia	220.0	34.3%	1.9	0.3%	24.1	3.8%	2.8	1.2%	1.3	1.1%	135.8	3.3%
Large Bunch	183.3	28.6%	1.1	0.2%	6.6	1.0%	0.1	0.0%	0.0	0.0%	0.4	0.0%
Playa Ground	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.9	0.4%	0.1	0.1%	0.2	0.0%
Rabbitbrush	53.0	8.3%	15.2	2.4%	1.1	0.2%	0.1	0.0%	0.0	0.0%	0.0	0.0%
Sagebrush	35.5	5.5%	353.4	54.8%	39.6	6.2%	110.7	48.9%	45.4	39.8%	1403.7	34.1%
Sandberg	17.6	2.7%	9.0	1.4%	4.0	0.6%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Shadscale	0.9	0.1%	0.8	0.1%	74.7	11.7%	0.9	0.4%	0.8	0.7%	65.0	1.6%
Water	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.2	0.1%	0.0	0.0%	0.0	0.0%
Winterfat	4.0	0.6%	0.8	0.1%	28.3	4.4%	2.4	1.0%	1.2	1.1%	39.2	1.0%
<b>Total</b>	<b>641.4</b>	<b>100%</b>	<b>644.7</b>	<b>100%</b>	<b>640.9</b>	<b>100%</b>	<b>226.5</b>	<b>100%</b>	<b>113.9</b>	<b>100%</b>	<b>4116.3</b>	<b>100%</b>
Land Cover	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
	S19		S20		S21		S22		B1		B2	
Agriculture	0.1	0.0%	6.2	1.0%	0.2	0.0%	0.7	0.1%	0.2	0.0%	43.1	0.3%
Bare Ground	3.8	0.6%	0.4	0.1%	0.1	0.0%	1.9	0.4%	14.2	2.2%	1231.2	9.4%
Cheatgrass	524.6	81.9%	159.4	25.0%	99.2	15.5%	273.4	53.3%	190.0	29.8%	5722.5	43.7%
Cinder Ground	4.6	0.7%	0.0	0.0%	0.1	0.0%	107.3	20.9%	2.1	0.3%	30.6	0.2%
Exotic Annuals	78.0	12.2%	10.4	1.6%	69.2	10.8%	6.5	1.3%	46.9	7.3%	2247.0	17.2%
Kochia	7.7	1.2%	3.0	0.5%	1.2	0.2%	1.1	0.2%	19.3	3.0%	248.3	1.9%
Large Bunch	1.1	0.2%	0.8	0.1%	4.8	0.7%	4.4	0.9%	14.9	2.3%	207.6	1.6%
Playa Ground	1.1	0.2%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.2	0.0%
Rabbitbrush	0.0	0.0%	43.2	6.8%	7.5	1.2%	0.4	0.1%	46.6	7.3%	209.4	1.6%
Sagebrush	2.1	0.3%	337.4	52.8%	415.2	64.9%	107.9	21.1%	245.9	38.5%	1085.4	8.3%
Sandberg	0.1	0.0%	77.1	12.1%	26.7	4.2%	0.2	0.0%	29.0	4.5%	1844.8	14.1%
Shadscale	10.4	1.6%	0.7	0.1%	14.7	2.3%	0.5	0.1%	14.5	2.3%	94.7	0.7%
Water	0.0	0.0%	0.0	0.0%	0.0	0.0%	6.8	1.3%	0.0	0.0%	0.0	0.0%
Winterfat	6.7	1.0%	0.0	0.0%	0.6	0.1%	1.2	0.2%	14.9	2.3%	119.1	0.9%
<b>Total</b>	<b>640.2</b>	<b>100%</b>	<b>638.6</b>	<b>100%</b>	<b>639.4</b>	<b>100%</b>	<b>512.4</b>	<b>100%</b>	<b>638.4</b>	<b>100%</b>	<b>13084.0</b>	<b>100%</b>

**Table 6 (continued). Land Cover (Vegetation) per Parcel**

Land Cover	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
	B3		B4		B5		B6		X1		X2	
Agriculture	0.1	0.1%	1.1	0.1%	0.1	0.1%	0.8	0.1%	0.3	0.0%	90.2	0.7%
Bare Ground	0.4	0.2%	1.1	0.1%	1.2	0.5%	14.9	1.6%	164.7	24.6%	179.3	1.3%
Cheatgrass	70.7	43.0%	356.8	37.1%	128.2	53.4%	531.4	56.6%	233.9	34.9%	4982.4	37.3%
Cinder Ground	0.0	0.0%	1.2	0.1%	39.2	16.3%	23.3	2.5%	0.0	0.0%	57.5	0.4%
Exotic Annuals	7.9	4.8%	66.6	6.9%	1.7	0.7%	67.7	7.2%	178.0	26.5%	1078.3	8.1%
Kochia	1.5	0.9%	34.1	3.6%	1.5	0.6%	4.3	0.5%	18.7	2.8%	89.6	0.7%
Large Bunch	3.2	1.9%	16.7	1.7%	0.9	0.4%	110.0	11.7%	2.0	0.3%	527.2	3.9%
Playa Ground	0.0	0.0%	0.0	0.0%	0.0	0.0%	1.5	0.2%	3.8	0.6%	4.6	0.0%
Rabbitbrush	6.2	3.8%	47.5	4.9%	1.0	0.4%	0.9	0.1%	0.0	0.0%	565.8	4.2%
Sagebrush	59.9	36.4%	381.8	39.8%	64.8	27.0%	2.1	0.2%	0.0	0.0%	2247.7	16.8%
Sandberg	8.5	5.2%	31.0	3.2%	0.2	0.1%	170.0	18.1%	65.3	9.7%	3220.4	24.1%
Shadscale	2.0	1.2%	9.6	1.0%	0.4	0.2%	5.0	0.5%	0.6	0.1%	198.4	1.5%
Water	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Winterfat	4.1	2.5%	13.0	1.4%	0.9	0.4%	7.1	0.8%	3.4	0.5%	111.2	0.8%
<b>Total</b>	<b>164.4</b>	<b>100%</b>	<b>960.5</b>	<b>100%</b>	<b>240.2</b>	<b>100%</b>	<b>938.9</b>	<b>100%</b>	<b>670.8</b>	<b>100%</b>	<b>13352.6</b>	<b>100%</b>



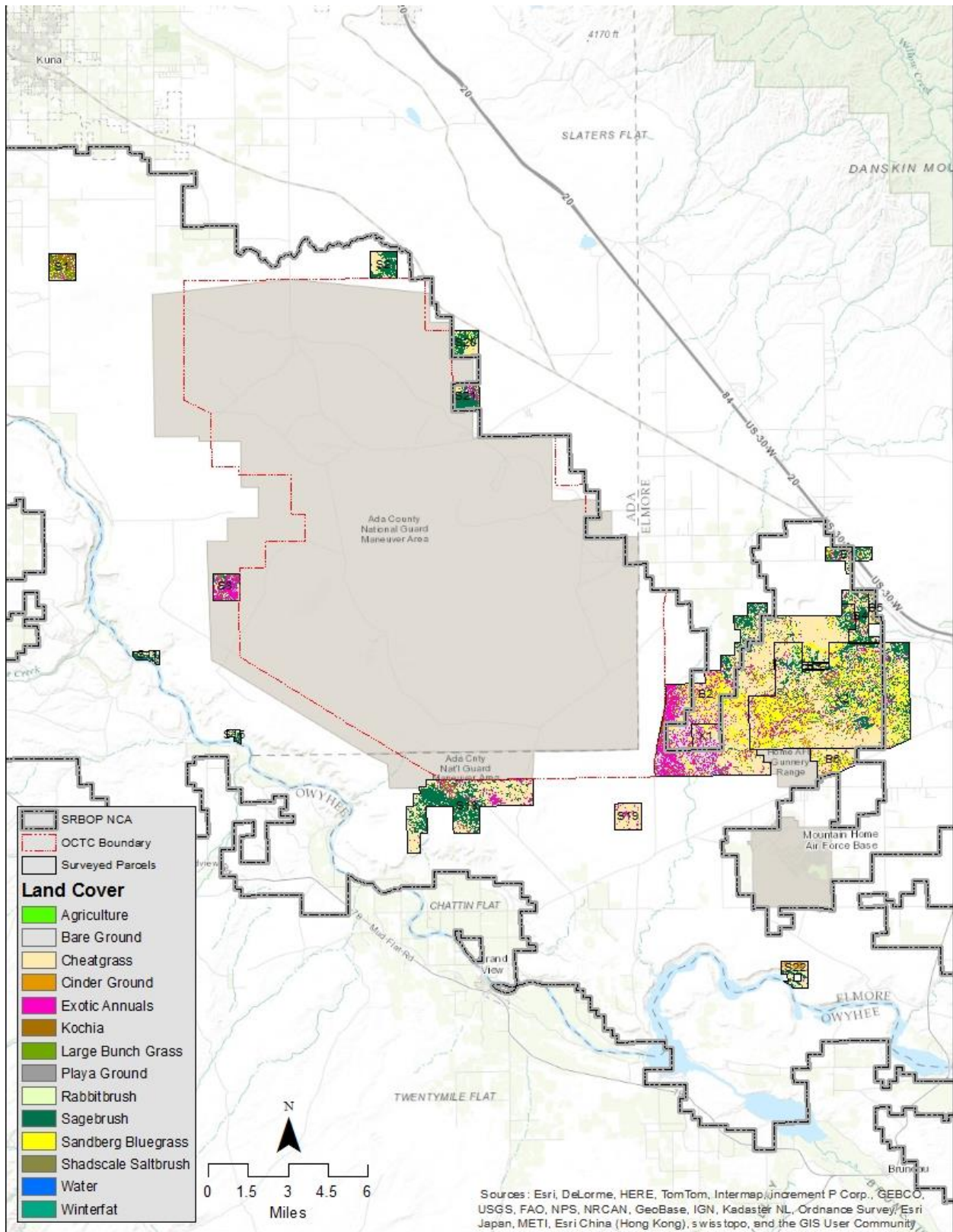


Figure 3. Land Cover (Vegetation) within the Project Parcels

## Land Cover Type Descriptions

The land cover classes were established by IDARNG based on remote sensing maps created by BSU (Spaete et al. 2013). The land cover types detailed below represent the dominant vegetation cover of each area surveyed.

### Agriculture

Agricultural land represents a small portion of land cover within the project area and is broadly defined as land used primarily for production of food and fiber. This land cover type consists of row crops, orchards, irrigated pasture and hay fields, dry farm crops and fallow fields.

### Bare Ground

This cover type includes paved, gravel and dirt roads, as well as bare ground. Roads within the project area are vectors for exotic and/or invasive weed species. Common species found along roadsides include: cheatgrass, rush skeletonweed (*Chondrilla juncea*), bur buttercup (*Ranunculus testiculatus*), Russian thistle (*Salsola kali*), tumble mustard (*Sisymbrium altissimum*), and flixweed (*Descurainia sophia*).

### Cheatgrass

Cheatgrass, a highly invasive grass, represents the most abundant cover type within the project area. Cheatgrass outcompetes native plants in part because it is a prolific seed producer (can germinate in spring or autumn), is tolerant of grazing, increases the intensity of wildfires and reestablishes quickly post-wildfire (Pellant 1996).



**Invasive cheatgrass represents over 40% of land cover in the project area (photo by Ecosystem Sciences).**

### Cinder Ground

The Cinder Ground cover type represents crushed cinder rock that is used for road cover and firing ranges throughout the OCTC due to its durability.

### Large Bunch Grass

There are two primary grass species that make up the Large Bunch Grass cover type: Crested wheatgrass (*Agropyron cristatum*) and Great Basin wildrye (*Leymus cinereus*). Both species are long-lived, drought-tolerant grasses with extensive root systems that are often planted as post-wildfire due to their ability to stabilize disturbed soils. Crested wheatgrass grows between 1 and 3 feet tall (Ogle 2006), while Great Basin wildrye grows between 3 to 6 feet tall (Ogle 2003).

### Exotic Annuals

The Exotic Annuals cover type is the fourth most common cover type within the project area. This cover type is dominated by exotic and often invasive plants. Species common within this cover type include rush skeletonweed, bur buttercup, cheatgrass, Russian thistle, flixweed and tumble mustard.

### Kochia

Kochia (*Bassia scopara*) is an introduced, annual forb that is shrub-like in appearance. It is adapted to semi-arid climates typical of the project area. As a primary cover type, Kochia represents a small percentage of land cover, though it is common throughout the study area within other cover types.

### Playa Ground

Playa Ground represents sparsely vegetated, flat-bottom depressions that are periodically covered by water. The slow infiltration of water coupled with high evaporation rates causes the deposition of salt, sand and mud along the surface and edges of the depression. Few plants are adapted to growing in playas, however Davis' peppergrass is found within this land cover type.



**Sandberg bluegrass is a native grass and the third most abundant land cover type (photo by S. Hagwood).**

### Sandberg Bluegrass

Sandberg bluegrass is a native perennial bunchgrass widespread throughout the western United States. It is highly adaptable and can be found in more than 20 ecoregions (Halvorson 2011). Sandberg bluegrass is drought-tolerant with extensive root systems, and is fairly resilient to grazing and trampling (Halvorson 2011). It is the third most abundant land cover type within the project area.

### Rabbitbrush

There are two species of rabbitbrush that consist of this cover type: green rabbitbrush (*Chrysothamnus viscidiflorus*) and gray rabbitbrush (*Ericameria nauseosus*). Rabbitbrush is generally subdominant in sagebrush communities, but can become widespread in areas of high disturbance, such as areas that receive heavy grazing or after wildfire, due to their ability to persist in coarse, alkaline soils (Tilley and St. John 2012).

### **Sagebrush**

There are five different sagebrush species known to occur within the NCA. Sagebrush was the second most abundant land cover type within the project area. The primary species documented was big sagebrush (*Artemisia tridentata*). Big sagebrush is a native shrub that provides important habitat for numerous animals, from big game to birds (Tilley et al. 2006). Big sagebrush often grows at low to mid elevations (600-1200 feet), but it is adaptable to a wide range of precipitation regimes and soil conditions (Tilley et al. 2006).



**Sagebrush, the second most abundant land cover type, provides critical habitat throughout the project area (photo by Farmartin).**

### **Shadscale Saltbush**

Shadscale saltbush (*Atriplex confertifolia*) is a native shrub that occurs in warm and cold shrub steppe environments throughout the western United States. It is highly drought tolerant, and can persist in poor soils, including saline soils (Tilley and S. John 2013). Shadscale saltbush is generally a subdominant species; only a small percentage of land cover was documented as shadscale-dominant.



**The Snake River near Parcel S11 (photo by Ecosystem Sciences).**

### **Water**

Water occurs throughout the project area in the form of ephemeral streams (washes), canals and stock ponds. The dominant water feature within the project area is the Snake River, which is adjacent to Parcels S11, S15 and S22.

### **Winterfat**

Winterfat (*Krascheninnikovia lanata*) is a low growing shrub that grows in desert shrub and pinyon communities at elevations ranging from

sea level to 10,000 feet (Ogle et al. 2003). Winterfat is considered a superior browse for livestock and wildlife due to its high protein content (Ogle et al. 2003). Winterfat has an extensive root system and can establish fairly easily on drastically disturbed sites or poorly developed soils (Ogle et al. 2003). Less than 1.0% of the land cover was predominantly winterfat, though it occurs as a subdominant species throughout the project area.

## Soils

The study area is located within the western Snake River Plain, a sub-section of the entire Snake River Plain province that covers most of southern Idaho. Soils in this area are a mix of weathered basalt from regional volcanic flows and lacustrine/alluvial deposits. Volcanic ash and silt (loess), clay, sand and gravel make up the majority of the soils found within areas that are level-to-gently sloping (< 8%), while basaltic outcrops are found along more steeply sloped areas (e.g., Parcels S11, S15 and S22, which contain escarpments from the edge of the terrace above the Snake River to the river channel). Due to low average annual precipitation, vegetation growth rates and low relief, soils in this area are slow to develop. Although variable, a layer of calcium carbonate is often present from 10 to 20 inches below the soil surface; depth to duripan is also variable, but generally ranges from 20 to 40 inches below surface. The dominant soil series found in the area (e.g., Colthorp, Power and Chilcott) are well drained (Table 7). Dominant land use within the study parcels is rangeland, with a small percentage used as irrigated cropland. See Appendix B for soil descriptions and their respective acreages/percent of total area by individual parcel.

**Table 7. Number of acres and percent of total area for each soil type (NRCS map unit description) found within the study area. All parcels are aggregated.**

Soil Unit Description	Acreage	Percentage
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	7611.59	18.52%
Colthorp stony silt loam, 0 to 8 percent slopes, very stony	6895.96	16.77%
Power-Jenness complex, 0 to 2 percent slopes	3032.43	7.38%
Chilcott-Power complex, 0 to 8 percent slopes	2771.05	6.74%
Tadpole-Strike complex, 0 to 2 percent slopes	2330.53	5.67%
Bahem-Minidoka-Trevino complex, 0 to 4 percent slopes	2288.28	5.57%
Chilcott silt loam, 0 to 4 percent slopes	1951.04	4.75%
Tadpole-Corder complex, 0 to 2 percent slopes	1490.05	3.62%
Power-Chardoton complex, 0 to 4 percent slopes	1444.08	3.51%
Lankbush-Jenness association, 0 to 4 percent slopes	1441.91	3.51%
Chilcott-Catchell-Chardoton complex, 0 to 4 percent slopes	1410.04	3.43%
Corder-Tadpole complex, 2 to 8 percent slopes	967.06	2.35%
Strike-Slickspots-Tadpole complex, 0 to 4 percent slopes	767.44	1.87%
Catchell-Chilcott-Banbury complex, 1 to 12 percent slopes	641.14	1.56%
Power-Purdam silt loams, 0 to 1 percent slopes	639.18	1.55%
Trevino-Garbutt-Strike complex, 2 to 8 percent slopes	526.88	1.28%
Power-McCain silt loams, 2 to 4 percent slopes	509.77	1.24%
Colthorp-Kunaton complex, 0 to 8 percent slopes	407.86	0.99%
Tadpole silt loam, 0 to 2 percent slopes	353.98	0.86%
Bowns-Rock outcrop complex, 0 to 15 percent slopes	343.14	0.83%
Power-McCain silt loams, 0 to 2 percent slopes	315.89	0.77%
Chattin-Slickspots complex, 0 to 4 percent slopes	300.65	0.73%
Garbutt-Trevino association, 4 to 20 percent slopes	266.43	0.65%
Chardoton-Xeric Natrargids silty clay loams, 0 to 2 percent slopes	241.28	0.59%
Power silt loam, 0 to 2 percent slopes	180.26	0.44%
Timmerman loamy sand, 2 to 20 percent slopes, rubbly	133.57	0.32%
Garbutt silt loam, 0 to 4 percent slopes	131.36	0.32%
Chilcott-Seabee complex, bedrock substratum, 2 to 4 percent	120.27	0.29%

Soil Unit Description	Acreage	Percentage
Colthorp-Kunaton-Rubble land complex, 8 to 20 percent slopes	109.05	0.27%
Vanderhoff soils, 30 to 60 percent slopes	99.49	0.24%
Typic Torriorthents-Rubble land complex, 35 to 90 percent slopes	89.11	0.22%
Bowns loam, 0 to 8 percent slopes, stony	88.12	0.21%
Xeric Torriorthents and Xerollic Camborthids, 8 to 20 percent slopes	86.30	0.21%
Royal-Truesdale fine sandy loams, 0 to 4 percent slopes	81.30	0.20%
Chardoton-Power complex, 0 to 2 percent slopes	80.57	0.20%
Truesdale fine sandy loam, 0 to 2 percent slopes	80.31	0.20%
Tadpole-Purdam-Trevino complex, 0 to 5 percent slopes	66.87	0.16%
Tadpole-Scism complex, 8 to 20 percent slopes	63.47	0.15%
Rubble land	59.31	0.14%
McCain stony silt loam, 2 to 4 percent slopes, extremely stony	55.52	0.14%
Cinder land	53.86	0.13%
Rock outcrop-Trevino complex, 5 to 20 percent slopes	49.87	0.12%
Minidoka-Minveno silt loams, 0 to 4 percent slopes	49.85	0.12%
Potratz-Trevino complex, 4 to 12 percent slopes	46.72	0.11%
Banbury-McPan-Rock outcrop complex, 2 to 15 percent slopes	46.60	0.11%
Corder-Tadpole complex, 4 to 25 percent slopes	44.90	0.11%
Chilcott-Brent silt loams, 0 to 2 percent slopes	41.09	0.10%
Chilcott-Chardoton complex, 0 to 4 percent slopes	33.35	0.08%
Truesdale fine sandy loam, 0 to 4 percent slopes	32.56	0.08%
Bahem silt loam, 0 to 4 percent slopes	29.39	0.07%
Baldock loam, 0 to 2 percent slopes	28.32	0.07%
Truesdale fine sandy loam, 4 to 8 percent slopes	25.90	0.06%
Brent loam, low rainfall, 2 to 4 percent slopes	24.50	0.06%
Rock outcrop-Rubble land association	20.32	0.05%
Minveno-Minidoka silt loams, 0 to 8 percent slopes, stony	18.58	0.05%
Trevino-Potratz complex, 0 to 4 percent slopes	18.37	0.04%
Dolman-Minveno-Scism complex, 0 to 8 percent slopes	18.14	0.04%
Garbutt-Strike-Trevino complex, 2 to 8 percent slopes	17.79	0.04%
Chilcott-Sebree complex, bedrock substratum, 0 to 2 percent	11.80	0.03%
Water	9.55	0.02%
Potratz silt loam, 2 to 4 percent slopes	6.60	0.02%
Badland, 1 to 8 percent slopes	3.66	0.01%
Scism silt loam, bedrock substratum, 0 to 2 percent slopes	2.36	0.01%
Kunaton silt loam, 0 to 4 percent slopes	1.54	0.004%
Typic Torriorthents-Rubble land complex, 20 to 70 percent slopes	0.94	0.002%
Playas, 0 to 1 percent slopes	0.03	0.0001%
<b>Total</b>	<b>41,109.12</b>	<b>100%</b>

## Vegetation

### Historically Observed Plant Species

A comprehensive list of plant species known to occur within and around the project area was provided by IDARNG and is located in Appendix A.

### Historically Observed Special Status Plant Species

There are seven special status plants that have been documented within the project parcels (Table 8) according to IFWIS and prior surveys by the IDARNG. These plants include slickspot peppergrass (*Lepidium papilliferum*), Davis' peppergrass (*Lepidium davisii*), desert pincushion (*Chaenactis stevioides*), Janish's penstemon (*Penstemon janishiae*), Packard's buckwheat (*Eriogonum shockleyi*), white eatonella (*Eatonella nivea*), and wovenspore lichen (*Texosporium sancti-jacobi*).

#### Slickspot Peppergrass (*Lepidium papilliferum*)

Slickspot peppergrass has been documented in the project parcels, with populations found in parcels S1 (4), S2 (3), S20 (1), S21 (1) and B2 (1) (Table 8). Slickspot peppergrass was recently reinstated as threatened under the Endangered Species Act by the U.S. Fish and Wildlife Service (USFWS 2016) and is ranked as S1 "critically imperiled" in the State of Idaho.

Slickspot peppergrass is a small, flowering plant in the mustard family (Brassicaceae). It is a tap-rooted plant with intricate branches and small wedge-shaped leaves that are covered with fine, soft hairs (St. John and Ogle 2009). It blooms from April to June with numerous, small white flowers that are only 0.1 inches in diameter (St. John and Ogle 2009). As its name suggests, it is specialized to occupy a specific microhabitat referred to as "slickspots", which are small depressions in the soil that collect water due to an underlying clay layer (St. John and Ogle 2009). These slickspots occur within sagebrush-steppe communities, almost exclusively in



**Slickspot Peppergrass (photo by Ecosystem Sciences)**

southwestern Idaho (St. John and Ogle 2009). Slickspots are mostly devoid of vegetation and have a smooth, pan-like surface.

**Table 8. Historic Sensitive Plant Species Occurrences from IFWIS Database In and Adjacent to the Project Area Parcels**

Common Name	Scientific Name	State Rank	Populations per Project Area Parcels																	
			S1	S2	S8	S11	S15	S18	S19	S20	S21	S22	B1	B3	B4	B5	X1	X2	B6	B2
Slickspot Peppergrass	<i>Lepidium papilliferum</i>	S1	4	3						1	1									1
Davis' Peppergrass	<i>Lepidium davisii</i>	S3							3								2	1	1	1
Desert Pincushion	<i>Chaenactis stevioides</i>	S2						2												
Janish's Penstemon	<i>Penstemon janishiae</i>	S2						1												
Packard's Buckwheat	<i>Eriogonum shockleyi</i> <i>var. packardae</i>	S2			1															
White Eatonella	<i>Eatonella nivea</i>	S3																		2
Wovenspore Lichen	<i>Texosporium sancti-jacobi</i>	S2		1							1									
<b>Total</b>			<b>4</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>

State ranking: S1 = critically imperiled; S2 = imperiled; S3 = vulnerable



### Davis' Peppergrass (*Lepidium davisii*)

Davis' peppergrass has several occurrences in the project area, with populations found in parcels S19 (3), X1 (2), X2 (1) B6 (1), and B2 (1) (Table 8).



Davis' Peppergrass (photo by Oregon Dept. of Ag)

Davis' peppergrass is a deep-rooted, flowering perennial plant of the mustard family (Brassicaceae). It grows in low clumps with numerous, finely-haired stems that can become quite "woody" (Hagwood 2006). Each stem grows leathery leaves that are green to gray in color (Hagwood 2006). Davis' peppergrass flowers from May to June, producing several dozen four-petaled, white flowers in each inflorescence (ODA n.d.). This species grows in

playas with clay hardpan soils that collect water in the early spring and dry out by early summer (ODA n.d.). It is found in southwest Idaho, southeastern Oregon and northern Nevada (Hagwood 2006; ODA n.d.). Davis' peppergrass is not federally listed, but has S3 "vulnerable" status in Idaho.

### Desert Pincushion (*Chaenactis stevioides*)

Desert pincushion has been documented in Parcel S18 (2) and Parcel B2 (2) (Table 8). Desert pincushion is an annual herb that occurs in open, usually sandy soils, in semi-arid desert habitats. It grows up to 18 inches tall with open airy branches (Hagwood 2006). Its leaves grow at the base and lower portion of the stem and are divided into 4 to 8 pairs of narrow lobes.

Both the leaves and stem are green but can have a purple tint (The American Southwest n.d.). It flowers from May to June. Similar to other members of its family, Sunflower (Asteraceae), it produces spherical, densely packed clusters of white flowers that resemble a pincushion (The American Southwest n.d.). It occurs in several states within the Western U.S., but is ranked as S2 "imperiled" in the State of Idaho.



Desert Pincushion (photo by Max Licher)

### Janish's Penstemon (*Penstemon janishiae*)

Janish's penstemon has been documented in the Parcel S18 close to the Snake River Canyon (Table 8).



Janish's Penstemon (Photo by C.L. Christie)

Janish's penstemon is a perennial herb that grows in clay, volcanic soils within sagebrush communities (Hagwood 2006). It grows up to 9 inches tall with several upright stems that are finely haired; each stem has long, green leaves that grow opposite along the stem (Hagwood 2006). The flowers are covered in hairs, snapdragon-like, and colored pink to purple with an orange-yellow staminode (Wetherwax and Holmgren 2016). It is native to the western United States in sections of Idaho, Oregon,

Nevada and northern California (Wetherwax and Holmgren 2016). It is ranked as S2 "imperiled" in the State of Idaho.

### Packard's Buckwheat (*Eriogonum shockleyi* var. *packardae*)

Packard's buckwheat has been documented in Parcel S8 adjacent to the OCTC (Table 8). Packard's

buckwheat is a perennial herb endemic to southwest Idaho near the Snake River in Ada and Canyon Counties (Hagwood 2006). It grows in primarily oolitic limestone outcrops and sandy loess soils within mixed desert shrub and sagebrush communities (Hagwood 2006). It grows in a low, dense mat with short, narrow, elliptic leaf blades that have a white to grey cast (Hagwood 2006). The flowering period is May to June with creamy white flowers that appear to sit within the cushion (Hagwood 2006).



Packard's Buckwheat (photo by IDFG)

Packard's buckwheat has S2 "imperiled" status within the State of Idaho.

### White Eatonella (*Eatonella nivea*)

White eatonella has been documented in parcel B2 and includes 2 populations (Table 8). White



White Eatonella (photo by Utah State University)

eatonella is a small, annual herb that grows in dry, sandy or volcanic soils within salt desert shrub habitats (Hagwood 2006). Pale green, ovate leaves branch from the base forming densely packed tufts only 1 to 2 centimeters tall (Hagwood). It flowers from May to July. The flower stems are partially concealed by the leaves; flowers are white to pink/purple with seven or more petals (Hagwood 2006; Camp and Gamon 2011). White eatonella is an ephemeral annual that grows depending on temperature and available spring moisture;

some years it may not appear at all (Camp and Gamon 2011). White eatonella has S3 “vulnerable” status within the State of Idaho.

### Wovenspore Lichen (*Texosporium sancti-jacobi*)

Wovenspore lichen has been documented in parcels S2 and S21 (Table 8). Wovenspore lichen occurs with biotic crusts on flat or north facing slopes in arid and semi-arid habitats (Hagwood 2006; USFS n.d.). The thin thallus crust is powdery white to grey; the cup-shaped apothecia is olive green (Hagwood). The apothecia grow in clusters that are generally less than 1 centimeter in diameter (USFS n.d.) It grows directly on decomposed hummus, soil or moss (Hagwood 2006; USFS n.d.). It is found in south-central Washington, central Oregon, southern Idaho, and central and southern California, with the largest concentration of known populations occurring in Ada and Elmore Counties in Idaho (USFS n.d.). Wovenspore lichen has S2 “imperiled” ranking in the State of Idaho. This species is being surveyed in a separate study.



Wovenspore Lichen (photo by Scott Loring)

### Observed Plant Species from Field Surveys

All plants encountered during the field surveys were identified to the taxonomic level necessary to determine rarity and listing status. See Table 9 for the comprehensive list of plant species encountered.

**Table 9. Plant Species Observed During Field Surveys**

Common Name	Scientific Name
<b>Trees</b>	
Russian olive	<i>Elaeagnus angustifolia</i>
<b>Shrubs</b>	
Big sagebrush	<i>Artemisia tridentata</i>
Budsage	<i>Artemisia spinescens</i>
Gardner's saltbush	<i>Atriplex gardneri</i>
Greasewood	<i>Sarcobatus vermiculatus</i>
Green (yellow ) rabbitbrush	<i>Chrysothamnus viscidiflorus</i>
Horsebrush	<i>Tetradymia glabrata</i>
Rubber (gray) rabbitbrush	<i>Ericameria nauseosa</i>
Shadscale	<i>Atriplex confertifolia</i>
Spiny hopsage	<i>Grayia spinosa</i>
Winterfat	<i>Krascheninnikovia lanata (Ceratoides lanata)</i>
<b>Forbs</b>	
Annual sunflower	<i>Helianthus annuus</i>
Branched lagophylla	<i>Lagophylla ramosissima</i>
Bristly fiddleneck	<i>Amsinckia tessellata</i>
Broom snakeweed	<i>Gutierrezia sarothrae</i>
Bur buttercup	<i>Ranunculus testiculatus</i>
Burningbush (kochia)	<i>Bassia scoparia (Kochia scoparia)</i>
Bushy blazingstar	<i>Mentzelia dispersa</i>
Canada thistle	<i>Cirsium arvense</i>
Clasping peppergrass	<i>Lepidium perfoliatum</i>
Curly dock	<i>Rumex crispus</i>
Currant leaf globemallow	<i>Sphaeralcea grossulariifolia</i>
Cutleaf nightshade	<i>Solanum triflorum</i>
Davis' peppergrass	<i>Lepidium davisii</i>
Death camas	<i>Zygadenus paniculatus</i>
Desert parsley	<i>Lomatium grayi</i>
Douglas pincushion	<i>Chaenactis douglassii</i>
Flatspine stickseed	<i>Lappula occidentalis</i>
Flixweed	<i>Descurainia sophia</i>
Halogeton	<i>Halogeton glomeratus</i>
Low pussytoes	<i>Antennaria dimorpha</i>
Mexican whorled milkweed	<i>Asclepias verticillata</i>
Munro's globemallow	<i>Sphaeralcea munroana</i>
Pinnate tansymustard	<i>Descurainia pinnata</i>
Povertyweed	<i>Iva axillaris</i>
Prickly lettuce	<i>Lactuca serriola</i>

Common Name	Scientific Name
<b>Forbs (continued)</b>	
Prostrate pigweed	<i>Amaranthus albus</i>
Prostrate vervain	<i>Verbena bracteata</i>
Purple aster	<i>Machaeranthera canescens</i>
Red sorrel	<i>Rumex acetosella</i>
Redstem filaree (storksbill)	<i>Erodium cicutarium</i>
Rush skeletonweed	<i>Chondrilla juncea</i>
Russian thistle	<i>Salsola kali</i>
Rydberg's penstemon	<i>Penstemon rydbergii</i>
Scabland (hotrock) penstemon	<i>Penstemon deustus</i>
Showy milkweed	<i>Asclepias speciosa</i>
Showy penstemon	<i>Penstemon speciosus</i>
Silvery lupine	<i>Lupinus argenteus</i>
Skeletonweed	<i>Lygodesmia juncea</i>
Slickspot peppergrass	<i>Lepidium papilliferum</i>
Smoothstem blazingstar	<i>Mentzelia laevicaulis</i>
Sulphurflower buckwheat	<i>Eriogonum umbellatum</i>
Tall annual willowherb	<i>Epilobium brachycarpum</i>
Tapertip hawksbeard	<i>Crepis acuminatum</i>
Tumble mustard	<i>Sisymbrium altissimum</i>
Turkey mullein	<i>Croton setigerus</i>
Whitetop	<i>Cardaria draba</i>
Wilcox's woollystar	<i>Eriastrum wilcoxii</i>
Woollypod milkvetch	<i>Astragalus purshii</i> var. <i>purshii</i>
Yarrow	<i>Achillea millefolium</i>
Yellow salsify	<i>Tragopogon dubius</i>
<b>Grasses</b>	
Bottlebrush squirreltail	<i>Elymus elymoides</i>
Bulbous bluegrass	<i>Poa bulbosa</i>
Cheatgrass	<i>Bromus tectorum</i>
Crested wheatgrass	<i>Agropyron cristatum</i>
Great Basin wildrye	<i>Leymus cinereus</i>
Indian ricegrass	<i>Achnatherum hymenoides</i>
Intermediate wheatgrass	<i>Thinopyrum intermedium</i>
Needle-and-thread grass	<i>Heterostipa comata</i>
Sandberg bluegrass	<i>Poa secunda</i>
Six-weeks fescue	<i>Vulpia octoflora</i>
Thurber's needlegrass	<i>Achnatherum thurberianum</i>
<b>Graminoids</b>	
Tapertip rush	<i>Juncus acuminatus</i>

## Observed Special Status Plant Species from Field Surveys

A total of 24 populations of special status plants were documented during site clearances (Table 10 and Figure 4). Seventeen occurrences of slickspot peppergrass populations were found in Parcels S1 (14) and S2 (3). A total of seven Davis' peppergrass populations were found in Parcels S19 (3), B6 (2), X1 (1) and X2 (1).

**Table 10. Special status plant species populations in and adjacent to the project area parcels**

Common Name	Scientific Name	State Rank	Populations per Project Area Parcel						Total
			S1	S2	S19	B6	X1	X2	
Slickspot peppergrass	<i>Lepidium papilliferum</i>	S1	14	3					17
Davis' peppergrass	<i>Lepidium davisii</i>	S3			3	2	1	1	7
<b>Total</b>			<b>14</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>24</b>

State ranking: S1 = critically imperiled; S2 = imperiled; S3 = vulnerable

Ten new populations of slickspot peppergrass were identified in Parcel S1 compared to historical data. The slickspot peppergrass populations located in Parcel S2 were in the same general location as historic surveys. Populations of slickspot peppergrass were not found in Parcels S20, S21 and B2; these populations were last observed in 2007 and 2008.

Since Davis' peppergrass primarily grows in playas, many of the populations identified during the site clearances closely match historical occurrences. Populations found in Parcel S19 match historic location records. One large playa in B6 still supports Davis' peppergrass; another population was found in a much smaller playa that was not previously recorded. One of the populations in Parcel X1 matches prior surveys, while one of the playas no longer supports Davis' peppergrass (last observed in 2012). The population in Parcel X2 matches previous records in the same location. Davis' peppergrass was found in Parcel B2 in 2004, but was not observed in Parcel B2 during this survey.

Populations of Janish's penstemon, Packard's buckwheat, desert pincushion and white eatonella were not found during the site clearances. Janish's penstemon was last observed in 1938 within a large area that includes only a small portion of Parcel S18. Likewise, Packard's buckwheat was last observed in 1971, with only a small portion of its range located within Parcel S8. Desert pincushion was last observed in 2000 in Parcel S18. White eatonella was last observed in Parcel B2 in 2000.

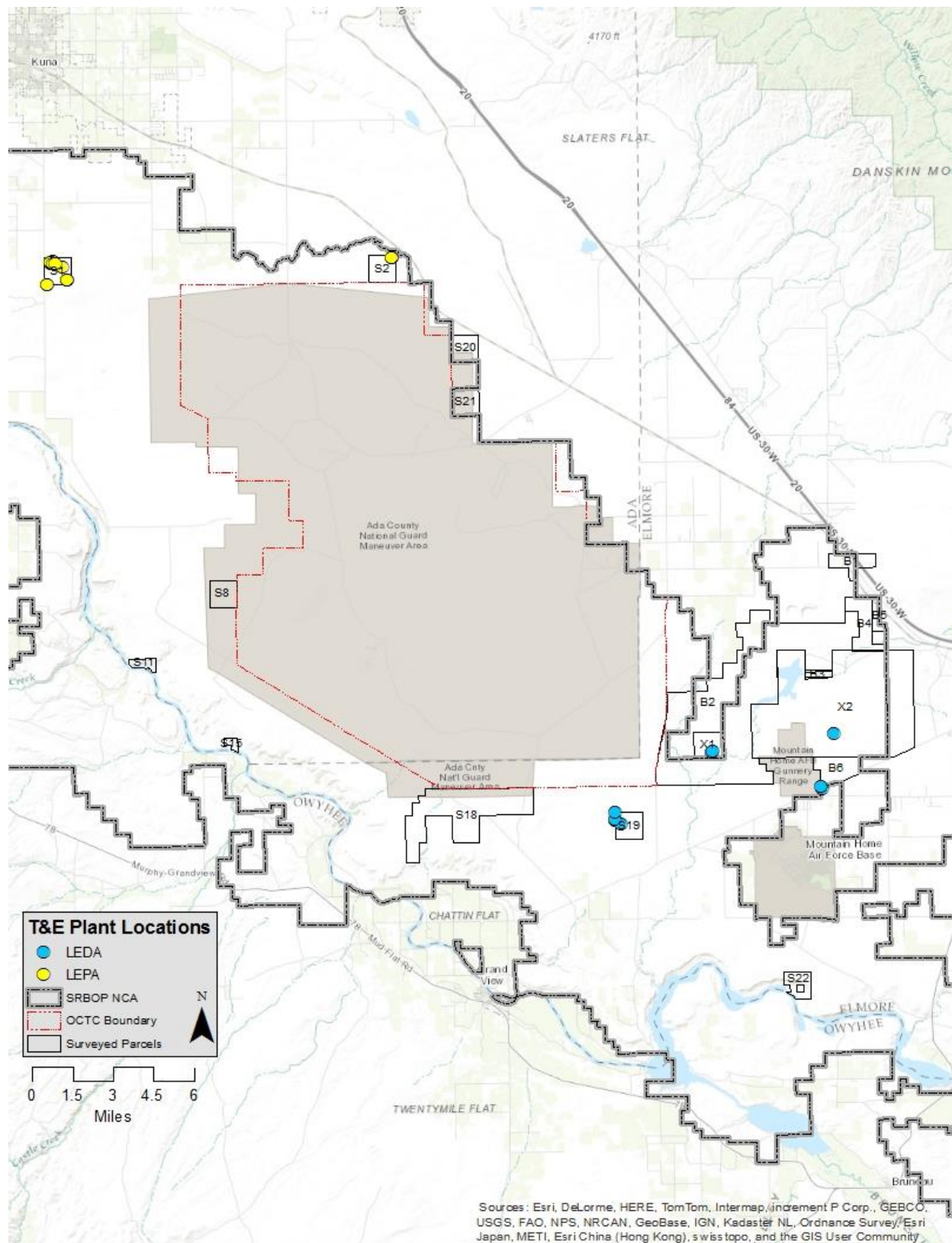


Figure 4. Occurrences of Davis' peppergrass (*Lepidium davisii* [LEDA]) and slickspot peppergrass (*Lepidium papilliferum* [LEPA]) located within and adjacent to project parcels.

## Fish and Wildlife

### Historically Observed Fish and Wildlife Species

Data on fish and wildlife species known to occur in the project area was provided by the IDARNG and based on data from the Idaho Fish and Wildlife Information System (IFWIS). The only fish species recorded near the project area is white sturgeon (*Acipenser transmontanus*); it is found in the Snake River adjacent to Parcels S11, S15 and S22 but does not actually occur in the project area.

The project area parcels are home to a variety of wildlife (Table 11). The data supplied by IDARNG indicate that Parcels S1, S11, S22 and B2 contain the most wildlife species, ranging from 37 to 56 total observations. Parcel S1 had the highest diversity of birds, with over a dozen species observed. Parcels S11 and S22 both contained 37 overall species occurrences, but most of these accounts were of the prairie falcon (*Falco mexicanus*). Similarly, Parcel S2 contained 19 accounts of one species, the ferruginous hawk. Parcel B2 was most diverse and second-most abundant, containing a variety of wildlife types including several reptile species; Parcel B2 is also the largest project parcel. Parcels S18 and S21 contained mammal species, which differentiates it from the other parcels in which no mammals were noted. Parcels S8, S19, B1, B4, X1, X2 and B6 all had few sightings, primarily birds of prey. Parcels S15, S20, B3 and B5 had no recorded species.

### Observed Wildlife Species from Field Surveys

Numerous wildlife species were observed during the course of the survey. Not all wildlife observed were identified to the species level; those that were identified at this taxonomic level are listed in Table 12.

Most of the species identified are ranked as secure (S5) or apparently secure (S4) within the State of Idaho (Table 12). Western rattlesnakes (*Crotalus oreganus*), ranked as apparently secure (S4), were encountered approximately 11 times during the field surveys. They were encountered (visually and aurally) in Parcels B2 and X2 in late July and early August.



Sagebrush Lizard (photo by Ecosystem Sciences)

Species identified with a vulnerable (S3) ranking or higher include: golden eagle (*Aquila chrysaetos*), long-billed curlew, ferruginous hawk, sage thrasher (*Oreoscoptes montanus*), American white pelican (*Pelecanus erythrorhynchos*), and burrowing owl (*Athene cunicularia*).

As requested by IDARNG, sightings of long-billed curlew and ferruginous hawks were documented via GPS to mark the spatial location and record the numbers observed (Table 13 and Figure 5).



**Table 11. Historic Wildlife Observations from IFWIS Database per Project Area Parcel.**

Common Name	Scientific Name	Taxa Group	State Rank	Project Area Parcels																	
				S1	S2	S8	S11	S15	S18	S19	S20	S21	S22	B1	B2	B3	B4	B5	B6	X1	X2
Golden eagle	<i>Aquila chrysaetos</i>	Aves-Accipitriformes	S3	2																	
American kestrel	<i>Falco sparverius</i>	Aves-Falconiformes	S4	1																	
Ferruginous hawk	<i>Buteo regalis</i>	Aves-Falconiformes	S3B		19				5	2			6		14				7	4	
Merlin	<i>Falco columbarius</i>	Aves-Falconiformes	S4						1						4						
Northern harrier	<i>Circus cyaneus</i>	Aves-Falconiformes	S4	3											1						
Prairie falcon	<i>Falco mexicanus</i>	Aves-Falconiformes	S4				36						31								
Red-tailed hawk	<i>Buteo jamaicensis</i>	Aves-Falconiformes	S4	4																	
American goldfinch	<i>Carduelis tristis</i>	Aves-Passeriformes	S5	1																	
Black-billed magpie	<i>Pica hudsonia</i>	Aves-Passeriformes	S5	1																	
Brewer's sparrow	<i>Spizella breweri</i>	Aves-Passeriformes	S4B	14																	
Common raven	<i>Corvus corax</i>	Aves-Passeriformes	S5	7											1						
Horned lark	<i>Eremophila alpestris</i>	Aves-Passeriformes	S5	14											2						
Sage sparrow	<i>Amphispiza belli</i>	Aves-Passeriformes	S3B	2																	
Sage thrasher	<i>Oreoscoptes montanus</i>	Aves-Passeriformes	S3B	1																	
Western meadowlark	<i>Sturnella neglecta</i>	Aves-Passeriformes	S5	6											1						
Barred owl	<i>Strix varia</i>	Aves-Strigiformes	S4				1														
Burrowing owl	<i>Athene cunicularia</i>	Aves-Strigiformes	S2B							1			4	11		2				1	
Fairy shrimp*	<i>Branchinecta</i>	Invertebrate	N/A																	1	
Tiger beetle	<i>Cicindela plutonica</i>	Invertebrate	S2															1	1		
American badger	<i>Taxidea taxus</i>	Mammalia	S4						1												
Deer mouse	<i>Peromyscus maniculatus</i>	Mammalia	S5						1												
Ord's kangaroo rat	<i>Dipodomys ordii</i>	Mammalia	S4						1												
Piute ground squirrel	<i>Urocitellus mollis</i>	Mammalia	S4						2			1									
Desert horned lizard	<i>Phrynosoma platyrhinos</i>	Reptilia	S4												4						
Gopher snake	<i>Pituophis catenifer</i>	Reptilia	S5												2						
Ground snake	<i>Sonora semiannulata</i>	Reptilia	S3						2												
Long-nosed lizard	<i>Gambelia wislizenii</i>	Reptilia	S4												1						
Prairie rattlesnake	<i>Crotalus viridis</i>	Reptilia	S4												3						
Sagebrush lizard	<i>Sceloporus graciosus</i>	Reptilia	S5												1						
Side-blotched lizard	<i>Uta stansburiana</i>	Reptilia	S4												1						
Western whiptail	<i>Aspidoscelis tigris</i>	Reptilia	S4			1									1						
<b>Total</b>				<b>56</b>	<b>19</b>	<b>1</b>	<b>37</b>	<b>0</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>37</b>	<b>4</b>	<b>47</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>6</b>

\*Does not indicate species. State Ranking: S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = Secure; B = conservation status for breeding population only.

**Table 12. Wildlife Observed During Field Surveys.**

Common Name	Scientific Name	Taxa Group	State Rank
Golden eagle	<i>Aquila chrysaetos</i>	Aves-Accipitriformes	S3
California gull	<i>Larus californicus</i>	Aves-Charadriiformes	S5
Long-billed curlew	<i>Numenius americanus</i>	Aves-Charadriiformes	S2B
Ferruginous hawk	<i>Buteo regalis</i>	Aves-Falconiformes	S3B
Northern harrier	<i>Circus cyaneus</i>	Aves-Falconiformes	S4
Red-tailed hawk	<i>Buteo jamaicensis</i>	Aves-Falconiformes	S4
Bank swallow	<i>Riparia riparia</i>	Aves-Passeriformes	S4B
Brewer's sparrow	<i>Spizella breweri</i>	Aves-Passeriformes	S4B
Cliff swallow	<i>Petrochelidon pyrrhonota</i>	Aves-Passeriformes	S5B
Common raven	<i>Corvus corax</i>	Aves-Passeriformes	S5
Horned lark	<i>Eremophila alpestris</i>	Aves-Passeriformes	S5
Rock wren	<i>Salpinctes obsoletus</i>	Aves-Passeriformes	S5B
Sage thrasher	<i>Oreoscoptes montanus</i>	Aves-Passeriformes	S3B
White pelican	<i>Pelecanus erythrorhynchos</i>	Aves-Pelecaniformes	S3B
Burrowing owl	<i>Athene cunicularia</i>	Aves-Strigiformes	S2B
Short-eared owl	<i>Asio flammeus</i>	Aves-Strigiformes	S4
American badger	<i>Taxidea taxus</i>	Mammalia	S4
Black-tailed jackrabbit	<i>Lepus californicus</i>	Mammalia	S5
Coyote	<i>Canis latrans</i>	Mammalia	S5
Mouse	<i>Unknown sp.</i>	Mammalia	NA
Mule deer	<i>Odocoileus hemionus</i>	Mammalia	S5
Ord's kangaroo rat	<i>Dipodomys ordii</i>	Mammalia	S4
Piute ground squirrel	<i>Spermophilus mollis</i>	Mammalia	S4
Pronghorn antelope	<i>Antilocapra americana</i>	Mammalia	S5
Gopher snake	<i>Pituophis catenifer</i>	Reptilia	S5
Sagebrush lizard	<i>Sceloporus graciosus</i>	Reptilia	S5
Side-bloched lizard	<i>Uta stansburiana</i>	Reptilia	S4
Western rattlesnake	<i>Crotalus oreganus</i>	Reptilia	S4

State Ranking: S2 = imperiled; S3 = vulnerable; S4 = apparently secure; S5 = Secure; B = conservation status for breeding population only.

During the field survey, three ferruginous hawks were seen in parcels S8 and S18. The ferruginous hawk in Parcel S8 was observed landing within the parcel. The ferruginous hawks in Parcel S18 were seen flying and calling near a nest box located on a telephone pole within the parcel.

A total of 22 long-billed curlews were observed during the field surveys in parcels S2, S18 and B2. The majority of long-billed curlew sightings were fly overs. Four long-billed curlews were spotted foraging in Parcel S2 and one in Parcel S18.

**Table 13. Incidental Observations of Ferruginous Hawk and Long-billed Curlew During Field Survey.**

Common Name	Scientific Name	State Rank	Observations per Parcel				Total
			S2	S8	S18	B2	
Ferruginous hawk	<i>Buteo regalis</i>	S3B		1	2		3
Long-billed curlew	<i>Numenius americanus</i>	S2B	8		10	4	22
<b>Total</b>			<b>8</b>	<b>1</b>	<b>12</b>	<b>4</b>	<b>25</b>

State ranking: S2 = imperiled; S3 = vulnerable; B = conservation status for breeding population only.

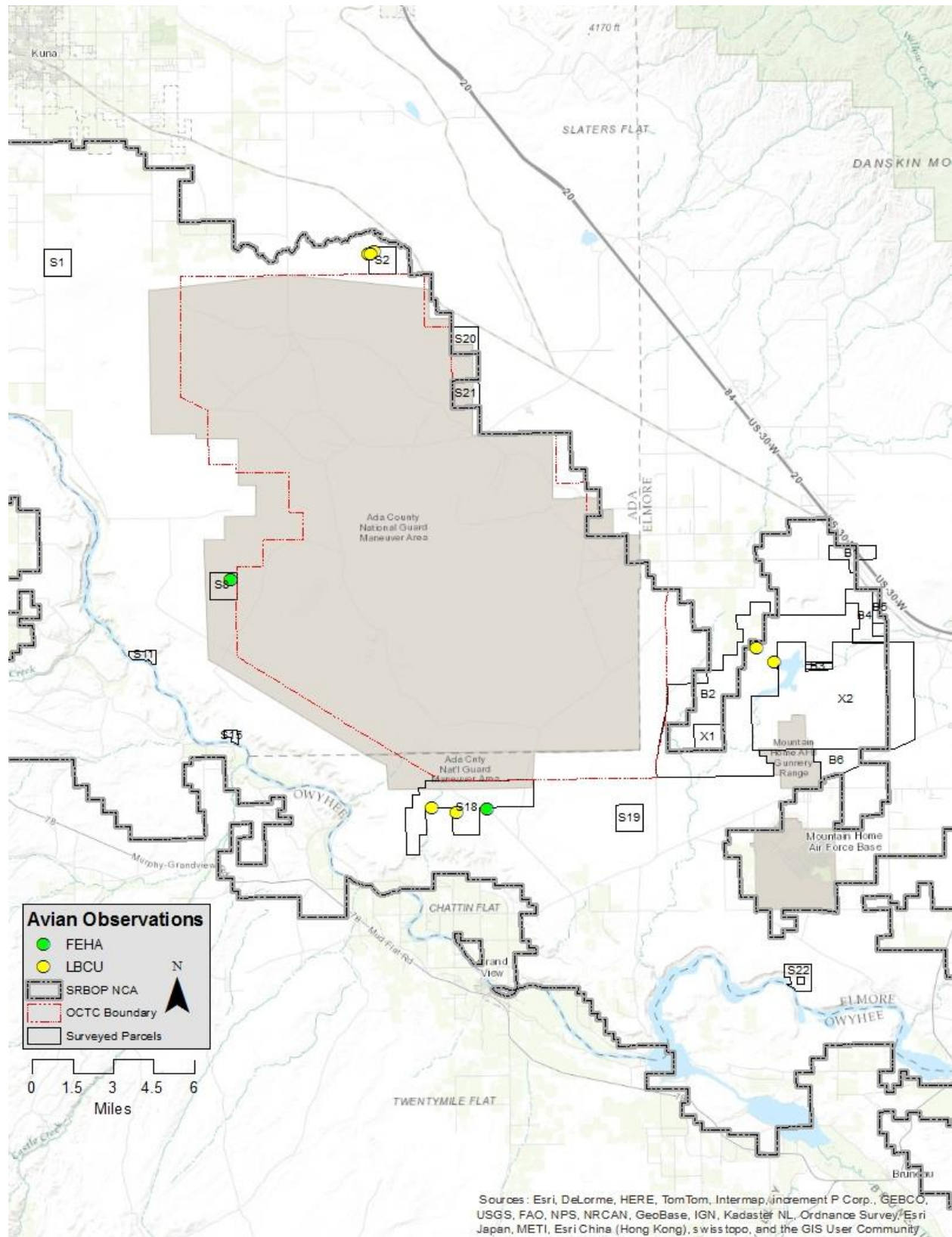


Figure 5. Observations of ferruginous hawk (FEHA) (*Buteo regalis*) and long-billed curlew (LBCU) (*Numenius americanus*) within and adjacent to project parcels.

## Discussion

The project area supports a diversity and abundance of plant and wildlife species. Over 70 species of plants were identified during the site clearances, including two special status plant species: slickspot peppergrass and Davis' peppergrass. Most observations of slickspot peppergrass and Davis' peppergrass match historical record locations. Of significant note, 10 new populations of slickspot peppergrass were identified in Parcel S1. The field crew also identified 28 species of wildlife from incidental observations, including three ferruginous hawk sightings and 22 long-billed curlew sightings.

Janish's penstemon, Packard's buckwheat, desert pincushion and white eatonella were not observed during the site clearances despite historic presence. The historic record for Janish's penstemon dates back to 1935 and Packard's buckwheat to 1971. IFWIS spatial locations for these historic observations cover large swaths of land, and therefore, it is difficult to determine whether these populations are extirpated, or are simply located outside of the project parcels. Desert pincushion populations were last observed in Parcel S18 in 2000. Populations of white eatonella were last observed in Parcel B2 in 2000. White eatonella is an ephemeral annual with growth highly dependent on temperature and available spring moisture, thus it may not occur every year (Camp and Gamon 2011).

While numerous plant and wildlife species were recorded during this survey, land cover data shows that over half of the project area is covered by Cheatgrass (41.0%) and Exotic Annuals (11.7%). Cheatgrass in particular, is highly invasive and may eventually out-compete native plant communities, including rare plants. Another factor that may affect rare plant populations is grazing. Many of the project area parcels have been subjected to grazing pressure. Slickspots are readily degraded by trampling, which then allows for vegetation encroachment (Mancuso et al. 1998). These factors may impact the abundance of slickspot peppergrass within the project area. Sagebrush species, Sandberg bluegrass, desert shrub species (i.e. rabbitbrush, saltbush and winterfat) and large bunch grasses, combined represent nearly 40% of land cover. These species are known to provide critical habitat elements to wildlife and rare plants. Therefore, future land management of the project area's parcels should be cognizant of preserving these native habitats to ensure wildlife and rare plants preservation and preventing the spread of invasive species.

## Conclusion

IDARNG and Ecosystem Sciences performed site clearances, using BLM methodologies, on over 38,800 acres of land within and adjacent to the NCA. The surveys were performed to facilitate future management and NEPA documentation. Two rare plants were observed during the course of the study, slickspot peppergrass and Davis' peppergrass. Parcels S1 and S2 supported populations of slickspot peppergrass. Davis' peppergrass was located in parcels S19, B6, X1 and X2. No special status plants were located in the majority of the parcels (S11, S15, S18, S20, S21, B1, B2, B4, and B5).

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## Appendix A – Compiled Plant Species List

The following tables represent species known to occur within the Orchard Combat Training Center, provided by the Idaho Army National Guard.

SHRUBS		
Common Name	Scientific Name	Code
Silver Sage	<i>Artemisia cana</i>	ARCA
Louisiana Sage	<i>Artemisia ludoviciana</i>	ARLU
Budsage	<i>Artemisia spinescens</i>	ARSP
Big Sagebrush	<i>Artemisia tridentata</i>	ARTR
Tripartite Sage	<i>Artemisia tripartita</i>	ARTRI
Gray rabbitbrush	<i>Chrysothamnus nauseosus</i>	CHNA
Green rabbitbrush	<i>Chrysothamnus viscidiflorus</i>	CHVI
Spiny hopsage	<i>Grayia Spinosa</i>	GRSP
Shadscale	<i>Atriplex confertifolia</i>	ATCO
Nuttall's Saltbrush	<i>Atriplex gerdneri/falcate</i>	ATGE
Winterfat	<i>Ceratoides lanata (krascheninnikovia lanata)</i>	CELA
Prostrate kochia	<i>Kochia prostrata</i>	KOPR
Summer cypress (kochia)	<i>Kochia scopara</i>	KOSC
Horsebrush	<i>Tetradymia glabrata</i>	TEGL
Spiny horsebrush	<i>Tetradymia spinosa</i>	TESP
Black greasewood	<i>Sarcobatus vermiculatus</i>	SAVE
Prickly phlox	<i>Leptodactylon pungens</i>	LEPU
Snakeweed	<i>Gutierrezia sarothrae</i>	GUSA
Low Pussytoes	<i>Antennaria dimorpha</i>	ANDI

FORBS		
Common Name	Scientific Name	Code
Yarrow	<i>Achillea millefolium</i>	ACMI
Taper-tip Onion	<i>Allium acuminatum</i>	ALAC
Nevada Onion	<i>Allium nevadense</i>	ALNE
Hooker's balsamroot	<i>Balsamorhiza hookeri</i>	BAHO
Greenbanded startulip	<i>Calochortus macrocarpus</i>	CAMA
Tapertip Hawksbeard	<i>Crepis acuminata</i>	CRAC
Yellow buckwheat	<i>Eriogonum ovalifolium</i>	EROV
Broom buckwheat	<i>Eriogonum vimineum</i>	ERVI
Common sunflower	<i>Helianthus annuus</i>	HEAN
Chocolate tips	<i>Lomatium dissectum</i>	LODI
Mountain desert parsley	<i>Lomatium greyii</i>	LOGR
Bigseed lomatium	<i>Lomatium macrocarpum</i>	LOMA
Little lupine	<i>Lupinus uucialis</i>	LUUU
Nuttall's silky lupine	<i>Lupinus holosericeus</i>	LUHO

FORBS (Continued)		
Common Name	Scientific Name	Code
St. Joseph's wand/ Blue penstemon	<i>Penstemon acuminatus</i>	PEAC
Cusick's penstemon	<i>Penstemon cusickii</i>	PECU
Hot rock penstemon	<i>Penstemon deustrus</i>	PEDE
Prickly-leaved phlox	<i>Phlox aculeata</i>	PHAC
Munro's globemallow	<i>Sphaeralcea munroana</i>	SPMU
Moth-mullein	<i>Verbascum blattaria</i>	VEBL
Mullein	<i>Verbascum thapsus</i>	VETH
Prostrate Pigweed	<i>Amaranthus albus</i>	AMAL
Fiddleneck	<i>Amsinckia retrorsa</i>	AMRE
Tessellate Fiddleneck	<i>Amsinckia tessellata</i>	AMTE
Showy Milkweed	<i>Asclepias speciosa</i>	ASSP
Beckwith's Milkvetch	<i>Astragalus beckwithii</i>	ASBE
Booth's evening primrose	<i>Camissonia boothii</i>	CABO
Evening primrose	<i>Camissonia contorta</i>	CACO
White-top	<i>Cardaria draba</i>	CADR
Wild Cabbage	<i>Caulanthus crassicaulis</i>	CACR
Hairy wild cabbage	<i>Caulanthus pilosus</i>	CAPI
Cushion catseye	<i>Cryptantha circumscissa</i>	CRCI
Narrow-stem catseye	<i>Cryptantha gracilis</i>	CRGR
Pinnate tansymustard	<i>Descurainia pinnata</i>	DEPI
Flixweed	<i>Descurainia sophia</i>	DESO
Davis' Peppergrass	<i>Lepidium davisii</i>	LEDA
Slick spot peppergrass	<i>Lepidium papilliferum</i>	LEPA
Clasping peppergrass	<i>Lepidium perfoliatum</i>	LEPE
Starflower	<i>Lithophragma glabrum</i>	LIGL
Prairie star	<i>Lithophragma parviflorum</i>	LIPA
Bristly mousetail	<i>Myosurus aristatus</i>	MYAR
Tiny mousetail	<i>Myosurus minimum</i>	MYMI
Sagebrush buttercup	<i>Ranunculus glabratus</i>	RAGL
Bur buttercup	<i>Ranunculus testiculatus</i>	RATE
Prostrate knotweed	<i>Polygonum aviculare</i>	POAR
Rush skeletonweed	<i>Chondrilla juncea</i>	CHJU
Western marsh cudweed	<i>Gnaphalium palustre</i>	GNPA
Chickweed	<i>Holosteum umbellatum</i>	HOUM
Nuttall's povertyweed	<i>Monolepis nuttalliana</i>	MONU
Lamb's Quarters	<i>Chenopodium album</i>	CHAL
Canada thistle	<i>Cirsium arvense</i>	CIAR
Blue-eyed Mary	<i>Collinsia parviflora</i>	COPA
Horseweed	<i>Conyza canadensis</i>	COCA
Bush clover dodder	<i>Cuscuta pentagona</i>	CUPE
Larkspur	<i>Delphinium bicolor</i>	DEBI
Turkey mullien	<i>Eremocarpum setigeris</i>	ERSE



FORBS (Continued)		
Common Name	Scientific Name	Code
Wilcox woollystar	<i>Eriastrum wilcoxii</i>	ERWI
Fleabane daisy	<i>Erigeron pumilus</i>	ERPU
Storksbill	<i>Erodium cicutarium</i>	ERCI
Spreading wallflower	<i>Erysimum repandum</i>	ERRE
White Frasera	<i>Frasera albicaulis</i>	FRAL
Pinyon groundsmoke	<i>Gayophytum ramosissima</i>	GARA
Whitlowgrass	<i>Draba verna</i>	DRVE
Shy gilia	<i>Gilia sinuata</i>	GISI
Halogeton	<i>Halogeton glomeratus</i>	HAGL
Small-flowered skyrocket	<i>Ipomopsis minutiflora</i>	IPMI
Prickly lettuce	<i>Lactuca serriola</i>	LASE
Slender rabbitleaf	<i>Lagophylla ramosissima</i>	LARA
Bristly langloisia	<i>Langloisia setosissima</i>	LASE2
Hoary aster	<i>Machaeranthera canescens</i>	MACA
Smooth desert dandelion	<i>Malacothrix glabrata</i>	MAGL
Alfalfa	<i>Medicago sativa</i>	MESA
Blazing star	<i>Mentzelia albicaulis</i>	MEAL
Miniature monkeyflower	<i>Mimulus suksdorfii</i>	MISU
Coyote tobacco	<i>Nicotiana attenuata</i>	NIAT
False agoseris	<i>Nothocalis troximoides</i>	NOTR
Bolander's yampa	<i>Perideridia bolanderi</i>	PEBO
Yellow phacelia	<i>Phacelia lutea</i>	PHLU
Shaggy popcorn flower	<i>Plagiobothrys hispidus</i>	PLHI
White plectritus	<i>Plectritus macrocera</i>	PLMA
Curly dock	<i>Rumex crispus</i>	RUCR
Russian thistle	<i>Salsola kali</i>	SAKA
Least toadsmouth	<i>Saorpcarpus kingii</i>	SAKI
Alkali marsh butterweed	<i>Senecio hydrophyllus</i>	SEHY
Tumble mustard	<i>Sisymbrium altissimum</i>	SIAL
Cutleaf nightshade	<i>Solanum triflorum</i>	SOTR
Sow thistle	<i>Sonchus oleraceus</i>	SOOL
Townsend daisy	<i>Townsendia florifer</i>	TOFL
Salsify	<i>Tragopogon dubius</i>	TRDU
Prostrate vervain	<i>Verbena bracteata</i>	VEBR
Cocklebur	<i>Xanthium strumarium</i>	XAST
Foothills death camas	<i>Zygadenus paniculatus</i>	ZYPA
Douglas pincushion	<i>Chaenactis douglassii</i>	CHDO
Desert Pincushion	<i>Chaenactis stevioides</i>	CHST
Autumn willowweed	<i>Epilobium paniculatum</i>	EPPA
Scentless mayweed	<i>Matricaria perforata</i>	MAPE

GRASSES		
Common Name	Scientific Name	Code
Thurber needlegrass	<i>Achnatherum thurberianum</i>	STTH
Crested Wheatgrass	<i>Agropyron cristatum</i>	AGCR
Russian wildrye	<i>Elymus junceus</i>	ELJU
Annual wheatgrass	<i>Eremopyrum triticeum</i>	ERTR
Idaho Fescue	<i>Festuca idahoensis</i>	FEID
Great Basin wildrye	<i>Leymus cinereus</i>	ELCI
Indian ricegrass	<i>Oryzopsis hymenoides</i>	ORHY
Sandberg's bluegrass	<i>Poa secunda</i>	POSE
Bottlebrush squirreltail	<i>Sitatnion hystrix (Elymus elimoides)</i>	SIHY
Medusahead rye	<i>Taeniatherium asperum</i>	TAAS
Brome's six-weeks fescue	<i>Vulpia bromoides</i>	VUBR
Six-weeks fescue	<i>Vulpia octoflora</i>	VUOC
Red brome	<i>Bromus rubens</i>	BRRU
Cheatgrass/Downy brome	<i>Bromus tectorum</i>	BRTE
Wild barley	<i>Hordeum glaucum</i>	HOGL
Bristly stickseed	<i>Lappula echinata</i>	LAEC

MOSS		
Common Name	Scientific Name	Code
Twisted moss	<i>Tortula ruralis</i>	TORU

LICHEN		
Common Name	Scientific Name	Code
Wovenspore lichen	<i>Texosporium sancti-jacobi</i>	TESA

## Appendix B – NRCS Soils by Parcel

The following tables show the NRCS map unit soil descriptions and their respective acreages/percent of total area by individual parcel. A map depicting taxonomic groups for soil types within the project parcels is shown in Figure B1, following the tables.

**Table B1. Description of soils found in Parcel S1.**

Map Unit Description	Acreage	Percentage
Power-McCain silt loams, 2 to 4 percent slopes	510	46.1%
Power-McCain silt loams, 0 to 2 percent slopes	316	28.6%
Power silt loam, 0 to 2 percent slopes	165	15.0%
McCain stony silt loam, 2 to 4 percent slopes, extremely stony	56	5.0%
Rock outcrop-Trevino complex, 5 to 20 percent slopes	50	4.5%
Potratz silt loam, 2 to 4 percent slopes	7	0.6%
Scism silt loam, bedrock substratum, 0 to 2 percent slopes	2	0.2%
<b>Total</b>	<b>1106</b>	<b>100.0%</b>

**Table B2. Description of soils found in Parcel S2.**

Map Unit Description	Acreage	Percentage
Chardoton-Xeric Natrargids silty clay loams, 0 to 2 percent slopes	184	29%
Chilcott-Catchell-Chardoton complex, 0 to 4 percent slopes	137	21%
Catchell-Chilcott-Banbury complex, 1 to 12 percent slopes	105	16%
Bowns loam, 0 to 8 percent slopes, stony	88	14%
Bowns-Rock outcrop complex, 0 to 15 percent slopes	79	12%
Brent loam, low rainfall, 2 to 4 percent slopes	24	4%
Power silt loam, 0 to 2 percent slopes	15	2%
Chilcott-Sebree complex, bedrock substratum, 0 to 2 percent slopes	12	2%
<b>Total</b>	<b>645</b>	<b>100%</b>

**Table B3. Description of soils found in Parcel S8.**

Map Unit Description	Acreage	Percentage
Corder-Tadpole complex, 2 to 8 percent slopes	387	60%
Truesdale fine sandy loam, 0 to 2 percent slopes	80	13%
Tadpole-Purdam-Trevino complex, 0 to 5 percent slopes	67	10%
Tadpole-Scism complex, 8 to 20 percent slopes	63	10%
Truesdale fine sandy loam, 4 to 8 percent slopes	26	4%
Dolman-Minveno-Scism complex, 0 to 8 percent slopes	18	3%
<b>Total</b>	<b>642</b>	<b>100%</b>

**Table B4. Description of soils found in Parcel S11.**

Map Unit Description	Acreage	Percentage
Vanderhoff soils, 30 to 60 percent slopes	87	38%
Rubble land	59	26%
Potratz-Trevino complex, 4 to 12 percent slopes	47	21%
Trevino-Potratz complex, 0 to 4 percent slopes	18	8%
Baldock loam, 0 to 2 percent slopes	15	7%
<b>Total</b>	<b>226</b>	<b>100%</b>

**Table B5. Description of soils found in Parcel S15.**

Map Unit Description	Acreage	Percentage
Typic Torriorthents-Rubble land complex, 35 to 90 percent slopes	89	77%
Baldock loam, 0 to 2 percent slopes	13	12%
Vanderhoff soils, 30 to 60 percent slopes	13	11%
<b>Total</b>	<b>115</b>	<b>100%</b>

**Table B6. Description of soils found in Parcel S18.**

Map Unit Description	Acreage	Percentage
Tadpole-Strike complex, 0 to 2 percent slopes	2331	56.5%
Strike-Slickspots-Tadpole complex, 0 to 4 percent slopes	767	18.6%
Corder-Tadpole complex, 2 to 8 percent slopes	339	8.2%
Chattin-Slickspots complex, 0 to 4 percent slopes	301	7.3%
Garbutt-Trevino association, 4 to 20 percent slopes	266	6.5%
Tadpole-Corder complex, 0 to 2 percent slopes	73	1.8%
Trevino-Garbutt-Strike complex, 2 to 8 percent slopes	24	0.6%
Corder-Tadpole complex, 4 to 25 percent slopes	18	0.4%
Badland, 1 to 8 percent slopes	4	0.1%
Typic Torriorthents-Rubble land complex, 20 to 70 percent slopes	1	0.0%
<b>Total</b>	<b>4124</b>	<b>100.0%</b>

**Table B7. Description of soils found in Parcel S19.**

Map Unit Description	Acreage	Percentage
Tadpole-Corder complex, 0 to 2 percent slopes	678.69	55.976%
Tadpole silt loam, 0 to 2 percent slopes	291.49	24.041%
Corder-Tadpole complex, 2 to 8 percent slopes	215.53	17.776%
Corder-Tadpole complex, 4 to 25 percent slopes	26.73	2.204%
Playas, 0 to 1 percent slopes	0.03	0.003%
<b>Total</b>	<b>1212.46</b>	<b>100.00%</b>

**Table B8. Description of soils found in Parcel S20.**

Map Unit Description	Acreage	Percentage
Bahem-Minidoka-Trevino complex, 0 to 4 percent slopes	557	83.1%
Power-Jenness complex, 0 to 2 percent slopes	93	13.9%
Trevino-Garbutt-Strike complex, 2 to 8 percent slopes	19	2.8%
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	2	0.2%
<b>Total</b>	<b>671</b>	<b>100.0%</b>

**Table B9. Description of soils found in Parcel S21.**

Map Unit Description	Acreage	Percentage
Colthorp stony silt loam, 0 to 8 percent slopes, very stony	6073	45.3%
Chilcott-Power complex, 0 to 8 percent slopes	2562	19.1%
Power-Chardoton complex, 0 to 4 percent slopes	1444	10.8%
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	1285	9.6%
Power-Jenness complex, 0 to 2 percent slopes	1071	8.0%
Power-Purdam silt loams, 0 to 1 percent slopes	639	4.8%
Chilcott silt loam, 0 to 4 percent slopes	196	1.5%
Colthorp-Kunaton complex, 0 to 8 percent slopes	99	0.7%
Cinder land	22	0.2%
<b>Total</b>	<b>13391</b>	<b>100.0%</b>

**Table B10. Description of soils found in Parcel S22.**

Map Unit Description	Acreage	Percentage
Timmerman loamy sand, 2 to 20 percent slopes, rubbly	134	26%
Garbutt silt loam, 0 to 4 percent slopes	131	26%
Xeric Torriorthents and Xerollic Camborthids, 8 to 20 percent slopes	86	17%
Royal-Truesdale fine sandy loams, 0 to 4 percent slopes	81	16%
Truesdale fine sandy loam, 0 to 4 percent slopes	33	6%
Rock outcrop-Rubble land association	20	4%
Garbutt-Strike-Trevino complex, 2 to 8 percent slopes	18	3%
Water	9	2%
<b>Total</b>	<b>512</b>	<b>100%</b>

**Table B11. Description of soils found in Parcel B1.**

Map Unit Description	Acreage	Percentage
Chilcott silt loam, 0 to 4 percent slopes	451	70.6%
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	186	29.1%
Kunaton silt loam, 0 to 4 percent slopes	2	0.2%
<b>Total</b>	<b>638</b>	<b>100.0%</b>

**Table B12. Description of soils found in Parcel B2.**

Map Unit Description	Acreage	Percentage
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	6003	45.9%
Power-Jenness complex, 0 to 2 percent slopes	1743	13.3%
Bahem-Minidoka-Trevino complex, 0 to 4 percent slopes	1731	13.2%
Lankbush-Jenness association, 0 to 4 percent slopes	1442	11.0%
Tadpole-Corder complex, 0 to 2 percent slopes	738	5.6%
Trevino-Garbutt-Strike complex, 2 to 8 percent slopes	484	3.7%
Chilcott silt loam, 0 to 4 percent slopes	470	3.6%
Colthorp-Kunaton complex, 0 to 8 percent slopes	224	1.7%
Colthorp-Kunaton-Rubble land complex, 8 to 20 percent slopes	109	0.8%
Tadpole silt loam, 0 to 2 percent slopes	62	0.5%
Corder-Tadpole complex, 2 to 8 percent slopes	26	0.2%
Cinder land	24	0.2%
Minveno-Minidoka silt loams, 0 to 8 percent slopes, stony	19	0.1%
Colthorp stony silt loam, 0 to 8 percent slopes, very stony	9	0.1%
<b>Total</b>	<b>13085</b>	<b>100.0%</b>

**Table B13. Description of soils found in Parcel B3.**

Map Unit Description	Acreage	Percentage
Chilcott-Power complex, 0 to 8 percent slopes	69.43	42.33%
Power-Jenness complex, 0 to 2 percent slopes	66.89	40.78%
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	16.61	10.13%
Cinder land	7.80	4.75%
Chilcott silt loam, 0 to 4 percent slopes	3.25	1.98%
Colthorp stony silt loam, 0 to 8 percent slopes, very stony	0.05	0.03%
<b>Total</b>	<b>164.02</b>	<b>100.0%</b>

**Table B14. Description of soils found in Parcel B4.**

Map Unit Description	Acreage	Percentage
Chilcott silt loam, 0 to 4 percent slopes	671	70%
Colthorp-Kunaton complex, 0 to 8 percent slopes	86	9%
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	76	8%
Chilcott-Power complex, 0 to 8 percent slopes	71	7%
Power-Jenness complex, 0 to 2 percent slopes	56	6%
<b>Total</b>	<b>960</b>	<b>100%</b>

**Table B15. Description of soils found in Parcel B5.**

Map Unit Description	Acreage	Percentage
Chilcott silt loam, 0 to 4 percent slopes	161	67%
Chilcott-Power complex, 0 to 8 percent slopes	74	31%
Power-Jenness complex, 0 to 2 percent slopes	5	2%
<b>Total</b>	<b>240</b>	<b>100%</b>

**Table B16. Description of soils found in Parcel B6.**

Map Unit Description	Acreage	Percentage
Colthorp stony silt loam, 0 to 8 percent slopes, very stony	815	87%
Minidoka-Minveno silt loams, 0 to 4 percent slopes	50	5%
Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony	45	5%
Bahem silt loam, 0 to 4 percent slopes	29	3%
<b>Total</b>	<b>939</b>	<b>100%</b>

**Table B17. Description of soils found in Parcel X1.**

Map Unit Description	Acreage	Percentage
Chilcott-Catchell-Chardoton complex, 0 to 4 percent slopes	527	51%
Bowns-Rock outcrop complex, 0 to 15 percent slopes	264	26%
Chilcott-Sebree complex, bedrock substratum, 2 to 4 percent slopes	120	12%
Chardoton-Xeric Natrargids silty clay loams, 0 to 2 percent slopes	57	6%
Chilcott-Brent silt loams, 0 to 2 percent slopes	41	4%
Chilcott-Chardoton complex, 0 to 4 percent slopes	20	2%
<b>Total</b>	<b>1030</b>	<b>100%</b>

**Table B18. Description of soils found in Parcel X2.**

Map Unit Description	Acreage	Percentage
Chilcott-Catchell-Chardoton complex, 0 to 4 percent slopes	745	52.43%
Catchell-Chilcott-Banbury complex, 1 to 12 percent slopes	536	37.69%
Chardoton-Power complex, 0 to 2 percent slopes	81	5.67%
Banbury-McPan-Rock outcrop complex, 2 to 15 percent slopes	47	3.28%
Chilcott-Chardoton complex, 0 to 4 percent slopes	13	0.94%
<b>Total</b>	<b>1422</b>	<b>100.0%</b>

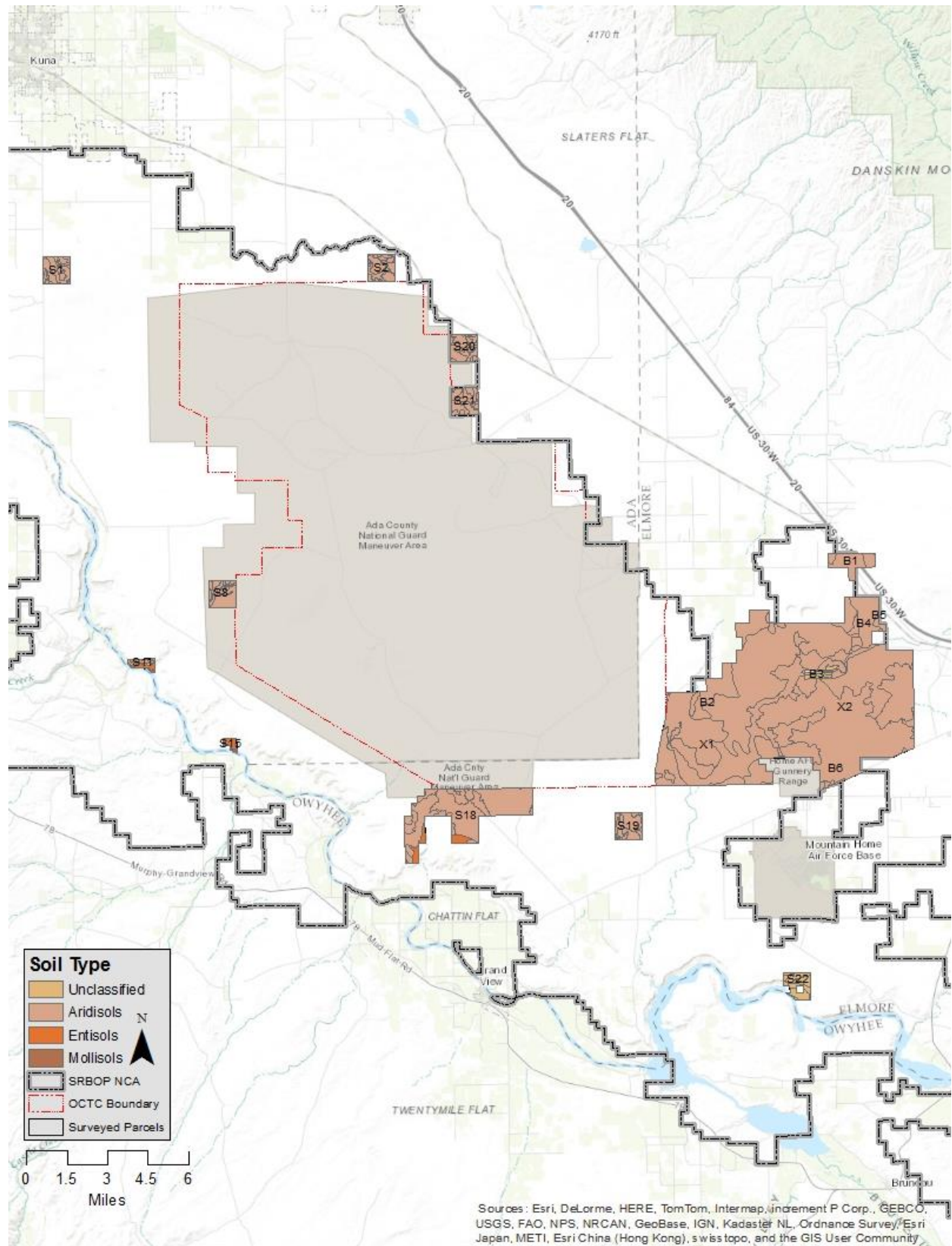


Figure B1. Soil types (taxonomic group) within the Project Parcels



## Appendix C – Specialist Resumes

### TIM MAGUIRE – Project Manager

#### Education

M.S., Geography, Portland State University

B.A., Environmental Studies, Gettysburg College

#### Experience

Tim specializes in land management, botanical surveys, wildlife studies and Geographic Information Systems (GIS) and Remote Sensing. Tim has spent most his career working on land management issues in Western North America, with an emphasis on rangeland health and its relation to healthy watersheds, waterways and wetlands. Tim attained a M.S. degree in Geography from Portland State University in 2001. During his Geography course work Tim focused primarily on the physical and earth sciences taking courses in Geomorphology, Soils, Soils and Land Use, Biogeography, Botany and Plant Physiology, and Remote Sensing and GIS.

During his professional career, Tim has extensive experience working in vegetative science and the identification of plant species including special status species. Tim has performed vegetation inventories for wetland delineations, land use impacts (e.g. tilling, cattle trampling) on soil and their effect on river, forest and grassland restoration. Tim has spent a considerable amount of time working on grazing lands in Idaho and California, examining the implications of this intensive land use on soil and vegetative properties. Additionally, Tim has extensive knowledge of the SSURGO database and use of SSURGO data in a GIS environment.

Being a Geographer Tim has used GPS extensively in his career. Recently (Summer 2016) Tim employed Trimble handhelds (e.g. Juno, Geoexplorer) to collect vegetation information (plant species, cover estimates, with a focus on sensitive species) on BLM and State Lands in Southwest Idaho. Tim built the data dictionaries, coordinated and trained the field technicians on how to use the handhelds and performed all the data management for the project.

Tim's in-depth experience in land management, vegetative science and features, GIS and GPS technology makes him an exceptional team member on any rangeland related investigation. Tim's background and GIS expertise ensures investigations and data collection effort are employed at applicable scales with organized data.

#### Networks

Treasure Valley Canopy Network

Boise River Enhancement Network

#### Councils

Idaho Lands Resource Coordinating Council

#### Publications

Ecosystem Sciences. 2008. Wetland Delineation Report: South Five Mile Road, Meridian, Idaho. Prepared for the Church of Latter Day Saints.

Ecosystem Sciences. 2003 - 2010. Inyo and Mono Counties Grazing Management Plans. Prepared for the Los Angeles Department of Water and Power.

Ecosystem Sciences. 2010. Owens Valley Land Management Plan, Final. Prepared for the Los Angeles Department of Water and Power.

Ecosystem Sciences. 2011. Wildlife and Botanical Clearance: Linehan Flat road expansion. Prepared for Environmental Conservation Services, Inc.

Ecosystem Sciences. 2012. Bear River Narrows Wetland Delineation and Functional Assessment: a framework for a conceptual wetland mitigation plan. Prepared for Twin Lakes Canal Company.

Ecosystem Sciences. 2014. Mountain Meadows Restoration Complex; sensitive species and noxious weed report. Prepared for the Plumas Corporation (Plumas County, California).

Ecosystem Sciences. 2016. Natural Resource inventory: Snake River Birds of Prey National Conservation Area, 2016. Prepared for the Idaho Army National Guard.

Maguire, T.S. 2010. A Multi-Scale Assessment of Avian Diversity following stream re-watering, Owens Gorge, CA. *Natural Areas Journal*. V30N2.

### **Project Experience**

Los Angeles Department of Water and Power, ***Riparian Habitat and Grazing Management, California***. 2005-2014. Develop grazing management plans that will protect riparian and wetland habitat, soil conditions and fisheries.

Los Angeles Department of Water and Power, ***Owens Valley Land Management Plan, California***. 1996-2014. Developed the OVLMP to manage of key resource areas for Los Angeles-owned lands and throughout the Owens River basin (350,000 acres). Describes current conditions and future management of grazing, riverine-riparian ecosystems, recreation, cultural resources, fire, commercial uses, threatened and endangered species, and areas of special concern.

Twin Lakes Canal Company and GeoSense Hydrology, ***Bear River Hydroelectric Project; Environmental Assessments, Idaho***. 2008-2011. Performed 11 assessments of habitat use, quality and quantity for species and taxa, including rare plants and wetlands to assess impacts associated with a proposed hydroelectric facility. Performed agency consultation, public presentations, field sampling, habitat modeling and mapping, impact zone overlays, report writing, and provided expert advice to our clients within a federal and state regulatory framework.

Idaho Army National Guard (IDARNG), ***Idaho Army National Guard Avian Surveys, Idaho***. 2011-2016. *Project Manager*. Baseline avian survey for the IDARNG Orchard Training Area (OTA) was conducted during spring migration season in a great basin sagebrush scrub habitat. The team analyzed point count data in a GIS to derive abundance and diversity measures, create species distribution maps, analyze species diversity by OTA area, analyze species diversity per vegetation type and structure, and derive management plans to promote avian diversity and abundance.

Twin Lakes Canal Company and GeoSense Hydrology, ***Bear River Hydroelectric Project (FERC #12486) Wetland Delineation and Functional Assessment, Idaho***. 2012. Performed 11 assessments of habitat use, quality and quantity for species and taxa, including rare plants and wetlands to assess impacts associated with a proposed hydroelectric facility. Performed agency consultation, public presentations, field sampling, habitat modeling and mapping, impact zone overlays, report writing, and provided expert advice to our clients within a federal and state regulatory framework.

Environmental Conservation Services, Inc., **Linehan Flat Botanical and Wildlife Clearances, Idaho**. 2011. GIS Manager. Ecosystem Sciences performed botanical and wildlife surveys for 1.4 miles of road near Linehan Flat in the Owyhee Mountains, ID. The survey area occurs on BLM land.

Corp. of the Presiding Bishop of the Church of Jesus Chris of Latter-day Saints, **Wetland Delineation and Functional Assessment Report: South Five Mile Road, Idaho**. 2012. Performed a wetland delineation and functional assessment on a property adjacent to the Church of Latter Day Saints on South Five Mile Road in Meridian Idaho. Delineation and Assessment followed the USACE Wetland Delineation manual. The results determined where the client could and could not build.

Plumas Corporation, Plumas County, **Mountain Meadows Sensitive Species and Noxious Weed Report, California**. 2014. Ecosystem Sciences performed noxious weed and rare plant surveys on 280 acres of private land in Plumas County California. The surveys were botanical in nature and focused on ensuring compliance for stream restoration and land management (grazing) changes.

## Tamsen Binggeli, Ecologist

### Education

M.S., Environmental Science, University of Idaho

Research title: Wetland delineation, rapid assessment and site analysis: recommendations for a proposed 6-acre wetland mitigation bank, Boise, Idaho

B.B.A., International Business, Boise State University

### Experience

Tamsen conducts scientific research and analysis on a variety of environmental subjects, including Great Basin sagebrush steppe ecology; wetland and riparian ecology, water quality; and hydrology. Her current work focuses on environmental assessments, planning and developing restoration strategies within a regulatory context. Tamsen serves on the Ada County Environmental Advisory Board and Boise River Enhancement Network Coordinating Team. Some of her representative experience includes:

- Idaho Army National Guard, **Migratory Bird Survey and Mapping, Snake River Birds of Prey NCA, Idaho**. 5/2016-01/2017. Research potential bird species, ESA/special status species, and identification and associated habitats; conduct bird surveys (visual and aural); map bird species diversity, abundance and distribution in ArcGIS; perform historical analysis; write technical report.
- Idaho Army National Guard, **Natural Resources Baseline Inventory/Rare Plant Survey, Snake River Birds of Prey NCA, Idaho**. 5/2016-12/2016. Conduct vegetation and rare plant surveys utilizing BLM's intuitive controlled survey methods for special status plant species; develop floodplain and special status species maps; write summaries on special status species and land cover; analyze results; write technical report and discussion.
- Bogus Basin Mountain Recreation Area and Ski Resort, **Bogus Basin Project Natural Features Report, Idaho**. 10/2016-11/2016. Research and obtain occurrence data on plant, fish and wildlife species; research future environmental assessment (EA) requirements for activities on USFS lands; conduct field investigation within area of impact; inventory plant species; identify key habitat and potential wetlands; perform write-ups on special status species; assess project impacts; write report.
- Idaho Irrigation District and New Sweden Irrigation District, **County Line Road Hydroelectric Project, Snake River, Idaho**. 8/2016-9/2016. Research potential habitat, develop summary report for ESA listed species; create GIS land cover map; perform technical writing and editing.
- Next Level Development, Idaho. **Environmental Impact Assessment for Stillwater Development**. 10/2011-11/2015. Research special status species; perform on-site survey; create GIS land cover map; describe historic conditions, geomorphology, vegetation, wildlife; summarize impacts.
- The Land Group, **Environmental Impact Assessment for Isla del Rio Development, Idaho**. 5/2015-8/2015. Perform on-site environmental survey; create GIS land cover map; research Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and USFWS guidelines to assess project impacts and develop mitigation measures for active bald eagle nest.

- Silver Creek Alliance. **Silver Creek Watershed Enhancement Program, Idaho.** 8/2011-Current. Create GIS land cover map; perform field survey; analyze data from monitoring program, including statistical analysis of water temperatures; summarize yearly data.
- Natural Systems Analysts and Bureau of Land Management (BLM). **Riverine-Riparian Proper Functioning Condition (PFC) Assessment of Streams, Montana.** 7/2015–12/2015. Analyze field data, determine PFC condition and write accompanying executive summaries, following BLM protocol, for surveys conducted for 125 miles of stream reaches.
- Plumas Corporation. **Mountain Meadows Sensitive Species and Noxious Weed Report, California.** 8/2014-1/2015. Research rare, noxious and special status species for surveys conducted on 280 acres of private land; summarize habitat and life history for USFWS Biological Evaluation.
- Twin Lakes Canal Company and Federal Energy Regulatory Commission (FERC). **Bear River Narrows Wetland Delineation and Functional Assessment, Idaho.** 04/2013-4/2014. Develop survey methods; perform wetland delineation and functional assessment; determine impacts and develop mitigation options; write technical reports for use in FERC application.

## Zack Herzfeld, Geographer

### Education

M.S., Geography, Portland State University

Performed exhaustive literature review in the field of stream geomorphology; designed data collection methodology/collected stream flow data in the uplands of central Mexico; created GIS-based hydrologic model.

B.B.A., International Business and Finance, Boise State University

### Experience

Zack is a geographer with applied knowledge in several physiographic disciplines, including: hydrology, geomorphology and ecology. He has experience with a variety of field sampling methods for data collection in the environmental sciences within both upland and riparian settings. Zach serves as a volunteer for Idaho Smart Growth, the Idaho Human Rights Education Center, Sustainable Futures, and Ecosystem Sciences Foundation. Some of his representative experience includes:

- Idaho Army National Guard, Snake River Birds of Prey NCA, Idaho. ***Migratory Bird Survey and Mapping***. 5/2016-1/2017. Field data collection with Trimble Juno 3b GPS handhelds. Identification of rare/endangered plant species. Conducted bird surveys and identified a variety of upland animal species.
- Idaho Army National Guard, Snake River Birds of Prey NCA, Idaho. ***Natural Resources Baseline Inventory/Rare Plant Survey***. 5/2016-12/2016. Conducted bird surveys and identified a variety of upland animal species.
- United Nations Environment Programme (UNEP), Environment Agency-Abu Dhabi (EAD) and Abu Dhabi Global Environmental Data Initiative (AGEDI). ***Arab Atlas of Environmental Change***. 2013. Tasked with various research projects, data organization and graph creation, as well as technical writing and copy editing.
- Los Angeles Department of Water and Power, ***Lower Owens River Project (LORP), California***. 2015-current. Editing in ArcGIS 9.x, database/metadata rectification/creation; editing technical documents, such as Habitat Conservation Plans (HCP); field work, which included plant identification while walking vegetation transects, and data collection with GPS handheld devices.
- Silver Creek Alliance. ***Silver Creek Watershed Enhancement Program, Idaho***. 2015-current. Digitized land cover in ArcGIS 9.x. Measured flow at several stream cross-sections for watershed monitoring.
- Silver Springs Ranch. ***Silver Springs Ranch Project, Idaho***. 2015-current. Produced infographics and created/managed geodatabases in ArcGIS10.x to support map production and sustainable ranch management.
- Idaho Irrigation District and New Sweden Irrigation District, ***County Line Road Hydroelectric Project, Upper Snake River, Idaho*** 8/2016-2/2017. Collected depth and flow measurements (with SONAR and ADCP) for the production of a bathymetric model. Created data dictionary for field data collection and identification of macrophytes and riparian vegetation plant communities. Performed land cover classification and statistical analyses, such as distance to cover for a variety of flows.
- Western Watersheds, ***Copper Basin Grazing Assessment, Idaho***. 2015-2016. Collected data to assess stream morphology as related to ungulate grazing impacts.
- Kuwait Environment Public Authority, ***Kuwait Environment Public Authority Geodatabase Project***. 2016. Geodatabase management and infographic creation.
- Ecosystem Sciences Foundation. ***Idaho Atlas of Environmental Change***. Data collection and map creation.

### Computer and Language Skills

Proficient in Microsoft Office Programs and ArcGIS 10.3; experience with remote sensing software (ENVI), field data collection software (Trimble TerraSync) and Pathfinder Office, Adobe Creative Cloud, and R Statistical Computing software; a strong aptitude for learning new geospatial programs and experience in hydrologic modelling. Working proficiency in Spanish.

# Danielle Klemash Maguire

## *Danielle Klemash Maguire*

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### *Education*

University of Idaho, College of  
Natural Resources; Moscow, ID

Restoration Ecology Certificate  
(2011)

Boise State University; Boise, ID

B.S. Biology- Ecology Emphasis  
Minor: Anthropology (2004)

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### *Professional Experience*

- **Natural Resource Specialist/Ecologist** **Independent Contractor; Boise, ID**  
Lead and/or consult on projects focusing on upland vegetation and riparian ecology, rare plant and noxious weed surveys, wetland delineation and mitigation, and wildlife inventory. Projects include: Vegetation inventory/noxious weed mapping in cooperation with Resource Systems, Inc. and Harris Ranch; Wetland monitoring for Avimor Planned Community; Upland and wetland plant inventory in cooperation with Resource Systems, Inc. and private landowners; Avian point counts, vegetation ground-truthing and comprehensive vegetation compilation in cooperation with Ecosystem Sciences and the Idaho Army National Guard. Assisted in the analysis and compilation of the Migratory and Sagebrush Obligate Bird Inventory, IDARNG- Orchard Training Area 2016; Lead Biologist for rare plant, vegetation and wildlife surveys in cooperation with Ecosystem Sciences and the Idaho Army National Guard. Assisted in the development of the corresponding report, Natural Resources Inventory, Idaho Army National Guard, 2016. (6/11-present)
- **Ecologist** **Ecosystem Sciences; Boise, ID**  
Conducted bird point counts, vegetation ground-truthing and comprehensive vegetation compilation for Ecosystem Sciences in cooperation with the Idaho Army National Guard. Assisted in the analysis and development of the Migratory and Sagebrush Obligate Bird Inventory, IDARNG- Orchard Training Area 2011. (5/11-12/11)
- **Plant Ecologist** **Environmental Conservation Services (ECS); Boise, ID**  
Specialized in botany; upland, riparian, and wetland ecology; research design; data analysis; and document preparation for ECS (EA/EIS documents in compliance with NEPA; wetland delineation reports per ACOE standards and procedures). Conducted endangered, threatened, and sensitive species surveys for Section 7 compliance, upland and riparian vegetation surveys, wildlife surveys, wetland delineations, environmental/ biological assessments, and cumulative effects analysis. (5/07-5/10)
- **Plant Ecologist** **Ecosystem Sciences; Boise, ID**  
Contributed to three different projects for Ecosystem Sciences, LLC: the Bear River Narrows Hydroelectric Project, Gibson Dam Hydroelectric Project FERC NO. P-12478-002, and the LDS Property Wetland Delineation. For the Bear River Narrows Hydroelectric Project I conducted surveys for sensitive plant species and invasive/ noxious weeds, and developed a comprehensive list of all flora species encountered. For the Gibson Dam Hydroelectric Project (Lewis & Clark and Teton counties) in Montana, I designed and conducted sensitive species and noxious weed surveys, and co-authored the Special Status Plant and Noxious Weed Survey Plan, and Final Report. For the LDS Property Wetland Delineation, I served as Lead Biologist, conducting the delineation and writing the report. (8/08-10/08)
- **Principal Biologist** **Oxbow Environmental LLC; Boise, ID**  
Co-owned environmental consulting company that used rigorous research methodologies and analytical techniques to support natural resource consulting services. Specialized in botany, riparian ecology, entomology, research design and data analysis. Performed threatened, endangered and sensitive species surveys for Section 7 compliance; biological assessments; wetland delineations for Section 404 permit application; and cumulative effects analysis. Areas of expertise include riparian and upland plant surveys and habitat assessments; rare plant surveys; aquatic macroinvertebrate surveys; and sensitive aquatic snail surveys. Key project: Developed the Middle Owens River Habitat Monitoring Plan which included project design, multiple field surveys to obtain baseline data (including several vegetation parameters and bird point counts), data analysis and document preparation. (2/05-3/07)



# Slickspot Peppergrass Stage 3 Surveys

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*Idaho Army National Guard*

November 13, 2017

Prepared by Ecosystem Sciences, 202 N9th St. Suite 400 Boise, Idaho 83702

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## Executive Summary

Ecosystem Sciences performed Stage 3 surveys for slickspot peppergrass in parcels B1, B2, B3, B4, B5 and B6 on Bureau of Land Management (BLM) land within the Morley Nelson Snake River Birds of Prey NCA from July to August 2017.

Stage 3 surveys were conducted following methods outlined in the BLM Slickspot Peppergrass Inventory and Clearance Standards (BLM 2010). These standards state that “areas identified as containing slickspots would be inventoried using the methods and transect lines described for Stage 1” (BLM 2010); therefore, the LEPA Stage 3 surveys followed the same transects used in 2016. However, only areas that included the Sagebrush vegetation type located on loamy soils (NRCS 2015) representing potential habitat were surveyed. Surveys focused on potential habitat within the remaining 5 parcels and within a ¼ mile buffer of one known LEPA occurrence, which encompasses part of Parcel B2 and Parcel B3.

Observed LEPA were recorded via a handheld GPS (Trimble Juno series) unit with a data dictionary based on site clearance survey forms by the BLM (2010). When slickspots (potential habitat) were observed, the spatial location and numbers observed were also recorded via GPS.

Potential habitat containing slickspots was found in Parcels B1, B3, B4 and B6, while no habitat was found in Parcel B5. One population containing over 100 individuals of slickspot peppergrass was found in Parcel B2.

The results of the Stage 3 Survey found Parcel B5 to be “non-habitat”; Parcels B1, B3, B4 and B6 to be “unoccupied” habitat; and Parcel B2 to be “occupied” habitat.

## Purpose

The purpose of this project was to conduct Stage 3 Additional Plant Inventory surveys for Slickspot peppergrass, *Lepidium papilliferum* (LEPA), in parcels B1, B2, B3, B4, B5 and B6 on Bureau of Land Management (BLM) land within the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA). Stage 2 and 3 surveys are performed to determine the presence or absence of slickspot peppergrass in known slickspots, as identified through Stage 1 inventory (BLM 2010). The Stage 1 inventory was performed by the BLM in 2013 (personnel communication Charlie Baun), and the Stage 2 inventory was performed by Ecosystem Sciences in 2016. The 2017 Stage 3 inventory focuses on known LEPA locations and most likely habitat areas for slickspots (big sagebrush areas located on loamy soil). Areas containing slickspots that do not support LEPA will be deemed “unoccupied”. If no slickspots are located, then the area will be classified as “non-habitat”.

## Project Location and Environmental Setting

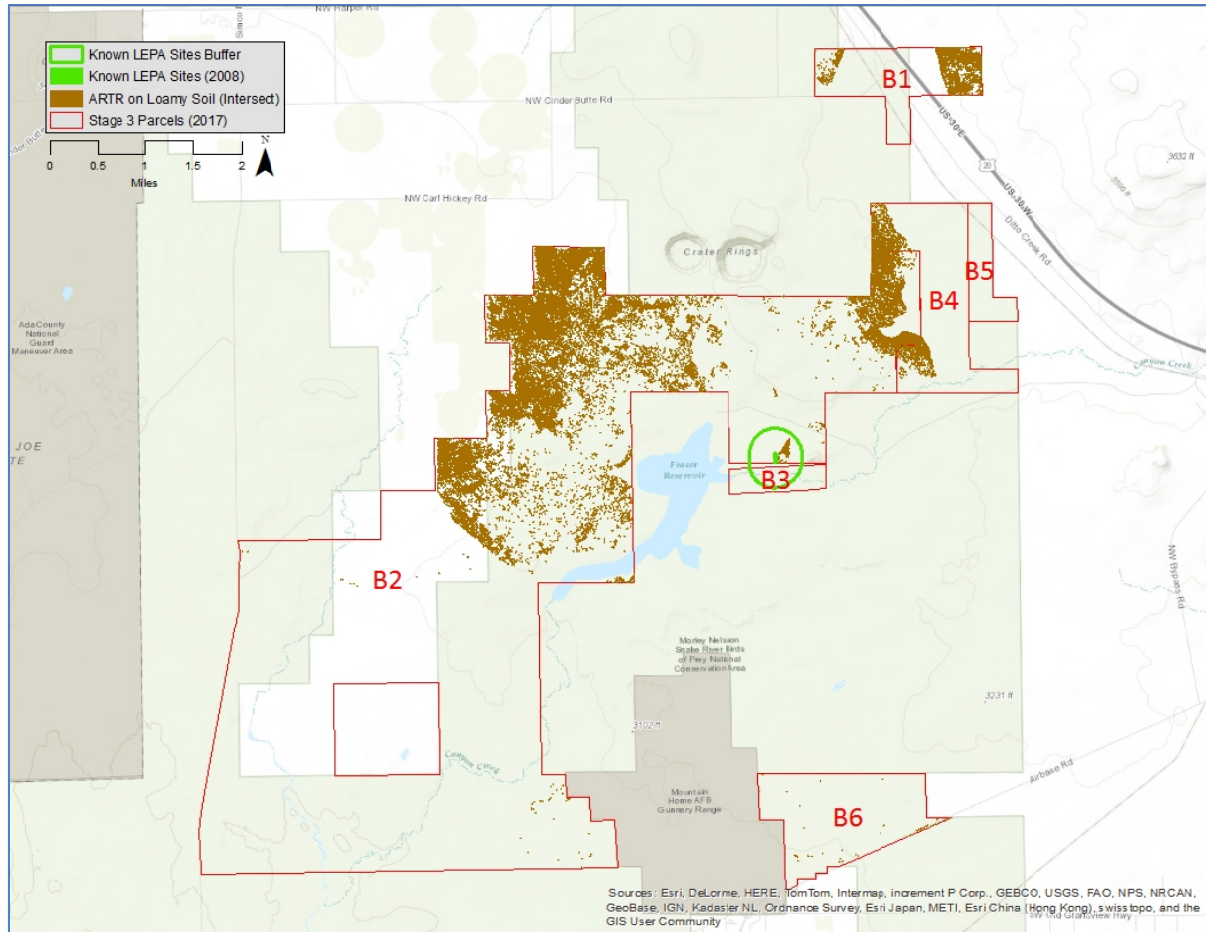
The overall project area consists of approximately 16,026 acres of BLM land located within the Morley Nelson Snake River Birds of Prey NCA (Table 1). One known LEPA occurrence has been documented in Parcel B2 and potential LEPA habitat exists in 5 of the 6 parcels, covering approximately 1,032 acres (Figure 1). Potential LEPA habitat is defined as areas containing both big sagebrush, *Artemisia tridentata* (ARTR), and loamy soils (LOAM). All parcels are located in Ada County and lie within or adjacent to the NCA.

**Table 1. Project Area Parcels, Ownership and Acreage**

Parcel	Total Acres	ARTR/LOAM Acres
B1	638.5	75.3
B2	13,084.0	906.5
B3	164.4	0.02
B4	960.5	49.7
B5	240.2	0.0
B6	938.9	0.7
<b>Total</b>	<b>16,026.4</b>	<b>1,032.2</b>

## Land Cover

Vegetative land cover of the project area is dominated by exotic and invasive species (Spaete et al. 2013). Approximately 59% of the project area is covered by cheatgrass (43.7%) and Exotic Annuals (15.2%) (Table 2). Native land cover types that are important to resident and migratory wildlife (e.g. birds, ungulates) encompass roughly a third (32.3%) of the project parcels; most notably, Sandberg bluegrass (13.0%), sagebrush (11.5%), and large bunch grasses (2.2%). Bare ground represents 7.9% of land cover. None of the project parcels contain permanent or intermitted streams represented by the Water land cover type.



**Figure 1. Project parcels and potential habitat (big sagebrush and loamy soil) for Stage 3 Surveys**

**Table 2. Project Area Land Cover**

Land Cover	Acres	Percent
Agriculture	45.4	0.3%
Bare Ground	1,262.9	7.9%
Cheatgrass	6,999.5	43.7%
Cinder Ground	96.4	0.6%
Exotic Annuals	2,437.8	15.2%
Kochia	309.0	1.9%
Large Bunch Grass	353.2	2.2%
Playa Ground	1.7	0.01%
Rabbitbrush	311.5	1.9%
Sagebrush	1,840.0	11.5%
Sandberg Bluegrass	2,083.6	13.0%
Shadscale Saltbush	126.2	0.8%
Water	0.0	0.0%
Winterfat	159.1	1.0%
<b>Total</b>	<b>16,026.4</b>	<b>100.0%</b>

## Land Cover Type Descriptions

The land cover classes were established by IDARNG based on remote sensing maps created by BSU (Spaete et al. 2016). The land cover types detailed below represent the dominant vegetation cover of each area surveyed.

### Agriculture

Agricultural land represents a small portion of land cover within the project area and is broadly defined as land used primarily for production of food and fiber. This land cover type consists of row crops, orchards, irrigated pasture and hay fields, dry farm crops and fallow fields.

### Bare Ground

This cover type includes paved, gravel and dirt roads, as well as bare ground. Roads within the project area are vectors for exotic and/or invasive weed species. Common species found along roadsides include: cheatgrass, rush skeletonweed (*Chondrilla juncea*), bur buttercup (*Ranunculus testiculatus*), Russian thistle (*Salsola kali*), tumble mustard (*Sisymbrium altissimum*), and flixweed (*Descurainia sophia*).

### Cheatgrass

Cheatgrass is a highly invasive grass that represents nearly half of the land cover within the project area. Cheatgrass outcompetes native plants in part because it is a prolific seed producer (can germinate in spring or autumn), is tolerant of grazing, increases the intensity of wildfires and reestablishes quickly post-wildfire (Pellant 1996).



**Invasive cheatgrass represents nearly half of land cover within the project area (photo by Ecosystem Sciences).**

### Cinder Ground

The Cinder Ground cover type represents crushed cinder rock that is used for road cover and firing ranges throughout the Idaho Army National Guard's Orchard Combat Training Center due to its durability.

### Large Bunch Grass

There are two primary grass species that make up the Large Bunch Grass cover type: Crested wheatgrass (*Agropyron cristatum*) and Great Basin wildrye (*Leymus cinereus*). Both species are long-lived, drought-tolerant grasses with extensive root systems that are often planted as post-wildfire due to their ability to stabilize disturbed soils. Crested wheatgrass grows between 1 and 3 feet tall (Ogle 2006), while Great Basin wildrye grows between 3 to 6 feet tall (Ogle 2003).

### Exotic Annuals

The Exotic Annuals cover type is the second most abundant cover type within the project area. This cover type is dominated by exotic and often invasive plants. Species common within this cover type include rush skeletonweed, bur buttercup, cheatgrass, Russian thistle, flixweed and tumble mustard.

### Kochia

Kochia (*Bassia scopara*) is an introduced, annual forb that is shrub-like in appearance. It is adapted to semi-arid climates typical of the project area. As a primary cover type, Kochia represents a small percentage of land cover, though it is common throughout the project area within other cover types.

### Playa Ground

Playa Ground represents sparsely vegetated, flat-bottom depressions that are periodically covered by water. The slow infiltration of water coupled with high evaporation rates causes the deposition of salt, sand and mud along the surface and edges of the depression. Few plants are adapted to growing in playas, however Davis' peppergrass (*Lepidium davisii*) is found within this land cover type.



**Native Sandberg bluegrass is the second most abundant land cover type (photo by S. Hagwood).**

### Sandberg Bluegrass

Sandberg bluegrass is a native perennial bunchgrass widespread throughout the western United States. It is highly adaptable and can be found in more than 20 ecoregions (Halvorson 2011). Sandberg bluegrass is drought-tolerant with extensive root systems, and is fairly resilient to grazing and trampling (Halvorson 2011). It is the third most abundant land cover type within the project area.

### Rabbitbrush

There are two species of rabbitbrush that consist of this cover type: green rabbitbrush (*Chrysothamnus viscidiflorus*) and gray rabbitbrush (*Ericameria nauseosus*). Rabbitbrush is generally subdominant in sagebrush communities, but can become widespread in areas of high disturbance, such as areas that receive heavy grazing or after wildfire, due to their ability to persist in coarse, alkaline soils (Tilley and St. John 2012).

### Sagebrush

There are five different sagebrush species known to occur within the NCA. Sagebrush was the fourth most abundant land cover type within the project area. The primary species documented was big sagebrush (*Artemisia tridentata*). Big sagebrush is a native shrub that provides important habitat for numerous animals, from big game to birds (Tilley et al. 2006). Big sagebrush often grows at low to mid elevations (600-1200 feet), but it is adaptable to a wide range of precipitation regimes and soil conditions (Tilley et al. 2006).



**Sagebrush, the second most abundant land cover type, provides critical habitat (photo by Ecosystem Sciences).**

### Shadscale Saltbush

Shadscale saltbush (*Atriplex confertifolia*) is a native shrub that occurs in warm and cold shrub steppe environments throughout the western United States. It is highly drought tolerant, and can persist in poor soils, including saline soils (Tilley and St. John 2013). Shadscale saltbush is generally a subdominant species; none of the land cover was documented as shadscale-dominant.

### Water

The Water land cover type represents permanent rivers and streams, intermittent streams (washes), canals and stock ponds. No water was mapped within the project area parcels.

### Winterfat

Winterfat (*Krascheninnikovia lanata*) is a low growing shrub that grows in desert shrub and pinyon communities at elevations ranging from sea level to 10,000 feet (Ogle 2003). Winterfat is considered a superior browse for livestock and wildlife due to its high protein content (Ogle 2003). Winterfat has an extensive root system and can establish fairly easily on drastically disturbed sites or poorly developed soils (Ogle 2003). Around 1.0% of the land cover was predominantly winterfat, though it occurs as a subdominant species throughout the project area.

## Methods

### Existing Information

#### *Lepidium papilliferum* (LEPA)

Slickspot peppergrass (*Lepidium papilliferum*, LEPA) was recently reinstated as threatened under the Endangered Species Act by the U.S. Fish and Wildlife Service (USFWS 2016) and is ranked as S1 “critically imperiled” in the State of Idaho.

Slickspot peppergrass is a small, flowering plant in the mustard family (Brassicaceae). It is a tap-rooted



Slickspot Peppergrass (photo by Ecosystem Sciences)

plant with intricate branches and small wedge-shaped leaves that are covered with fine, soft hairs (St. John and Ogle 2009). It blooms from April to June with numerous, small white flowers that are only 0.1 inches in diameter (St. John and Ogle 2009). As its name suggests, it is specialized to occupy a specific microhabitat referred to as “slickspots”, which are small depressions in the soil that collect water due to an underlying clay layer (St. John and Ogle 2009). These slickspots occur within sagebrush-steppe communities on loamy soils, almost exclusively in southwestern Idaho (St.

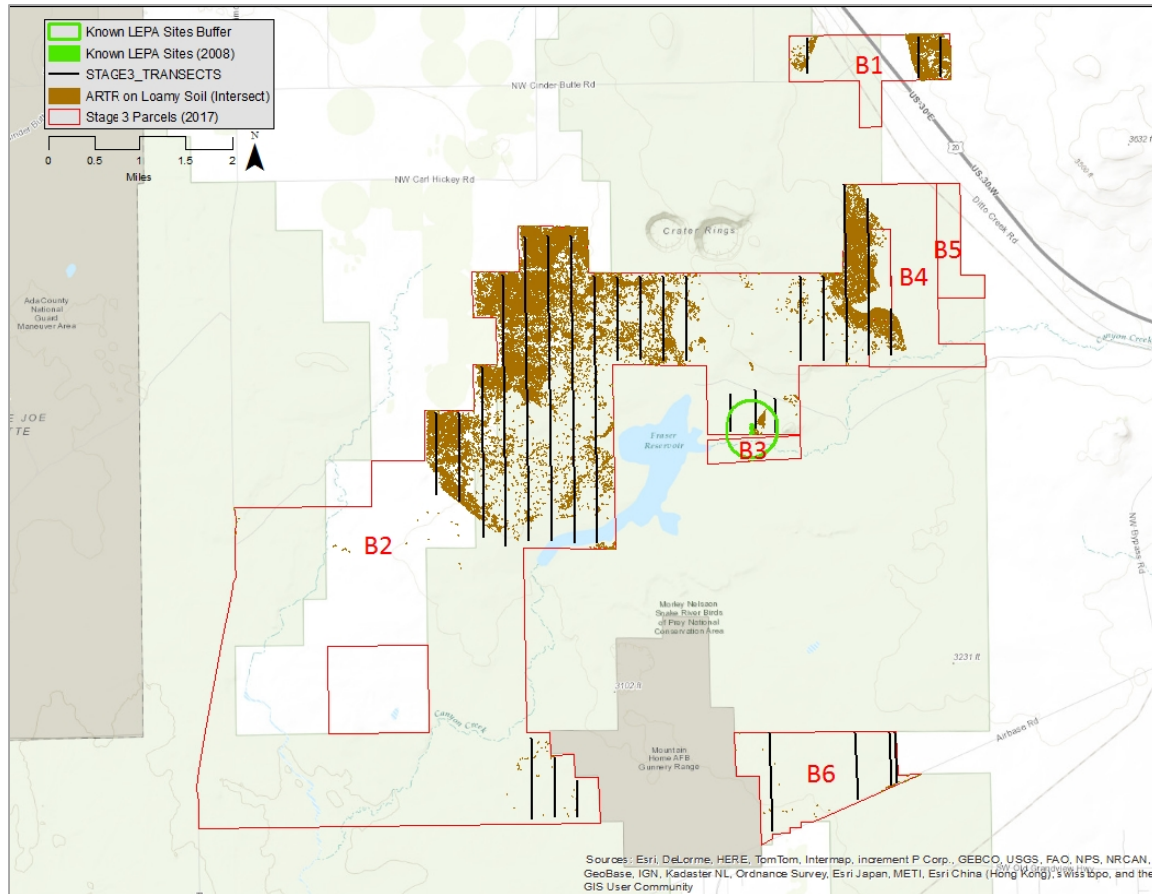
John and Ogle 2009). Slickspots are mostly devoid of vegetation and have a smooth, pan-like surface.

#### Known LEPA Occurrences

One known LEPA occurrence has been documented in the project area within Parcel B2, near the border and directly north of Parcel B3 (Figure 2). The species was last observed in July of 2008 (IDFG 2015). The BLM Slickspot Peppergrass Inventory and Clearance Standards (May 13, 2010) (BLM 2010) recommends establishing a ¼ mile buffer around occupied (containing LEPA) slickspots, and a complete survey should be performed.

#### Field Investigation

Stage 3 surveys were conducted following methods outlined in the BLM Slickspot Peppergrass Inventory and Clearance Standards (BLM 2010). These standards state that “areas identified as containing slickspots would be inventoried using the methods and transect lines described for Stage 1” (BLM 2010); therefore, the LEPA Stage 3 surveys followed the same transects used in 2016. However, only areas that included the Sagebrush vegetation type located on loamy soils (NRCS 2015) representing potential habitat were surveyed. Figure 2 depicts the Stage 3 survey transects.



**Figure 2. Transects within the Stage 3 Survey Project Area**

Mapping results found no potential habitat within Parcel B5; therefore surveys focused on potential habitat within the remaining 5 parcels and within a ¼ mile buffer of one known LEPA occurrence, which encompasses part of Parcel B2 and Parcel B3 (Figure 2).

Transects were spaced 100 to 400 meters apart depending on the parcel size and area of interest. Surveyors walked each transect in a meandering fashion looking for slickspots (potential habitat) and slickspot peppergrass (LEPA). A complete survey for slickspot peppergrass was performed within the buffer area containing the known LEPA occurrence.

Observed LEPA were recorded via a handheld GPS (Trimble Juno series) unit with a data dictionary based on site clearance survey forms by the BLM (2010). When slickspots (potential habitat) were observed, the spatial location and numbers observed were also recorded via GPS.

Areas containing LEPA are classified as “occupied”. Areas containing slickspots that do not support LEPA are deemed “unoccupied”. If no slickspots are located, then the area is classified as “non-habitat”.



## Stage 3 Survey Results

Stage 3 surveys were carried out by Ecosystem Sciences from July to August 2017. Potential habitat containing slickspots was found in Parcels B1, B3, B4 and B6, while no habitat was found in Parcel B5. One population containing over 100 individuals of LEPA was found in Parcel B2 (Figures 3 and 4; Appendix A). Following the discovery of this population, a thorough survey of the surrounding area was performed, but no other LEPA was found. Table 3 summarizes the results of the Stage 3 Surveys.

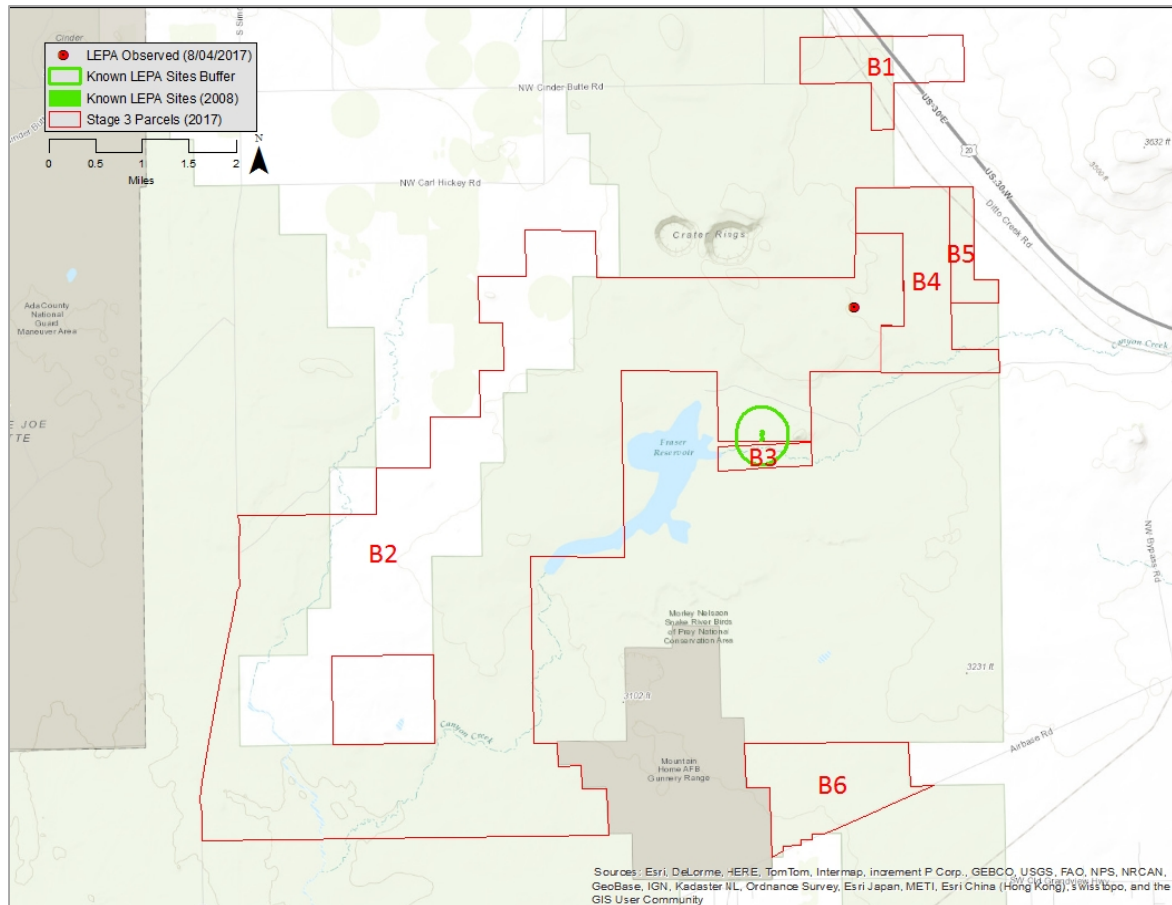


Figure 3. Stage 3 LEPA observation

Table 3. Stage 3 Survey Determination

Parcel	Classification
B1	Unoccupied
B2	Occupied
B3	Unoccupied
B4	Unoccupied
B5	Non-Habitat
B6	Unoccupied



Figure 4. LEPA documented in Parcel B2

## Discussion

The results of the Stage 3 surveys identified mostly unoccupied habitat, in which slickspots were present but sparsely distributed within the surveyed area (Figure 5). Few areas of dense sagebrush occur within the project area parcels. It was within a relatively dense sagebrush area that the one population of slickspot peppergrass was identified. These field observations comport with land cover data showing that over half of the project area is covered by Cheatgrass (43.7%) and Exotic Annuals (15.2%). Cheatgrass in particular, is highly invasive and may eventually out-compete native plant communities and encroach within degrading slickspots. Another factor that may affect slickspot peppergrass habitat is grazing. Much of the project area is subject to grazing pressure (Figure 5). Slickspots are readily degraded by trampling, which then allows for vegetation encroachment, such as cheatgrass (Mancuso et al. 1998). These factors may have impacted slickspot peppergrass within the project area.

## Conclusion

Ecosystem Sciences performed Stage 3 surveys for slickspot peppergrass in parcels B1, B2, B3, B4, B5 and B6 on Bureau of Land Management (BLM) land within the Morley Nelson Snake River Birds of Prey NCA. The results of the Stage 3 Survey found Parcel B5 to be “non-habitat”; Parcels B1, B3, B4 and B6 to be “unoccupied” habitat; and Parcel B2 to be “occupied” habitat.



**Figure 5. Cheatgrass with sparse sagebrush was commonly observed within the project parcels (top); heavy impacts from cattle within slickspots were documented (bottom)**

## Literature Cited

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## Appendix A – BLM Sighting Form

APPENDIX A  
SIGHTING FORM  
Page 1 of 2

Location Data

Species Code<sup>1</sup>: LEPA Scientific Name: Lepidium papilliferum

Location ID: 01 Occurrence ID: 01

Administrative Unit: Parcel B2 SRBOPNCA Slope%: 0.3% (flat)

Landform: Plain Area(Acres): <1 Rock: NO Soil: Colthorp-minveno silt

Aspect(°): EAST(109.5°) Elevation(ft): 971.2m (3186ft) Moisture: N/A Accuracy: <5m  
loam

Location Note: Within the Snake River Birds of Prey NCS (Parcel B2). UTM East: 4781516.11001

UTM North: 595232.607309

Location Direction: Elmore County, 1.3 miles south south-east of Crater Rings in SRBOPNCA. UTM Zone: 11N

Survey Data

Project Name: IDARNG Stage 3 Survey Survey ID: IDARNG\_STAGE3\_1

Survey Date: August 2nd 2017 Date Correct: Y/N Observer: TB, DK, ZH

Survey Method: Intuitive Control

Survey Note: Tamsen Binggeli, Danielle Maguire and Zach Herzfeld encountered the LEPA population while walking transects for the IDARNG 2017 LEPA surveys. About 100 individuals were encountered at the site. No specimen was collected. Photos are available.

Collection Data

Collection Type: \_\_\_\_\_ Collection Date: \_\_\_\_\_ Collection ID: \_\_\_\_\_

Collection Location Name: \_\_\_\_\_

Collector: \_\_\_\_\_ Collection Identifier: \_\_\_\_\_

**APPENDIX A  
SIGHTING FORM  
Page 2 of 2**

**Community Observation Data**

Vegetation Series Code Name: Sagebrush (see report - Spaete et al. 2016)

Plant Association Group Code Name: ARTR

Plant Association Code Name: ARTR

Stand Age: N/A Total Community Cover(%): 50%

Primary Species Total Quantity:         

Plant Community Notes: The LEPA population was found in a sagebrush (ARTR) dominated community. BRTE (Cheatgrass) was also present and abundant. Other dominant species of the community include burr buttersup (RATE) and Sandberg's bluegrass (POSE).

<u>Survey Feature Observations</u>			<u>Species Associated to Community</u>			
<u>Feature Type</u>	<u>Feature Species Code</u>	<u>Feature Use</u>	<u>Species Code</u>	<u>Scientific Name</u>	<u>%Cover</u>	<u>Abundance</u>
<u>PLANT</u>	<u>LEPA</u>	<u>        </u>	<u>ARTR</u>	<u>Artemisia</u>	<u>40</u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>BRTE</u>	<u>Bromus</u>	<u>35</u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>RATE</u>	<u>Ranunculus</u>	<u>5</u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

Species Biology for Primary Species

<u>Phenology</u>	<u>Quantity</u>	<u>Age Class</u>
<u>Rosette</u>	<u>60</u>	<u>&lt;1 year</u>
<u>Flowering/seeding</u>	<u>30</u>	<u>&gt;1 year</u>
<u>Dying</u>	<u>10</u>	<u>&gt;1 year</u>
<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>
<u>        </u>	<u>        </u>	<u>        </u>

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<sup>1</sup>Outlined text indicates required fields, values provided with ISMS documentation.



<i>Collema curtisporum</i>		short-spored jelly lichen		G3	S2		3													X	
<i>Corydalis caseana</i> ssp. <i>hastata</i>	<i>Capnoides hastatum</i>	Case's corydalis		G5T3	S3	2014	3														X
<i>Crepis bakeri</i> ssp. <i>idahoensis</i>		Idaho hawkbeard		G4T2	S2		2														X
<i>Cryptantha caespitosa</i>		tufted cryptantha		G4	S1		4														X
<i>Cryptantha propria</i>	<i>Oreocarya propria</i>	Malheur cryptantha		G4	S2		4	X													X
<i>Cryptantha sericea</i>	<i>Oreocarya sericea</i>	silky cryptantha		G4	*		4														X
<i>Cuscuta denticulata</i>		sepal-tooth dodder		G4G5	S1		3														X
<i>Cymopterus acaulis</i> var. <i>greeleyorum</i>		Greeley's wavewing		G5T2	S2		3		X	X	X	X									X
<i>Cymopterus ibapensis</i>	<i>Epallageiton ibapensis</i>	Ibapah springparsley		G4	S2		4														X
<i>Cyperus bipartitus</i>	<i>Cyperus rivularis</i>	shining flatsedge		G5	S2		4	X													X
<i>Cypripedium fasciculatum</i>		clustered lady's slipper		G4	S3		3														X
<i>Damasonium californicum</i>	<i>Machaerocarpus californicus</i>	fringed waterplantain		G4	S2		4			X	X	X									
<i>Dermatocarpon lorenzianum</i>		silverskin lichen		G2	S1		3	X													
<i>Dimeresia howellii</i>		dimeresia or doublet		G4?	S2		3			X	X										X
<i>Downingia bacigalupii</i>		Bacigalupi's downingia		G4	S2		4			X	X										X
<i>Downingia insignis</i>		harlequin calicoflower		G4	S1		3				X										
<i>Draba globosa</i>	<i>Draba apiculata</i>	pointed or beavertip draba		G3	S2		4														X
<i>Eatonella nivea</i>		white eatonella or false tickhead		G4G5	S3	2014	4	X	X	X	X	X									X
<i>Epilobium palustre</i>		swamp willow-herb		G5	S3		4														X
<i>Epipactis gigantea</i>		chatterbox or stream orchid		G4	S3		3	X		X	X	X	X								X
<i>Ericameria bloomeri</i>	<i>Haplopappus bloomeri</i>	rabbitbrush or Bloomer's goldenweed		G4	S1		4				X										
<i>Ericameria discoidea</i> var. <i>winwardii</i>	<i>Ericameria winwardii</i>	Windward's goldenbush		G4G5T1	S1	2014	3														X
<i>Eriogonum capistratum</i> var. <i>welshii</i>		Welsh's buckwheat		G4T2Q	S2		2														X
<i>Eriogonum crosbyae</i> var. <i>mystrium</i>	<i>Eriogonum prociduum</i> var. <i>mystrium</i>	Pueblo Mountains buckwheat		G3TNR	S1	2014	3				X										
<i>Eriogonum desertorum</i>		Great Basin Desert buckwheat		G3Q	*		3														X
<i>Eriogonum hookeri</i>		Hooker's buckwheat		G5	S1		2														X
<i>Eriogonum novonudum</i>		false naked buckwheat		G4	S1	2014	3				X										
<i>Eriogonum ochrocephalum</i> var. <i>calcareum</i>	<i>Eriogonum calcareum</i> var. <i>calcareum</i>	calcareous buckwheat		G5T3	S2		3	X													
<i>Eriogonum ovalifolium</i> var. <i>focarium</i>		Craters-of-the-Moon wild buckwheat		G5T3	S3	2014	3														X
<i>Eriogonum shockleyi</i> var. <i>packardiae</i>		Packard's buckwheat		G5T2Q	S2		4	X	X	X	X	X									
<i>Eriogonum shockleyi</i> var. <i>shockleyi</i>		Shockey's or matted cowpie buckwheat		G5T4?	S2		4			X		X									
<i>Eriogonum soliceps</i>		Railroad Canyon buckwheat		G2	S1		3														X
<i>Eryngium articulatum</i>		jointed coyotehistle, beethistle		G5	SNR		4														X
<i>Glyptopleura marginata</i>		white-margined wax plant		G4G5	S3		4	X	X	X	X	X	X								
<i>Hackelia cronquistii</i>	<i>H. patens</i>	Cronquist's forget-me-not		G3	S1		3	X													
<i>Hackelia ophiobia</i>	<i>H. integrifolius</i>	Owyhee forget-me-not or stickseed		G3	S2		3			X	X										
<i>Halimolobos perplexa</i> var. <i>perplexa</i>		puzzling halimolobos		G4T3	S3		4														X
<i>Hierochloa odorata</i>	<i>Anthoxanthum nitens</i>	vanilla grass		G4G5	S1		2														X
<i>Howellia aquatilis</i>		water howellia	LT	G3	S1	2014	1														X
<i>Hymenoxys cooperi</i> var. <i>canescens</i>	<i>Actinea canescens</i> , <i>H. cooperi</i>	Cooper's rubber-plant		G4G5T4	S1	2014	4														X
<i>Hypericum majus</i>	<i>Hypericum canadense</i> var. <i>majus</i>	large Canadian St. John's wort		G5	S3	2014	4														X
<i>Ipomopsis polycladon</i>	<i>Gilia polycladon</i>	spreading gilia		G4	S2		3		X	X	?	X									X
<i>Juncus tweedyi</i>	<i>Juncus brevicaudatus</i>	Tweedy's rush		G3Q	*		4														X
<i>Kobresia simpliciuscula</i>		simple bog sedge		G5	S2		2														X
<i>Lepidium davisi</i>	<i>Lepidium montanum</i> ssp. <i>davisi</i>	Davis' peppergrass		G3	S3		3	X	X	X	X	X	X								
<i>Lepidium integrifolium</i>		thick-leaf pepperweed		G2G3	S1	2014	4														X
<i>Lepidium papilliferum</i>	<i>Lepidium montanum</i> var. <i>papilliferum</i>	slickspot peppergrass	LT	G2	S2		2	X	X			X									
<i>Leptodactylon glabrum</i>	<i>Linanthus glabrum</i>	Bruneau River prickly phlox		G2	S2		3				X		X								
<i>Lewisia sacajawea</i>		Sacajawea's bitterroot		G2	S2		4	X													
<i>Lilaea scilloides</i>	<i>Triglochin scilloides</i>	flowering quillwort		G5?	S3	2014	4				?	X	?								?
<i>Linanthus pungens</i>	<i>Linanthus pungens</i> ssp. <i>hazeltiae</i> , <i>Leptodactylon nunoense</i> ssp. <i>hazeltiae</i>	granite prickly phlox		G5	S2		4														X
<i>Lomatium packardiae</i>		Packard's desert parsley		G2	S2		2	X				X									
<i>Lomatium salmoniflorum</i>		Salmon River biscuitroot		G3	S3	2014	2														X
<i>Lomatogonium rotatum</i>		marsh felwort		G5	S1		3														X
<i>Lupinus uncialis</i>		inchhigh lupine		G4	S2		4			X	X										
<i>Melica stricta</i>		rock melic, nodding melicgrass		G4	S1	2014	4				X										
<i>Mentzelia congesta</i>		united blazingstar, ventana stickleaf		G5	S1		4														X
<i>Mentzelia mollis</i>		smooth stickleaf		G2	S2		2				X										
<i>Mimulus clivicola</i>	<i>Eunanus clivicola</i>	hill monkeyflower		G4	S3		4														X
<i>Mimulus evanescens</i>		disappearing monkeyflower		G3	SH	2014	4			X	?										
<i>Mimulus hymenophyllus</i>		thinsepal monkeyflower		G2	S1		4														X
<i>Mimulus washingtonensis</i>	<i>Mimulus ampilatus</i> , <i>M. patulus</i>	Washington monkeyflower		G4	S1		2	X													X
<i>Mirabilis macfarlanei</i>		Macfarlane's four-o'clock	LT	G2	S2		1														X
<i>Monardella angustifolia</i>		to be determined		G1	S1	2014	2				X										
<i>Muhlenbergia racemosa</i>		green muhly, marsh muhly		G5	S2		4														X
<i>Nassella viridula</i>	<i>Stipa viridula</i>	green needlegrass		G5	S2		4														X
<i>Nemacladus rigidus</i>		rigid threadbush		G4	S2		4		X	X	X	X									





# Map Unit Description

Ada County, Idaho

[Minor map unit components are excluded from this report]

Map unit: 6 - Baldock loam, 0 to 2 percent slopes

Component: Baldock (85%)

*The Baldock component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on valleys, stream terraces. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 10 - Bowns loam, 0 to 8 percent slopes, stony

Component: Bowns, stony surface (85%)

*The Bowns, stony surface component makes up 85 percent of the map unit. Slopes are 0 to 8 percent. This component is on plains, lava plains, volcanic pressure ridges. The parent material consists of silty alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY024ID Claypan Sodic ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.*

Map unit: 11 - Bowns-Rock outcrop complex, 0 to 15 percent slopes

Component: Bowns, extremely stony surface, moist (65%)

*The Bowns, extremely stony surface, moist component makes up 65 percent of the map unit. Slopes are 0 to 15 percent. This component is on volcanic pressure ridges, lava plains, plains. The parent material consists of silty alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY005ID Stony 10-12 - Provisional ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface.*

Component: Rock outcrop (20%)

*Generated brief soil descriptions are created for major soil components. The Rock outcrop is a miscellaneous area.*

Map unit: 14 - Brent loam, low rainfall, 2 to 4 percent slopes

Component: Brent (90%)

*The Brent component makes up 90 percent of the map unit. Slopes are 2 to 4 percent. This component is on stream terraces, foothills. The parent material consists of alluvium derived from igneous rock. Depth to a root restrictive layer, abrupt textural change, is 12 to 19 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY0011D Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 4s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8 percent. There are no saline horizons within 30 inches of the soil surface.*

# Map Unit Description

Ada County, Idaho

Map unit: 28 - Chardoton-Xeric Natrargids silty clay loams, 0 to 2 percent slopes

Component: Chardoton (50%)

*The Chardoton component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on lava plains, stream terraces. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 4s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Xeric Natrargids (20%)

*The Xeric Natrargids component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on plains, lava plains. The parent material consists of silty alluvium. Depth to a root restrictive layer, natric, is 1 to 3 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 18 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 17 within 30 inches of the soil surface.*

Map unit: 32 - Chilcott-Brent silt loams, 0 to 2 percent slopes

Component: Chilcott, low elevation (40%)

*The Chilcott, low elevation component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces, plains. The parent material consists of volcanic ash and/or mixed alluvium and/or loess. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Brent, dry (30%)

*The Brent, dry component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces, foothills. The parent material consists of alluvium derived from igneous rock. Depth to a root restrictive layer, abrupt textural change, is 12 to 19 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 4s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8 percent. There are no saline horizons within 30 inches of the soil surface.*

Map unit: 37 - Chilcott-Sebree complex, bedrock substratum, 0 to 2 percent slopes

Component: Chilcott, bedrock substratum, stony surface (60%)

*The Chilcott, bedrock substratum, stony surface component makes up 60 percent of the map unit. Slopes are 0 to 2 percent. This component is on plains, lava plains. The parent material consists of volcanic ash and/or mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The*

## Map Unit Description

Ada County, Idaho

Map unit: 37 - Chilcott-Sebree complex, bedrock substratum, 0 to 2 percent slopes

Component: Chilcott, bedrock substratum, stony surface (60%)

*calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Sebree, bedrock substratum, stony surface (20%)

*The Sebree, bedrock substratum, stony surface component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on lava plains, plains. The parent material consists of silty alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 18 within 30 inches of the soil surface.*

Map unit: 38 - Chilcott-Sebree complex, bedrock substratum, 2 to 4 percent slopes

Component: Chilcott, bedrock substratum, stony surface (55%)

*The Chilcott, bedrock substratum, stony surface component makes up 55 percent of the map unit. Slopes are 2 to 4 percent. This component is on plains, lava plains. The parent material consists of volcanic ash and/or mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Sebree, bedrock substratum, stony surface (25%)

*The Sebree, bedrock substratum, stony surface component makes up 25 percent of the map unit. Slopes are 2 to 4 percent. This component is on plains, lava plains. The parent material consists of silty alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 18 within 30 inches of the soil surface.*

Map unit: 106 - McCain stony silt loam, 2 to 4 percent slopes, extremely stony

Component: McCain, extremely stony surface (85%)

*The McCain, extremely stony surface component makes up 85 percent of the map unit. Slopes are 2 to 4 percent. This component is on plains, lava plains. The parent material consists of silty alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY005ID Stony 10-12 - Provisional ecological site. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface.*

# Map Unit Description

Ada County, Idaho

Map unit: 125 - Potratz silt loam, 2 to 4 percent slopes

Component: Potratz (85%)

*The Potratz component makes up 85 percent of the map unit. Slopes are 2 to 4 percent. This component is on lava plains, plains. The parent material consists of loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 128 - Potratz-Trevino complex, 4 to 12 percent slopes

Component: Potratz (50%)

*The Potratz component makes up 50 percent of the map unit. Slopes are 4 to 12 percent. This component is on plains, lava plains. The parent material consists of loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Trevino, extremely stony surface (35%)

*The Trevino, extremely stony surface component makes up 35 percent of the map unit. Slopes are 4 to 12 percent. This component is on valleys, lava plains. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY004ID Shallow Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 129 - Power silt loam, 0 to 2 percent slopes

Component: Power, plowed (85%)

*The Power, plowed component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on lava plains, plains. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 133 - Power-McCain silt loams, 0 to 2 percent slopes

Component: Power, dry (60%)

*The Power, dry component makes up 60 percent of the map unit. Slopes are 0 to 2 percent. This component is on plains, lava plains. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural*

# Map Unit Description

Ada County, Idaho

Map unit: 133 - Power-McCain silt loams, 0 to 2 percent slopes

Component: Power, dry (60%)

*drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: McCain (30%)

*The McCain component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces, lava plains, plains. The parent material consists of silty alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface.*

Map unit: 134 - Power-McCain silt loams, 2 to 4 percent slopes

Component: Power, dry (60%)

*The Power, dry component makes up 60 percent of the map unit. Slopes are 2 to 4 percent. This component is on plains, lava plains. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: McCain (30%)

*The McCain component makes up 30 percent of the map unit. Slopes are 2 to 4 percent. This component is on lava plains, plains, stream terraces. The parent material consists of silty alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface.*

Map unit: 158 - Rock outcrop-Trevino complex, 5 to 20 percent slopes

Component: Rock outcrop (40%)

*Generated brief soil descriptions are created for major soil components. The Rock outcrop is a miscellaneous area.*

Component: Trevino, extremely stony surface (30%)

*The Trevino, extremely stony surface component makes up 30 percent of the map unit. Slopes are 5 to 20 percent. This component is on plains, lava plains. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon*

# Map Unit Description

Ada County, Idaho

Map unit: 158 - Rock outcrop-Trevino complex, 5 to 20 percent slopes

Component: Trevino, extremely stony surface (30%)

*is about 2 percent. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 159 - Rubble land

Component: Rubble land (100%)

*Generated brief soil descriptions are created for major soil components. The Rubble land is a miscellaneous area.*

Map unit: 163 - Scism silt loam, bedrock substratum, 0 to 2 percent slopes

Component: Scism, bedrock substratum (85%)

*The Scism, bedrock substratum component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on lava plains, plains. The parent material consists of volcanic ash and/or mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 28 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 8 within 30 inches of the soil surface.*

Map unit: 182 - Trevino-Potratz complex, 0 to 4 percent slopes

Component: Trevino, extremely stony surface (50%)

*The Trevino, extremely stony surface component makes up 50 percent of the map unit. Slopes are 0 to 4 percent. This component is on lava plains, plains. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY004ID Shallow Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Potratz (30%)

*The Potratz component makes up 30 percent of the map unit. Slopes are 0 to 4 percent. This component is on lava plains, plains. The parent material consists of loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 186 - Truesdale fine sandy loam, 0 to 2 percent slopes

Component: Truesdale (85%)

*The Truesdale component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on plains, lava plains. The parent material consists of mixed alluvium and/or lacustrine deposits and/or loess. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60*

# Map Unit Description

Ada County, Idaho

Map unit: 186 - Truesdale fine sandy loam, 0 to 2 percent slopes

Component: Truesdale (85%)

*inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 28 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface.*

Map unit: 188 - Truesdale fine sandy loam, 4 to 8 percent slopes

Component: Truesdale (85%)

*The Truesdale component makes up 85 percent of the map unit. Slopes are 4 to 8 percent. This component is on plains, lava plains. The parent material consists of mixed alluvium and/or lacustrine deposits and/or loess. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 28 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface.*

Map unit: 196 - Vanderhoff soils, 30 to 60 percent slopes

Component: Vanderhoff, extremely stony surface (85%)

*The Vanderhoff, extremely stony surface component makes up 85 percent of the map unit. Slopes are 30 to 60 percent. This component is on canyons, canyonlands. The parent material consists of alluvium and/or loess and/or colluvium over residuum weathered from siltstone and/or mudstone and/or tuff. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY0101D Calcareous Loam 7-10 Atco-pide4/achy-act7 ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 9 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 6 within 30 inches of the soil surface.*

Map unit: 4000 - Typic Torriorthents-Rubble land complex, 35 to 90 percent slopes

Component: Typic Torriorthents (60%)

*The Typic Torriorthents component makes up 60 percent of the map unit. Slopes are 35 to 90 percent. This component is on canyon walls, lava plains. The parent material consists of colluvium derived from basalt over sandy and silty lacustrine deposits. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 72 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 8. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 5 within 30 inches of the soil surface.*

Component: Rubble land (20%)

*Generated brief soil descriptions are created for major soil components. The Rubble land is a miscellaneous area.*

Map unit: 4005 - Corder-Tadpole complex, 2 to 8 percent slopes

Component: Corder (65%)

*The Corder component makes up 65 percent of the map unit. Slopes are 2 to 8 percent. This component is on volcanic pressure ridges on lava flows, plug domes, shield volcanoes. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell*



## Map Unit Description

Ada County, Idaho

Map unit: 4005 - Corder-Tadpole complex, 2 to 8 percent slopes

Component: Corder (65%)

*potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 12 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 5 within 30 inches of the soil surface.*

Component: Tadpole, saline (20%)

*The Tadpole, saline component makes up 20 percent of the map unit. Slopes are 2 to 8 percent. This component is on plug domes, volcanic pressure ridges, lava flows, shield volcanoes. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.*

Map unit: 4009 - Tadpole-Scism complex, 8 to 20 percent slopes

Component: Tadpole, saline (45%)

*The Tadpole, saline component makes up 45 percent of the map unit. Slopes are 8 to 20 percent. This component is on escarpments of lava flows, plug domes, shield volcanoes, lava plains. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.*

Component: Scism, dry (30%)

*The Scism, dry component makes up 30 percent of the map unit. Slopes are 8 to 20 percent. This component is on shield volcanoes, lava plains, plug domes, escarpments of lava flows. The parent material consists of loess and/or weathered volcanic ash over loamy alluvium. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 8 within 30 inches of the soil surface.*

Map unit: 4010 - Tadpole-Purdam-Trevino complex, 0 to 5 percent slopes

Component: Tadpole, saline (45%)

*The Tadpole, saline component makes up 45 percent of the map unit. Slopes are 0 to 4 percent. This component is on shield volcanoes, lava flows, lava troughs. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.*

# Map Unit Description

Ada County, Idaho

Map unit: 4010 - Tadpole-Purdam-Trevino complex, 0 to 5 percent slopes

Component: Purdam, dry (25%)

*The Purdam, dry component makes up 25 percent of the map unit. Slopes are 1 to 5 percent. This component is on lava flows, lava troughs, shield volcanoes. The parent material consists of silty alluvium and/or loess over coarse-loamy alluvium. Depth to a root restrictive layer, duripan, is 40 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 25 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 4 within 30 inches of the soil surface.*

Component: Trevino, very stony surface (15%)

*The Trevino, very stony surface component makes up 15 percent of the map unit. Slopes are 1 to 5 percent. This component is on volcanic pressure ridges on lava flows, tumuli on lava flows, lava troughs, shield volcanoes. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.*

Map unit: 4103 - Banbury-McPan-Rock outcrop complex, 2 to 15 percent slopes

Component: Banbury (40%)

*The Banbury component makes up 40 percent of the map unit. Slopes are 2 to 12 percent. This component is on shield volcanoes, volcanic pressure ridges on lava flows, tumuli on lava flows. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: McPan (25%)

*The McPan component makes up 25 percent of the map unit. Slopes are 2 to 15 percent. This component is on shield volcanoes, lava flows. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, duripan, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Rock outcrop (15%)

*Generated brief soil descriptions are created for major soil components. The Rock outcrop is a miscellaneous area.*

# Map Unit Description

Ada County, Idaho

Map unit: 4104 - Catchell-Chilcott-Banbury complex, 1 to 12 percent slopes

Component: Catchell, dry (30%)

*The Catchell, dry component makes up 30 percent of the map unit. Slopes are 1 to 8 percent. This component is on lava plains, shield volcanoes, volcanic pressure ridges on lava flows. The parent material consists of loess over silty alluvium and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, duripan, is 20 to 38 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent.*

Component: Chilcott, dry (30%)

*The Chilcott, dry component makes up 30 percent of the map unit. Slopes are 1 to 4 percent. This component is on lava plains, shield volcanoes, lava troughs. The parent material consists of loess over silty alluvium over loamy alluvium and/or sandy and gravelly alluvium. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Banbury (20%)

*The Banbury component makes up 20 percent of the map unit. Slopes are 2 to 12 percent. This component is on tumuli on lava flows, lava plains, shield volcanoes, volcanic pressure ridges on lava flows. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 4105 - Chilcott-Catchell-Chardoton complex, 0 to 4 percent slopes

Component: Chilcott, dry (30%)

*The Chilcott, dry component makes up 30 percent of the map unit. Slopes are 1 to 4 percent. This component is on lava troughs, lava plains, shield volcanoes. The parent material consists of loess over silty alluvium over loamy alluvium and/or sandy and gravelly alluvium. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Catchell, dry (25%)

*The Catchell, dry component makes up 25 percent of the map unit. Slopes are 1 to 4 percent. This component is on shield volcanoes, lava flows, lava plains. The parent material consists of loess over silty alluvium and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, duripan, is 20 to 38 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent.*

## Map Unit Description

Ada County, Idaho

Map unit: 4105 - Chilcott-Catchell-Chardoton complex, 0 to 4 percent slopes

Component: Chardoton (20%)

*The Chardoton component makes up 20 percent of the map unit. Slopes are 0 to 1 percent. This component is on lava troughs, lava plains, shield volcanoes. The parent material consists of loess over silty alluvium over loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 4108 - Chardoton-Power complex, 0 to 2 percent slopes

Component: Chardoton (50%)

*The Chardoton component makes up 50 percent of the map unit. Slopes are 0 to 1 percent. This component is on shield volcanoes, lava plains, lava troughs. The parent material consists of loess over silty alluvium over loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Power, dry (25%)

*The Power, dry component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on lava plains, shield volcanoes, lava troughs. The parent material consists of silty alluvium and/or loess over loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 2 within 30 inches of the soil surface.*

Map unit: 4109 - Chilcott-Chardoton complex, 0 to 4 percent slopes

Component: Chilcott, dry (45%)

*The Chilcott, dry component makes up 45 percent of the map unit. Slopes are 1 to 4 percent. This component is on lava plains, shield volcanoes, lava troughs. The parent material consists of loess over silty alluvium over loamy alluvium and/or sandy and gravelly alluvium. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Component: Chardoton (40%)

*The Chardoton component makes up 40 percent of the map unit. Slopes are 0 to 1 percent. This component is on lava plains, shield volcanoes, lava troughs. The parent material consists of loess over silty alluvium over loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This*

# Map Unit Description

Ada County, Idaho

Map unit: 4109 - Chilcott-Chardoton complex, 0 to 4 percent slopes

Component: Chardoton (40%)

*component is in the R011XY022ID Claypan ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.*

Map unit: 4113 - Dolman-Minveno-Scism complex, 0 to 8 percent slopes

Component: Dolman (35%)

*The Dolman component makes up 35 percent of the map unit. Slopes are 1 to 8 percent. This component is on shield volcanoes, lava flows, lava plains. The parent material consists of loess and/or weathered volcanic ash over loamy alluvium over sandy and gravelly alluvium. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 34 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 2 within 30 inches of the soil surface.*

Component: Minveno (30%)

*The Minveno component makes up 30 percent of the map unit. Slopes are 1 to 8 percent. This component is on lava plains, shield volcanoes, volcanic pressure ridges on lava flows. The parent material consists of loess and/or weathered volcanic ash over basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 5 within 30 inches of the soil surface.*

Component: Scism, dry (15%)

*The Scism, dry component makes up 15 percent of the map unit. Slopes are 0 to 3 percent. This component is on shield volcanoes, lava plains, lava troughs. The parent material consists of loess and/or weathered volcanic ash over loamy alluvium. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY003ID Combined With 11x-01 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 8 within 30 inches of the soil surface.*

Map unit: 9999 - Water

Component: Water (100%)

*Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.*

## Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

[Minor map unit components are excluded from this report]

Map unit: 7 - Bahem silt loam, 0 to 4 percent slopes

Component: Bahem (80%)

The Bahem component makes up 80 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of silty alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface.

Map unit: 9 - Bahem-Minidoka-Trevino complex, 0 to 4 percent slopes

Component: Bahem (45%)

The Bahem component makes up 45 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of silty alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Minidoka (25%)

The Minidoka component makes up 25 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of silty alluvium and/or loess and/or lacustrine deposits. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 28 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Trevino (20%)

The Trevino component makes up 20 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 8 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface.

Map unit: 24 - Chilcott silt loam, 0 to 4 percent slopes

Component: Chilcott (85%)

The Chilcott component makes up 85 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of volcanic ash and/or mixed alluvium and/or loess. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 24 - Chilcott silt loam, 0 to 4 percent slopes

Component: Chilcott (85%)  
inches of the soil surface.

Map unit: 29 - Chilcott-Power complex, 0 to 8 percent slopes

Component: Chilcott (55%)

The Chilcott component makes up 55 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of volcanic ash and/or mixed alluvium and/or loess. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Power (20%)

The Power component makes up 20 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Map unit: 30 - Cinder land

Component: Cinder land (75%)

Generated brief soil descriptions are created for major soil components. The Cinder land is a miscellaneous area.

Map unit: 31 - Colthorp stony silt loam, 0 to 8 percent slopes, very stony

Component: Colthorp, very stony surface (80%)

The Colthorp, very stony surface component makes up 80 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 13 percent. There are no saline horizons within 30 inches of the soil surface.

Map unit: 33 - Colthorp-Kunaton complex, 0 to 8 percent slopes

Component: Colthorp (40%)

The Colthorp component makes up 40 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 13 percent. There are no saline



# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 33 - Colthorp-Kunaton complex, 0 to 8 percent slopes

Component: Colthorp (40%)

horizons within 30 inches of the soil surface.

Component: Kunaton (40%)

The Kunaton component makes up 40 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface.

Map unit: 34 - Colthorp-Kunaton-Rubble land complex, 8 to 20 percent slopes

Component: Colthorp (35%)

The Colthorp component makes up 35 percent of the map unit. Slopes are 8 to 20 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 13 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Kunaton (30%)

The Kunaton component makes up 30 percent of the map unit. Slopes are 8 to 12 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent.

Component: Rubble land (15%)

Generated brief soil descriptions are created for major soil components. The Rubble land is a miscellaneous area.

Map unit: 35 - Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony

Component: Colthorp, stony surface (50%)

The Colthorp, stony surface component makes up 50 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 13 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Minveno, stony surface (30%)

The Minveno, stony surface component makes up 30 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of volcanic ash and/or loess and/or mixed silty alluvium over bedrock derived from volcanic rock and/or basalt. Depth to a root restrictive

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 35 - Colthorp-Minveno silt loams, 0 to 8 percent slopes, stony

Component: Minveno, stony surface (30%)

layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Map unit: 69 - Garbutt-Trevino association, 4 to 20 percent slopes

Component: Garbutt (50%)

The Garbutt component makes up 50 percent of the map unit. Slopes are 4 to 20 percent. The parent material consists of silty alluvium and/or lacustrine deposits and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 9 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Component: Trevino (25%)

The Trevino component makes up 25 percent of the map unit. Slopes are 4 to 20 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 8 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 6e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface.

Map unit: 88 - Kunaton silt loam, 0 to 4 percent slopes

Component: Kunaton (75%)

The Kunaton component makes up 75 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface.

Map unit: 92 - Lankbush-Jenness association, 0 to 4 percent slopes

Component: Lankbush (50%)

The Lankbush component makes up 50 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of mixed alluvium and/or lacustrine deposits and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 92 - Lankbush-Jenness association, 0 to 4 percent slopes

Component: Lankbush (50%)  
surface.

Component: Jenness (30%)

The Jenness component makes up 30 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of alluvium derived from igneous rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY015ID Loamy Bottom 8-14 Artrt/leci4 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

Map unit: 103 - Minidoka-Minveno silt loams, 0 to 4 percent slopes

Component: Minidoka (60%)

The Minidoka component makes up 60 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of silty alluvium and/or loess and/or lacustrine deposits. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 28 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Minveno (20%)

The Minveno component makes up 20 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of volcanic ash and/or loess and/or mixed silty alluvium over bedrock derived from volcanic rock and/or basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Map unit: 107 - Minveno-Minidoka silt loams, 0 to 8 percent slopes, stony

Component: Minveno, stony surface (55%)

The Minveno, stony surface component makes up 55 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of volcanic ash and/or loess and/or mixed silty alluvium over bedrock derived from volcanic rock and/or basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Component: Minidoka, stony surface (25%)

The Minidoka, stony surface component makes up 25 percent of the map unit. Slopes are 0 to 8 percent. The parent material consists of silty alluvium and/or loess and/or lacustrine deposits. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 107 - Minveno-Minidoka silt loams, 0 to 8 percent slopes, stony

Component: Minidoka, stony surface (25%)

inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 28 percent. There are no saline horizons within 30 inches of the soil surface.

Map unit: 117 - Power-Chardoton complex, 0 to 4 percent slopes

Component: Power (45%)

The Power component makes up 45 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Component: Chardoton (35%)

The Chardoton component makes up 35 percent of the map unit. Slopes are 0 to 4 percent. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer, duripan, is 40 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 33 percent. There are no saline horizons within 30 inches of the soil surface.

Map unit: 118 - Power-Jenness complex, 0 to 2 percent slopes

Component: Power (50%)

The Power component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. The parent material consists of mixed alluvium and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY001ID Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Component: Jenness (30%)

The Jenness component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. The parent material consists of alluvium derived from igneous rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY015ID Loamy Bottom 8-14 Artrr/leci4 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3s. This soil does not meet hydric criteria.

Map unit: 119 - Power-Purdam silt loams, 0 to 1 percent slopes

Component: Power (50%)

The Power component makes up 50 percent of the map unit. Slopes are 0 to 1 percent. The parent material consists of mixed alluvium

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 119 - Power-Purdam silt loams, 0 to 1 percent slopes

Component: Power (50%)

and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Component: Purdam (40%)

The Purdam component makes up 40 percent of the map unit. Slopes are 0 to 1 percent. The parent material consists of mixed alluvium and/or lacustrine deposits and/or loess. Depth to a root restrictive layer, duripan, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 23 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Map unit: 157 - Trevino-Garbutt-Strike complex, 2 to 8 percent slopes

Component: Trevino, very stony surface (40%)

The Trevino, very stony surface component makes up 40 percent of the map unit. Slopes are 2 to 8 percent. The parent material consists of mixed alluvium and/or loess over bedrock derived from basalt. Depth to a root restrictive layer, bedrock, lithic, is 8 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R011XY0011D Loamy 8-12 - Provisional ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Garbutt (20%)

The Garbutt component makes up 20 percent of the map unit. Slopes are 2 to 8 percent. The parent material consists of silty alluvium and/or lacustrine deposits and/or loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY0101D Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 9 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Component: Strike (20%)

The Strike component makes up 20 percent of the map unit. Slopes are 2 to 8 percent. The parent material consists of mixed alluvium and loess. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R011XY0101D Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 9 within 30 inches of the soil surface.

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 165 - Typic Torriorthents-Rubble land complex, 20 to 70 percent slopes

Component: Typic Torriorthents, stony surface (60%)

The Typic Torriorthents, stony surface component makes up 60 percent of the map unit. Slopes are 20 to 70 percent. The parent material consists of mixed alluvium and/or lacustrine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Rubble land (20%)

Generated brief soil descriptions are created for major soil components. The Rubble land is a miscellaneous area.

Map unit: 4001 - Chattin-Slickspots complex, 0 to 4 percent slopes

Component: Chattin (65%)

The Chattin component makes up 65 percent of the map unit. Slopes are 0 to 4 percent. This component is on lava plains, shield volcanoes, lava troughs, lava flows. The parent material consists of silty alluvium over loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 30 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 4 within 30 inches of the soil surface.

Component: Slickspots (20%)

Generated brief soil descriptions are created for major soil components. The Slickspots is a miscellaneous area.

Map unit: 4002 - Tadpole silt loam, 0 to 2 percent slopes

Component: Tadpole (85%)

The Tadpole component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on shield volcanoes, lava troughs. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 25 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

Map unit: 4004 - Tadpole-Corder complex, 0 to 2 percent slopes

Component: Tadpole, saline (50%)

The Tadpole, saline component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on shield volcanoes, lava troughs, lava plains, lava flows. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 4004 - Tadpole-Corder complex, 0 to 2 percent slopes

Component: Tadpole, saline (50%)

capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.

Component: Corder (40%)

The Corder component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on lava plains, shield volcanoes, plug domes, lava flows. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 12 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 5 within 30 inches of the soil surface.

Map unit: 4005 - Corder-Tadpole complex, 2 to 8 percent slopes

Component: Corder (65%)

The Corder component makes up 65 percent of the map unit. Slopes are 2 to 8 percent. This component is on shield volcanoes, plug domes, volcanic pressure ridges on lava flows. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 12 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 5 within 30 inches of the soil surface.

Component: Tadpole, saline (20%)

The Tadpole, saline component makes up 20 percent of the map unit. Slopes are 2 to 8 percent. This component is on shield volcanoes, lava flows, plug domes, volcanic pressure ridges. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.

Map unit: 4006 - Corder-Tadpole complex, 4 to 25 percent slopes

Component: Corder, very stony surface (60%)

The Corder, very stony surface component makes up 60 percent of the map unit. Slopes are 4 to 25 percent. This component is on shield volcanoes, volcanic pressure ridges on lava flows, tumuli on lava flows, plug domes. The parent material consists of loess and/or weathered volcanic ash and/or colluvium derived from basalt over basalt. Depth to a root restrictive layer, duripan, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 12 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 5 within 30 inches of the soil surface.

# Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 4006 - Corder-Tadpole complex, 4 to 25 percent slopes

Component: Tadpole, saline (25%)

The Tadpole, saline component makes up 25 percent of the map unit. Slopes are 4 to 20 percent. This component is on shield volcanoes, plug domes, volcanic pressure ridges on lava flows. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land capability classification is 6c. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.

Map unit: 4007 - Tadpole-Strike complex, 0 to 2 percent slopes

Component: Tadpole, saline (65%)

The Tadpole, saline component makes up 65 percent of the map unit. Slopes are 0 to 2 percent. This component is on shield volcanoes, lava troughs. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.

Component: Strike (20%)

The Strike component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on shield volcanoes, lava troughs. The parent material consists of loess and/or coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 6 within 30 inches of the soil surface.

Map unit: 4008 - Strike-Slickspots-Tadpole complex, 0 to 4 percent slopes

Component: Strike (60%)

The Strike component makes up 60 percent of the map unit. Slopes are 0 to 4 percent. This component is on shield volcanoes, lava troughs. The parent material consists of loess and/or coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY010ID Calcareous Loam 7-10 Atco-pide4/achy-acth7 ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 6 within 30 inches of the soil surface.

Component: Slickspots (15%)

Generated brief soil descriptions are created for major soil components. The Slickspots is a miscellaneous area.



## Map Unit Description

Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties

Map unit: 4008 - Strike-Slickspots-Tadpole complex, 0 to 4 percent slopes

Component: Tadpole, saline (15%)

The Tadpole, saline component makes up 15 percent of the map unit. Slopes are 0 to 4 percent. This component is on shield volcanoes, lava troughs. The parent material consists of loess and/or weathered volcanic ash over coarse-loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R011XY009ID Silty 7-10 Krla2/achy ecological site. Nonirrigated land capability classification is 6c. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 10 within 30 inches of the soil surface.

Map unit: 9907 - Playas, 0 to 1 percent slopes

Component: Playas (95%)

Generated brief soil descriptions are created for major soil components. The Playas is a miscellaneous area.

Map unit: 9908 - Badland, 1 to 8 percent slopes

Component: Badland (85%)

Generated brief soil descriptions are created for major soil components. The Badland is a miscellaneous area.

## Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

**Significant Soil Types Identified within the ROI**

**Significant<sup>a</sup> Soils and their Erodibility Factors within the ROI and Proposed Project Area**

<b>Map Unit Name</b>	<b>Slope (%)</b>	<b>Wind Erodibility Group (WEG)</b>	<b>Wind Erodibility Index (WEI)</b>	<b>Acres within the ROI</b>	<b>Percent of the ROI</b>	<b>Acres within the proposed project area</b>	<b>Percent of the proposed project area</b>
Colthorp-Minveno silt loams, stony	0 to 8	6	48	12,085	6	7,382	26
Colthorp stony silt loam, very stony	0 to 8	6	48	9,085	4	6,095	21
Power-Jenness complex	0 to 2	6	48	4,455	2	3,003	11
Chilcote-Power complex	0 to 8	5	56	2,749	1	2,604	9
Bahem-Minidoka-Trevino complex	0 to 4	4L	86	4,888	2	2,271	8
Power-Chardoton complex	0 to 4	6	48	1,948	1	1,945	7
Lankbush-Jenness association	0 to 4	3	86	2,658	1	1,355	5
Chilcote silt loam	0 to 4	5	56	3,016	1	919	3
Colthorp-Kunaton complex	0 to 8	6	48	2,937	1	722	3
Tadpole-Corder complex	0 to 2	5	56	28,438	14	712	3

<b>Map Unit Name</b>	<b>Slope (%)</b>	<b>Wind Erodibility Group (WEG)</b>	<b>Wind Erodibility Index (WEI)</b>	<b>Acres within the ROI</b>	<b>Percent of the ROI</b>	<b>Acres within the proposed project area</b>	<b>Percent of the proposed project area</b>
Power-Purdam silt loams	0 to 1	6	48	639	0	639	2
Trevino-Garbutt-Strike complex	2 to 8	6	48	2,151	1	503	2
Tadpole silt loam	0 to 2	5	56	2,787	1	62	0
Corder-Tadpole complex	2 to 8	5	56	7,937	4	25	0
Chilcote-Catchell-Chardoton complex	0 to 4	5	56	28,693	14	0	0
Catchell-Chilcote-Banbury complex	1 to 12	5	56	15,702	7	0	0
Elfkin-Dolman-Minveno complex	1 to 8	5	56	13,215	6	0	0
Tadpole-Purdam-Trevino complex, 0 to 5 percent slopes	0 to 5	5	56	10,761	5	0	0
Elfkin-Chilcote-Power complex	0 to 4	5	56	7,634	4	0	0
Chilcote-Purdam-Bowns complex	0 to 8	5	56	5,038	2	0	0

<b>Map Unit Name</b>	<b>Slope (%)</b>	<b>Wind Erodibility Group (WEG)</b>	<b>Wind Erodibility Index (WEI)</b>	<b>Acres within the ROI</b>	<b>Percent of the ROI</b>	<b>Acres within the proposed project area</b>	<b>Percent of the proposed project area</b>
Chardoton-Power complex	0 to 2	5	56	4,520	2	0	0
Chilcott-Chardoton complex	0 to 4	5	56	3,940	2	0	0
Power-Purdam complex	0 to 2	5	56	3,794	2	0	0
Dolman-Minveno-Trevino complex	4 to 15	5	56	3,456	2	0	0
Tadpole-Strike complex	0 to 2	5	56	3,377	2	0	0
Corder-Tadpole complex	4 to 25	6	48	2,529	1	0	0
Dolman-Minveno-Scism complex	0 to 8	5	56	2,486	1	0	0
Garbutt-Strike-Trevino complex	2 to 8	5	56	2,344	1	0	0
Purdam-McPan-Bowns complex	1 to 8	5	56	2,292	1	0	0
Minveno-Minidoka silt loams, stony	0 to 8	5	56	1,352	1	0	0

<b>Map Unit Name</b>	<b>Slope (%)</b>	<b>Wind Erodibility Group (WEG)</b>	<b>Wind Erodibility Index (WEI)</b>	<b>Acres within the ROI</b>	<b>Percent of the ROI</b>	<b>Acres within the proposed project area</b>	<b>Percent of the proposed project area</b>
Chardoton complex, 0 to 1 percent slopes	0 to 1	5	56	1,153	1	0	0
Other soils (individually comprise < 1 percent of the ROI)	N/A	N/A	N/A	12,312	6	184	1
Undefined soils	N/A	N/A	N/A	137	0	12	0
<b>TOTAL</b>				<b>210,506</b>	<b>100</b>	<b>28,433</b>	<b>100</b>

<sup>a</sup> Soils that individually comprise at least 1 percent of the total ROI.

**Summary of RCA Raptor Breeding Territory Occupancy and Breeding Productivity**



## Summary of NCA Raptor Breeding territory Occupancy and Breeding Productivity

Prepared by the Bureau of Land Management

This document provides summary information on the current breeding territory occupancy and breeding productivity for raptor species in the NCA including golden eagle, prairie falcon, ferruginous hawk, and burrowing owl. As stated in the referenced summary reports, this information is preliminary in nature, still undergoing final revision and is subject to revision, and are provided to meet the need for timely best available science and intended for discussion purposes only. Monitoring and research efforts were either funded by the Bureau of Land Management or jointly funded between the BLM and Idaho Army National Guard.

### **Golden Eagle**

Summary information from 2021 progress report for Golden Eagles in the Morley Nelson Snake River Birds of Prey National Conservation Area and Surrounding Study Areas: Population Monitoring and Management of Emerging Threats (Heath et al. 2021).

In 2021, 37 historical territories were surveyed within the NCA boundary. Golden Eagle territory occupancy across remained low at 55% compared to historical occupancy patterns, and productivity in the NCA increased from 2020 but remained 5% lower than the long-term average. This is the same number of occupied territories as in 2020, though it remains just one more occupied territory than in 2018 (20), which was the lowest number of occupied territories recorded within the NCA since the 1970s. Notably, all occupied territories attempted to breed in 2021.

The 21 breeding pairs in the NCA produced a total of 20 young that were successfully raised to fledging age. Productivity has been variable over the duration of the NCA's long-term monitoring effort. The number of young produced in 2021 was higher than in 2020 but remained 5% lower than the long-term average.

### **Prairie Falcon**

Executive Summary from 2021 progress report for NCA/OCTC Raptor Inventory/Survey Projects (Alsup et al. 2021).

During the 2019-2021 breeding seasons, surveys for canyon-nesting raptors were conducted within the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA). Surveys were modeled after historical surveys conducted in the late 1970's, mid-1990's and early 2000's. From 1976 through 2002 most surveys were conducted along the entire length of the Snake River Canyon within the NCA. However, by 2003, resources were no longer available for full-canyon surveys, so stratified random sampling was developed and implemented to survey 10, 5-km stretches of the Snake River Canyon within the NCA. We used this approach in 2019 and 2020. In 2021, the first full-canyon survey was conducting since 2002. This report focuses on results from the 2021 full-canyon survey but includes comparisons to recent sub-sample survey efforts conducted in 2019 and 2020.

During 2021, a full-canyon survey for raptors was undertaken in 32 5-km stretches within the Snake River Canyon in the NCA, with primary focus on prairie falcons (*Falco mexicanus*) because of the rich

historical data sets for this species. Preliminary analysis indicated that 256 prairie falcon pairs occupied nesting territories in these stretches in 2021. Prior full-canyon surveys during 1976 – 2002 suggest that during that time period there were 159 - 217 (mean  $\pm$  SD = 190.9  $\pm$  16.9) prairie falcon nesting pairs in these same 32 5-km stretches (USGS unpublished data). Thus, there is evidence that breeding season prairie falcon abundance has increased in this time span within the NCA. However, despite these apparent increases in abundance, nesting success in 2021 was below the long-term average ( $\pm$ SD) of 63  $\pm$  14%, with 56% of monitored territories (n = 50) producing young that reached 80% of fledging age in 2021.

Nesting by eight other species of raptor was also documented in 2021. Of particular note, there were peregrine falcon (*Falco peregrinus*) nesting territories observed again in 2021 after the first documentation in more than 70 years during 2019. Nesting by two BLM sensitive species, ferruginous hawks (*Buteo regalis*) and golden eagles (*Aquila chrysaetos*), were also documented in the NCA canyon surveys in 2021.

### **Ferruginous Hawk**

Summary information from 2022 final performance report for Long-term Ferruginous Hawk Monitoring Program (NCA) (Alsup 2022).

In 2019, 87 historical territories were surveyed; 38 territories were determined to be occupied. Nesting success and productivity was documented at 35 of 38 occupied territories monitored. 27 of 35 territories were successful (77.1%) in 2019, producing 84 young. Productivity ranged from 1-5 young. Average productivity was 3.11 young per successful attempt, or 2.40 young per occupied territory.

In 2020, 84 historical territories were surveyed: 38 territories were determined to be occupied. Nesting success and productivity was documented at 36 of 38 occupied territories monitored. 27 of 36 territories were successful (75.0%) in 2020, producing 94 young. Productivity again ranged from 1-5 young. Average productivity was 3.48 young per successful attempt, or 2.61 young per occupied territory.

The artificial ferruginous hawk nesting platform located within the ROI is the “Cow Pasture” territory. This territory has been occupied each breeding season from 2017-2021.

### **Burrowing Owl**

Project summary from 2021 progress report for Point-count Surveys and Nest Monitoring for Burrowing Owls in the Morley Nelson Snake River Birds of Prey National Conservation Area (Belthoff et al. 2021).

The project objective was to collect information about occupancy, distribution, ecology, and reproductive success of burrowing owls (*Athene cuniculara*) in the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA), located in southwestern Idaho. Systematic surveys for the NCA owl population were conducted in 2017 (reported previously) and again in 2021 (reported here). During 2021, 21 roadside point-count survey routes located in 21 different townships were conducted within the NCA along the same routes that were established in 2017. Each route included at least 10 point-count locations separated by approximately 0.8 km (0.5 mi). Routes were surveyed three times each for burrowing owls using a standardized listening/call broadcast protocol. To collect information on

reproductive success, breeding pairs of owls at 33 nest sites were monitored and a capture/banding protocol was used to record the number of nestlings reaching 3 – 4 wk. of age to estimate productivity.

In 2021, burrowing owl detections occurred along 20 of 21 (95.2%) routes and at 107 of 212 (50.5%) point-count locations. The odds of burrowing owl occurrence increased with increasing amounts of sagebrush cover within 400 m, although generally owls were making use of areas near rather than within stands of sagebrush. Owls achieved breeding success at 14 (42.4%) of 33 nests monitored in 2021, and productivity averaged  $1.7 \pm 2.6$  nestlings per nest (range: 0 – 7, n = 33).

In comparison to 2017 survey results, owls occurred along more survey routes in 2021 (n = 20 vs. 18) and at a greater number of individual point-count locations (n = 107 vs. 80); and, there were many more point-count locations colonized between 2017 and 2021 (n = 52) compared with point-count locations from which owls disappeared (n = 25).

These results indicate that burrowing owls are widespread in the NCA and there have been no apparent reductions in numbers or spatial distribution between 2017 and 2021. However, nest success and productivity were low in both 2017 and especially in 2021. Low productivity combined with future decreases in abundance obviously would be concerning for persistence of local owl populations and perhaps require further investigation to uncover causes of poor reproductive success in owls in the NCA.

#### **References:**

Alsup, S., J. Belthoff, and T. Katzner 2021. Annual Summary Report for: NCA/OCTC Raptor Inventory/Survey Projects. Raptor Research Center, Boise State University, Boise, ID.

Alsup, S. 2022. Final Performance Report: Long-term Ferruginous Hawk Monitoring Program. Birds of Prey NCA Partnership, Boise, ID.

Belthoff, J., B. Clark, A. Hancock, A. Johnson. 2021. Raptor Research Center, Boise State University, Boise, ID.

Heath, J.A., C. Davis, D. Delparte, E. Gregory. 2021. Golden Eagles in the Morley Nelson Snake River Birds of Prey National Conservation Area and Surrounding Study Areas: Population Monitoring and Management of Emerging Threats. Raptor Research Center, Boise State University, Boise, ID. Department of Geosciences, Idaho State University, Pocatello, ID.



- 1 **Appendix I**
- 2 **State and Orchard Combat Training Center Noise Reports**

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DEPARTMENT OF THE ARMY  
US ARMY PUBLIC HEALTH CENTER  
BUILDING 5158  
8252 BLACKHAWK ROAD  
ABERDEEN PROVING GROUND MARYLAND 21010-5403

MCHB-PH-WMG

MEMORANDUM FOR Idaho Army National Guard, Conservation Branch  
(NGID/Mr. Charles Baun), 4715 S. Byrd Street, Boise ID 83705-8095

SUBJECT: Environmental Noise Consultation No. S.0058234d-18, Noise Contours for  
Proposed Military Operations at Orchard Combat Training Center, Idaho, 2 May 2018

1. Subject document is enclosed.
2. The U.S. Army Public Health Center (APHC) strives to provide high quality products and services in a timely manner. We would appreciate a few moments of your time to tell us how we did. Please visit the following link:  
<https://usaphcapps.amedd.army.mil/Survey/se.ashx?s=25113745052C38DC>. To help ensure we evaluate the proper project:
  - a. For Question 1 "Directorate/Division" please indicate:
    - (1) Directorate: Environmental Health Sciences and Engineering
    - (2) Division: Environmental Health Engineering
  - b. For Question 2 "Type of product or service received," please indicate:  
Technical or Surveillance Report
3. Our points of contact for this consultation are Ms. Kristy Broska, Environmental Protection Specialist or Ms. Catherine Stewart, Branch Chief, Environmental Noise, APHC, commercial 410-436-3829 or DSN 584-3829, or e-mail:  
[kristy.a.broska.civ@mail.mil](mailto:kristy.a.broska.civ@mail.mil) or [catherine.m.stewart20.civ@mail.mil](mailto:catherine.m.stewart20.civ@mail.mil).

FOR THE DIRECTOR:

Encl

ALICK E. SMITH, P.E., R.S.  
LTC, MS  
Director, Environmental Health Sciences  
and Engineering



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## **U.S. ARMY PUBLIC HEALTH CENTER**

8252 Blackhawk Road, Aberdeen Proving Ground, Maryland 21010-5403

**Environmental Noise Consultation No. S.0058234d-18, July 2018  
Environmental Health Sciences and Engineering**

**Noise Contours for Proposed Military Operations at  
Orchard Combat Training Center, Idaho, 2 May 2018**

**Prepared by Ms. Kristy Broska, Environmental Noise Branch**

**Distribution authorized to U.S. Government Agencies only; protection of  
privileged information evaluating another command: July 2018. Requests  
for this document must be referred to Idaho Army National Guard,  
Conservation Branch (NGID), 4715 S. Byrd Street, Boise ID 83705-8095.**

**General Medical: 500A, Public Health Surveys**



**EXECUTIVE SUMMARY  
ENVIRONMENTAL NOISE CONSULTATION  
NO. S.0058234d-18  
NOISE CONTOURS FOR  
PROPOSED MILITARY OPERATIONS AT  
ORCHARD COMBAT TRAINING CENTER, IDAHO  
2 MAY 2018**

**1. PURPOSE**

---

The U.S. Army Public Health Center completed this consultation to provide noise contours for the proposed military operations at the Orchard Combat Training Center. The Idaho Army National Guard proposes upgrading Range 10 to a Digital Air-Ground Integrated Range and creating the Simco East Maneuver Area.

**2. CONCLUSIONS**

---

The Noise Zones for the baseline and projected demolition and large caliber activity are compatible with the surrounding land use. Under unfavorable weather, the activity may be audible in the homes in the NW Harper Road and S Cinder Butte Road area. However, the predicted peak noise levels indicate a low risk of complaints.

Due to the remote location of the Simco East area, the risk of complaints from the company-on-company exercises is low. The closest noise-sensitive land use is approximately 800 meters from the boundary.

**3. RECOMMENDATIONS**

---

Include the information from this consultation in the environmental analysis documentation for the proposed actions.

Provide public notification of upcoming training events in the Range 10 area.

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**ENVIRONMENTAL NOISE CONSULTATION  
NO. S.0058234d-18  
NOISE CONTOURS FOR  
PROPOSED MILITARY OPERATIONS AT  
ORCHARD COMBAT TRAINING CENTER, IDAHO  
2 MAY 2018**

**1. PURPOSE**

---

The U.S. Army Public Health Center completed this consultation to provide noise contours for the proposed military operations at the Orchard Combat Training Center (OCTC). The Idaho Army National Guard (ARNG) proposes the following activities: upgrading Range 10 to a Digital Air-Ground Integrated Range (DAGIR) and creating the Simco East Maneuver Area (Figure 1).

**2. REFERENCES AND TERMS**

---

Appendix A contains a list of references used to prepare this consultation. The glossary provides definitions for acronyms, abbreviations, and terms.

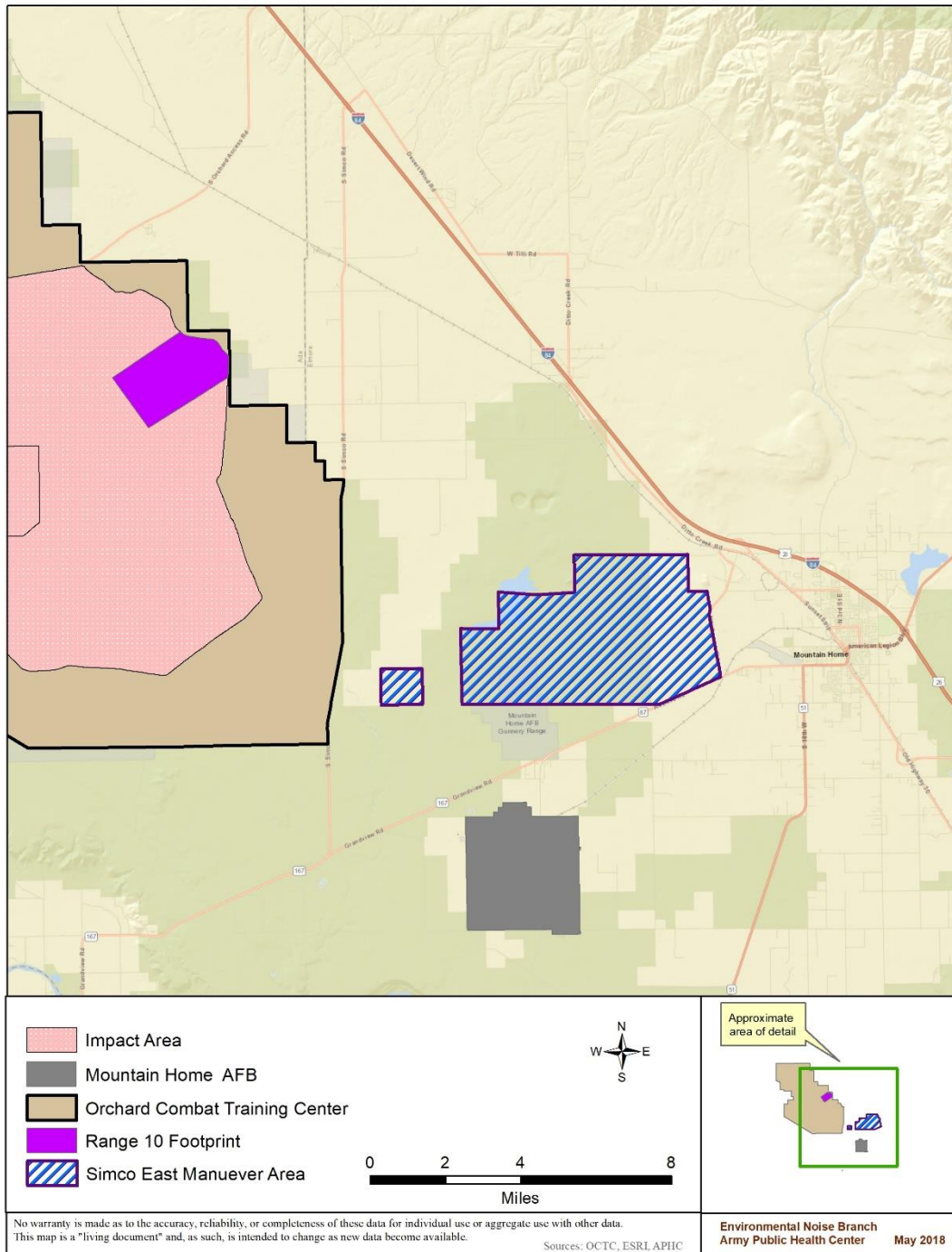
**3. NOISE ASSESSMENT GUIDELINES**

---

Noise Zones are defined in Army Regulation (AR) 200-1. Per AR 200-1, noise-sensitive land uses, such as housing, schools, and medical facilities are acceptable within the Land Use Planning Zone (LUPZ) and Noise Zone I, normally not recommended in Noise Zone II, and not compatible in Noise Zone III (Department of the Army 2007). Table 1 lists the land use planning guidelines.

Average noise levels may be the best tool for long-term land use planning, but they may not adequately assess the probability of community annoyance. As recommended in AR 200-1, this assessment includes supplemental metrics to identify where noise from demolition and large caliber activity may periodically reach levels high enough to generate complaints. In many instances, complaints are registered from areas where the Noise Zones indicate land use compatibility. Noise complaints from impulsive noise, often referred to as blast noise, typically are attributable to a specific event rather than annual average noise levels. Peak levels are useful for estimating the risk of receiving a noise complaint from blast noise, as they correlate with the receiver's perception of the sound. Table 2 lists the Army's complaint risk guidelines.

Use of trademarked name(s) does not imply endorsement by the U.S. Army but is intended only to assist in identification of a specific product.
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**Figure 1. OCTC Proposed Activity Location**

**Table 1. Land Use Planning Guidelines**

Noise Zone	Noise Limits			Noise-Sensitive Land Use
	Aviation ADNL (dB)	Impulsive CDNL (dB)	Small Arms Peak (dB)	
LUPZ	60 – 65	57 – 62	n/a	Generally Compatible
I	< 65	< 62	< 87	Generally Compatible
II	65 – 75	62 – 70	87 – 104	Generally Not Compatible
III	> 75	> 70	> 104	Not Compatible

Legend:

dB = decibel

ADNL = A-weighted Day-Night average sound Level

CDNL = C-weighted Day-Night average sound Level

Note:

Source: AR 200-1

**Table 2. Complaint Risk Guidelines**

Perceptibility <sup>a</sup>	dB Peak	Risk of Receiving Noise Complaints
May be Audible	< 115	Low
Noticeable, Distinct	115 - 130	Moderate
Very Loud, May Startle	> 130	High

Note:

<sup>a</sup> Perceptibility is subjective. The classifications are based on how a typical person might describe the event.

Peak sound levels relate to many of the unique characteristics of military blast noise and the difficulties encountered in assessing their impact, which include the following:

- People in an area experiencing peak levels between 115 and 130 dB may describe events as noticeable and distinct. From within this area, the installation has a moderate risk of receiving noise complaints. The magnitude of the complaint risk is dependent upon frequency of occurrence in addition to factors such as time of day activity occurs, propagation conditions under which activity takes place, and noise sensitivity of individuals in these areas.
- Peak sound pressure levels above 130 dB are generally objectionable and are often described as very loud and startling. These levels correlate with a high risk of noise complaints.
- If the operations that generate high peak sound pressure levels in the community are very infrequent, land use controls may not be warranted. However, prior public notification is important for mitigating complaint risk and is an important role of being good neighbors.
- Peak sound pressure levels directly correlate with airborne vibration, which is the dominant cause of structural response from military training. Peak sound pressure levels above 120 dB may rattle windows or loose ornaments (e.g., pictures on walls) and annoy occupants but will not cause structural damage.

- Peak levels can vary significantly and are highly dependent on weather conditions. Thus, the supplemental Peak noise levels included in this study have the following weather conditions applied:
  - Unfavorable Weather Conditions: PK15(met) is the Peak sound level, factoring in statistical variations caused by weather, that is likely to be exceeded only 15% of the time (i.e., 85% certainty that sound will be within this range). This “85% solution” gives the installation and the community a means to consider the areas that at times may be impacted by training noise. PK15(met) levels would occur under unfavorable weather conditions that enhance sound propagation.
  - Neutral Weather Conditions: PK50(met) is the Peak sound level that is likely to be exceeded 50% of the time (i.e., 50% certainty that sound will be within this range). These levels would be seen during neutral weather conditions. It should be noted that if activities take place under favorable weather conditions, such as the wind blowing away from the receiver, noise levels would be lower.

The unfavorable weather conditions PK15(met) metric is a good tool to indicate areas that may periodically be exposed to high noise levels. When land use planning programs such as real estate disclosure, a Joint Land Use Study or the Army Compatible Use Buffer are implemented, the PK15(met) complaint risk areas can and should be used to delineate areas of focus. However, since the complaint risk areas are based on single event levels and are not dependent on the number of events, planners should also consider frequency of operations when making land use decisions.

#### **4. NOISE CONTOURING PROCEDURES**

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The computer model used to create the noise contours for small arms (.50 caliber and below) ranges is the Small Arms Range Noise Assessment Model (SARNAM) (U.S. Army Engineer Research and Development Center (ERDC) 2015). SARNAM calculations are based on weapons noise source models, directivity, sound propagation, and mitigation effects. The calculation algorithms assume weather conditions for wind direction that favor sound propagation. Small caliber weapons noise is addressed utilizing peak levels and therefore has no assessment period.

The BNOISE2 modeling program calculates noise levels generated by firing large arms (20 millimeters (mm) and greater) and high-explosive charges (ERDC 2009). The sounds from large arms, demolitions, and other impulsive sounds generally create the largest complaint issues because the sound can travel far, is difficult to mitigate, and can be accompanied by vibration that may increase the public’s annoyance. Noise Zones for large caliber weapons are addressed using the CDNL with an assessment period of 104 days. This is the Army standard assessment period for all ARNG training installations and ranges per AR 200-1 guidance. Appendix B lists the operational data used to generate the Noise Zones.

## **5. NOISE ASSESSMENT**

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### **5.1 Demolition and Large Caliber Weapons – Baseline Activity**

Noise Zones for the baseline activity are shown in Figure 2. The LUPZ extends up to 2,200 meters to the east, south, and west. In the Range 10 area, Noise Zones III and II extend approximately 600 and 1,300 meters, respectively, beyond the eastern boundary. Zone II extends approximately 1,300 and 1,100 meters beyond the southern and western boundaries, respectively. Within Zones II and III, the land is primarily used for agricultural purposes and does not contain any noise-sensitive land uses.

Figure 3 illustrates the single event Peak sound level contours for the baseline activity. Under unfavorable weather, peak sound levels between 115 and 130 dB extend beyond the boundary approximately 3,000 meters to the east, south, and west. Peak sound levels above 130 dB extend beyond the boundary less than 1,100 meters. There are no noise-sensitive receivers in either area. Although the activity may be audible in the homes in the NW Harper Road and S Cinder Butte Road area, the predicted peak noise levels indicate a low risk of complaints.

### **5.2 Demolition and Large Caliber Weapons – Projected Activity**

Noise Zones for the projected activity are shown in Figure 4. Outside of the Range 10 area there is little to no change to the Noise Zones beyond the boundary. In the Range 10 area the additional DAGIR activity slightly increased the Noise Zones. Zones III and II extend approximately 950 and 1,800 meters, respectively, beyond the eastern boundary. The LUPZ extends up to 2,700 meters. Figure 5 shows the projected and baseline Noise Zones in the Range 10 area. The Noise Zones do not encompass any homes. Additionally, the DAGIR activity does not change the single event Peak sound level contours.

### **5.3 Proposed Heavy Maneuver Area**

#### **5.3.1 General**

The proposed heavy maneuver area, Simco East Maneuver Area, would be east of OCTC in newly leased land (Figure 6). The majority of the surrounding area is undeveloped but there are noise-sensitive receivers within 0.5 mile of the southeast corner of the maneuver area. The town of Mountain Home is approximately 2 miles east of the maneuver area.

The Simco East Maneuver Area would be used for company-on-company exercises using blank ammunition (.50 caliber and below), 40mm grenades (non-high explosive) and simulators. The exercises could take place anywhere within the 14,000 acres; however, most activity would occur in the center or western portion.

With the absence of specific firing point and target point locations, noise contours for the proposed activity in Simco East cannot be modeled. Therefore, the noise exposure was assessed using the predicted peak levels in Tables 3 through 7.



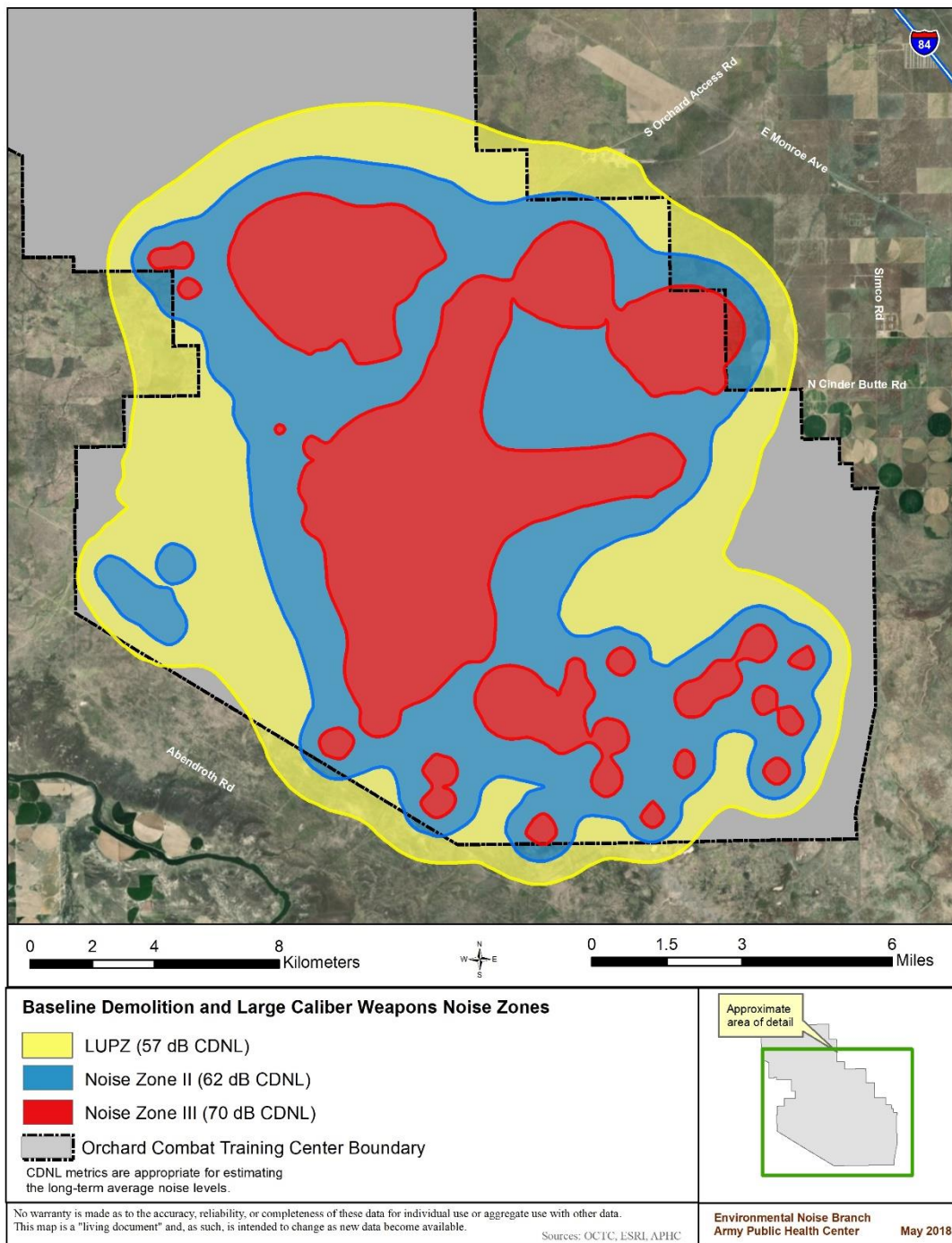
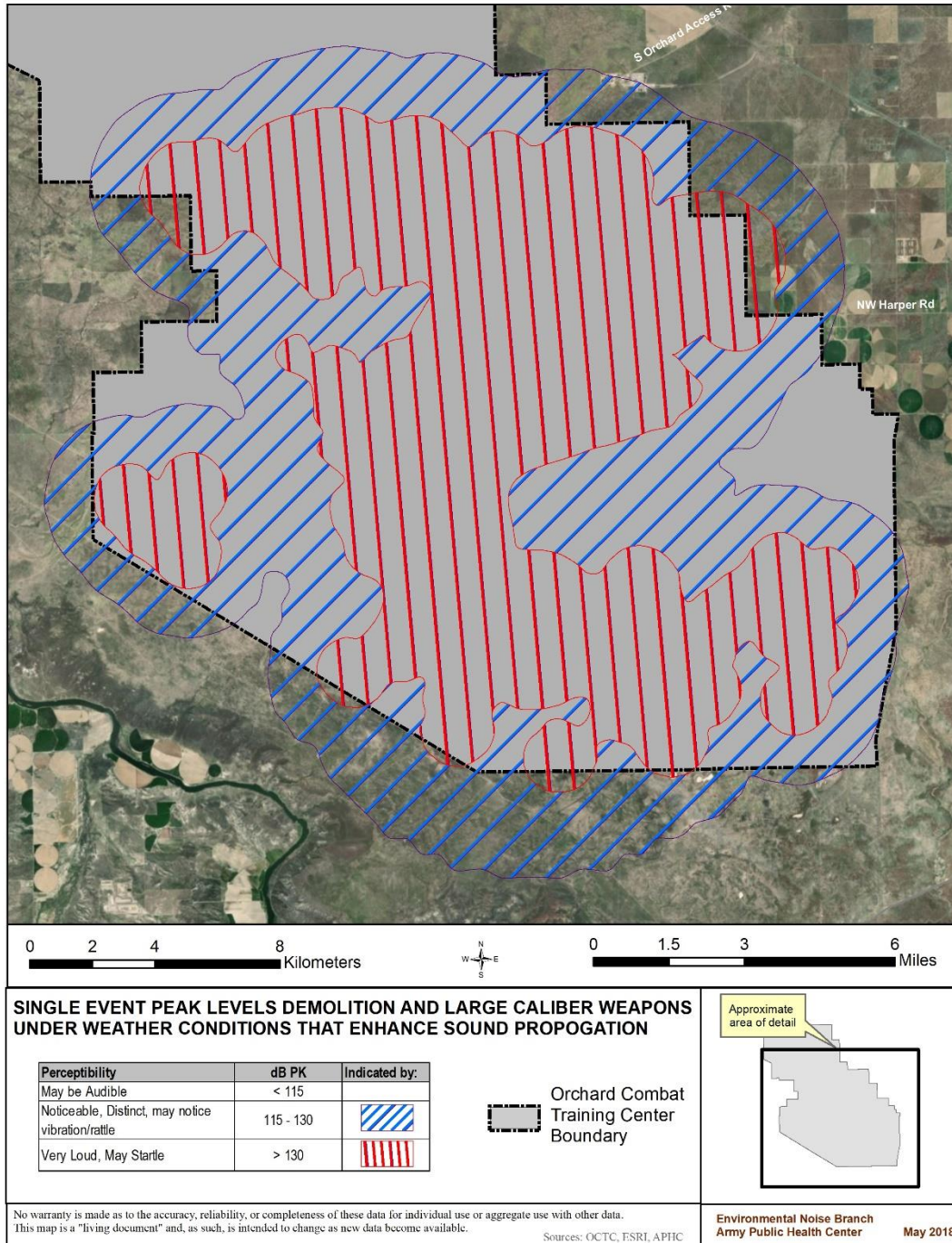


Figure 2. Baseline Demolition and Large Caliber Noise Zones



**Figure 3. Single Event Peak Noise Levels Under Weather Conditions that Enhance Sound Propagation**

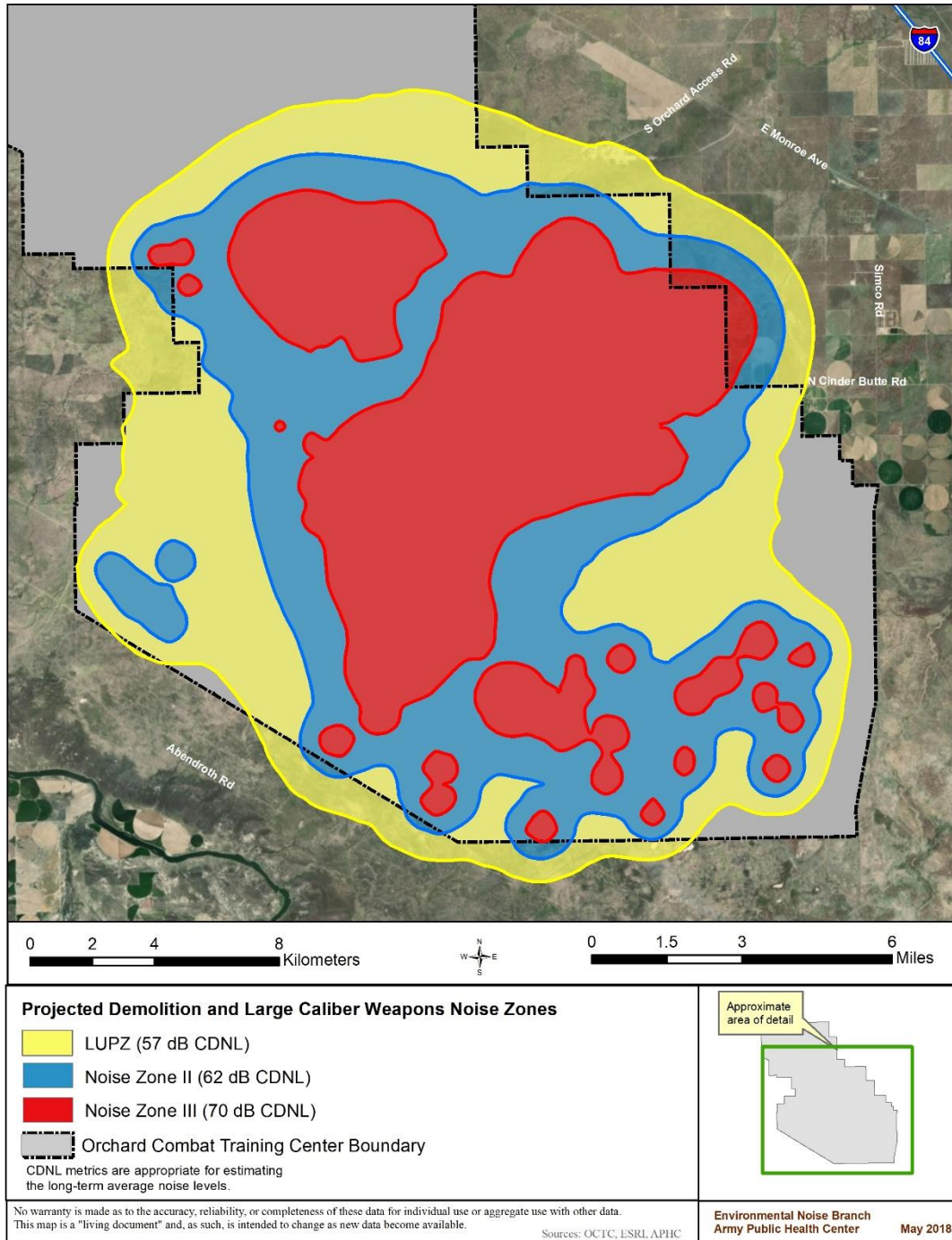
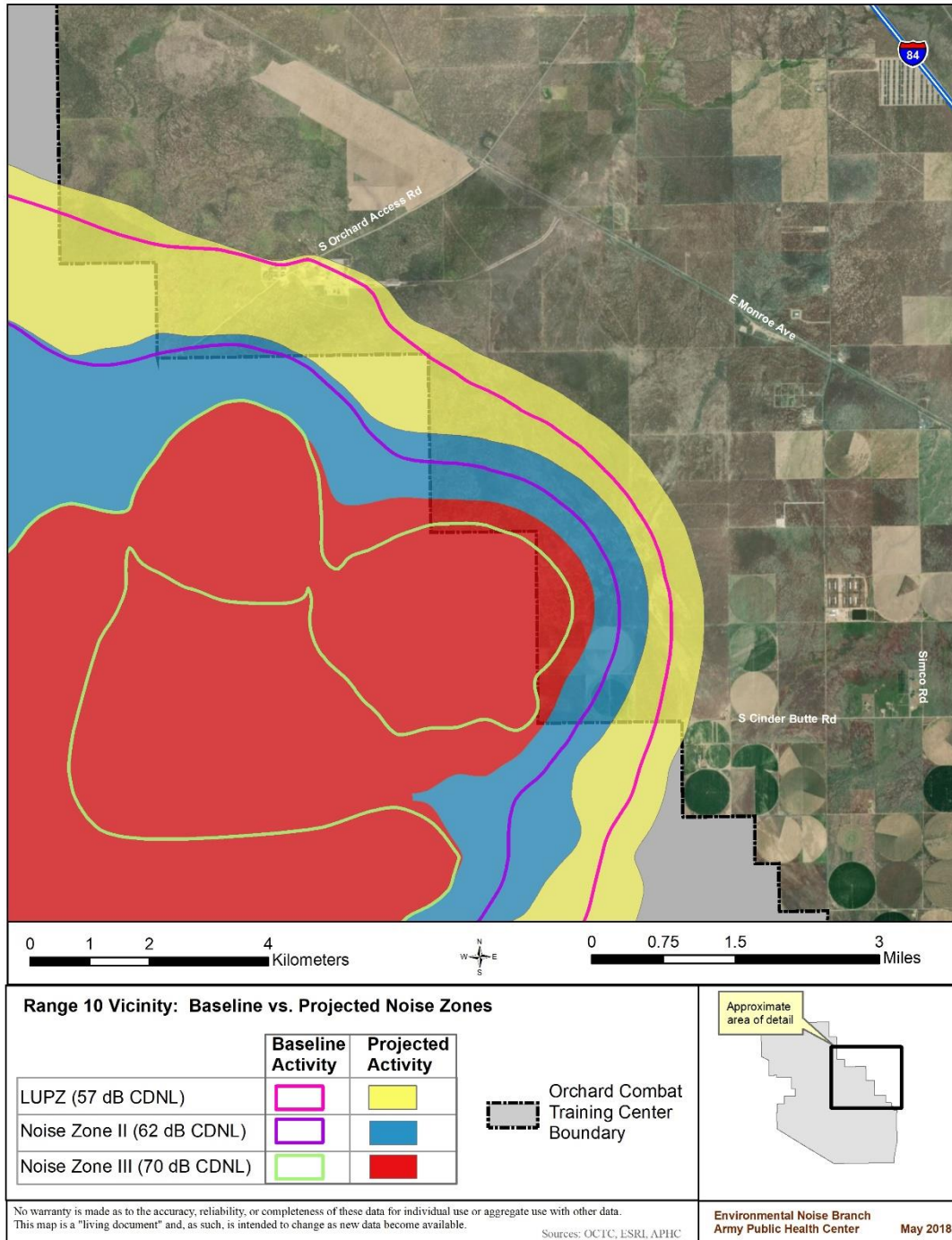


Figure 4. Projected Demolition and Large Caliber Noise Zones



**Figure 5. Range 10 Area: Baseline – Projected Noise Zones**

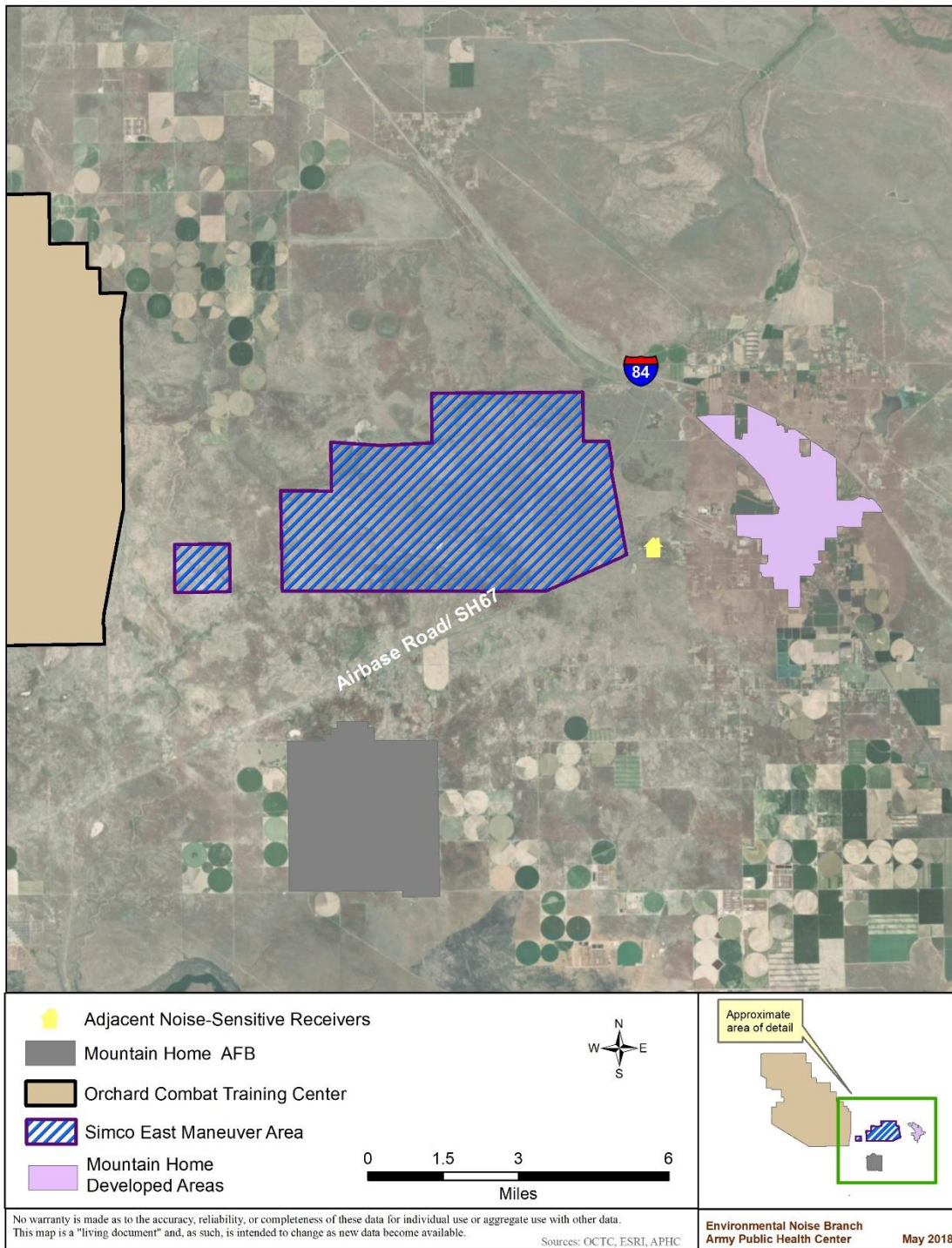


Figure 6. Simco East Maneuver Area Vicinity

**Table 3. Predicted Peak Levels for 5.56mm Blank<sup>a</sup> Round**

Distance (meters)	Predicted Level, dB Peak Azimuth		
	0 <sup>ob</sup>	90 <sup>o</sup>	180 <sup>o</sup>
100	87-97	86-96	87-97
200 <sup>c</sup>	80-90	79-89	80-90
400	69-79	68-78	69-79

Notes:

<sup>a</sup> Blank is defined as any round that contains propellant but no bullet.

<sup>b</sup> The 0<sup>o</sup> is directly in front of the weapon and the 180<sup>o</sup> azimuth is directly behind the weapon.

<sup>c</sup> Gray cells indicate distance where levels approach/exceed 87 dB Peak (Zone II).

**Table 4. Predicted Peak for 7.62mm Blank<sup>a</sup> Round**

Distance (meters)	Predicted Level, dB Peak Azimuth		
	0 <sup>ob</sup>	90 <sup>o</sup>	180 <sup>o</sup>
100	109-119	106-116	101-111
200	103-113	100-110	94-104
400	92-102	89-99	85-95
800 <sup>c</sup>	84-94	81-91	77-87

Notes:

<sup>a</sup> Blank is defined as any round that contains propellant but no bullet.

<sup>b</sup> The 0<sup>o</sup> is directly in front of the weapon and the 180<sup>o</sup> azimuth is directly behind the weapon.

<sup>c</sup> Gray cells indicate distance where levels approach/exceed 87 dB Peak (Zone II).

**Table 5. Predicted Peak for .50 Caliber Blank<sup>a</sup> Round**

Distance (meters)	Predicted Level, dB Peak Azimuth		
	0 <sup>ob</sup>	90 <sup>o</sup>	180 <sup>o</sup>
100	116-126	110-120	111-121
200	109-119	103-113	104-114
400	97-107	92-102	91-101
800	89-99	84-94	84-94
1200 <sup>c</sup>	84-94	79-89	84-94
1600	81-91	75-85	75-85

Notes:

<sup>a</sup> Blank is defined as any round that contains propellant but no bullet.

<sup>b</sup> The 0<sup>o</sup> is directly in front of the weapon and the 180<sup>o</sup> azimuth is directly behind the weapon.

<sup>c</sup> Gray cells indicate distance where levels approach/exceed 87 dB Peak (Zone II).

**Table 6. Predicted Peak Noise Levels for Typical Army Simulators**

Distance from Source (meters)	Neutral Weather Conditions PK50(met) (dB Peak)	Unfavorable Weather Conditions PK15(met) (dB Peak)
100	134	136
200	125	130
300	120	127
400	117	123
500	114	121
600	111	118
700	109	116
800	107	114

Note:

Gray cells indicate distance where levels approach 115 dB Peak (moderate complaint risk).

**Table 7. Audibility to the Side of the 40mm Grenade Launcher, Inert<sup>a</sup> Round**

Audibility	Distance from Grenade Launcher (meters <sup>b</sup> )	Noise Level (dB Peak)
May/may not be Audible	> 300 <sup>b</sup>	< 115
Noticeable, Distinct	65 - 300 <sup>b</sup>	115
Very Loud, May Startle	< 65 <sup>b</sup>	>130
Risk of hearing damage for unprotected ears	< 19 <sup>c</sup>	>140

Notes:

<sup>a</sup> Inert is defined as any round that does not make noise upon impact, such as smoke, illum, TP

<sup>b</sup> Calculated value

<sup>c</sup> Known value, hearing conservation criteria.

### 5.3.2 Small Arms Weapons

Tables 3 through 5 provide the noise levels for small arms weapons (.50 caliber and below).

In each column, the upper limit levels would occur under weather conditions that enhance sound propagation (unfavorable), such as the wind blowing toward the receiver. The lower limit levels occur under favorable weather conditions, such as the wind blowing away from the receiver. The azimuth angle can be defined as the direction of fire (i.e., 0 degrees is directly in front of the weapon and 180 degrees is directly behind the weapon).

Tables 3 through 5 convey that Zone II sound levels (87 dB Peak) would extend approximately 200 meters for the 5.56mm blank round and approximately 800 meters for the 7.62mm blank and .50 caliber blank rounds.

### 5.3.3 Simulator Training

Simulator noise levels vary depending on the type (i.e., artillery, ground burst, grenade, or improvised explosive device) but typically, the variation will be limited to a few decibels. Table 6

gives an approximation of anticipated noise levels under neutral and unfavorable weather conditions. The levels were generated using the BNOISE2 computer program, and then verified by comparing the levels with results from noise monitoring studies (U.S. Army Environmental Hygiene Agency (USAEHA) 1983, 1984, and 1989). Under neutral weather conditions, the risk of complaints will be low beyond 500 meters as the Peak level would not exceed 115 dB. Under unfavorable weather conditions, such as during a temperature inversion, or when there is a steady wind blowing in the direction of the receiver, the distance to a 115 dB Peak level increases to approximately 800 meters.

### 5.3.4 40mm Grenades

Tables 7 and 8 show the distances and predicted peak levels from the 40mm Grenade Launcher inert rounds. The noise levels listed in the tables are based on hearing conservation criteria (USAEHA 1989) and known measurements (USAEHA 1984). This data represents the best available scientific quantification for assessing the audibility of the launch noise from the 40mm grenade launcher.

**Table 8. Audibility to the Rear of the 40mm Grenade Launcher, Inert<sup>a</sup> Round**

Audibility	Distance from Grenade Launcher (meters)	Noise Level (dB Peak)
May/may not be Audible	> 110 <sup>b</sup>	< 115
Noticeable, Distinct	25 – 110 <sup>b</sup>	115
Very Loud, May Startle	< 25 <sup>b</sup>	>130
Risk of hearing damage for unprotected ears	< 7 <sup>c</sup>	>140

Notes:

<sup>a</sup> Inert is defined as any round that does not make noise upon impact, such as smoke, illum, TP

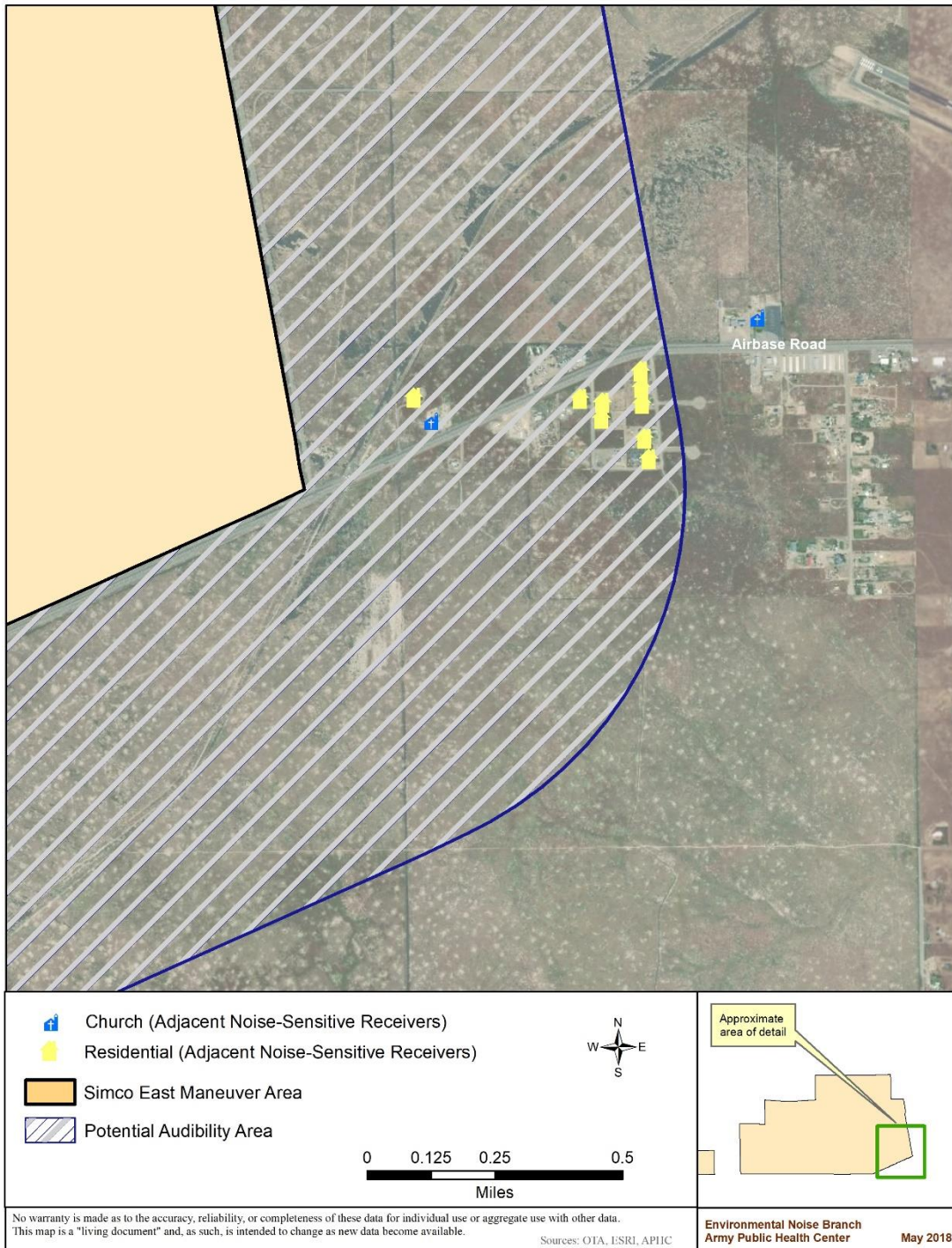
<sup>b</sup> Calculated value

<sup>c</sup> Known value, hearing conservation criteria.

### 5.3.5 Findings

Since the closest noise-sensitive land use is approximately 800 meters from the boundary, the risk of complaints from the company-on-company exercises is low. Although most activity would occur in the center or western portion of the maneuver area, since there are noise-sensitive receivers near the southeast (SE) corner, the potential audibility area (1,200 meters) of the loudest weapon (.50 caliber blank) is shown in Figure 7. As illustrated, if the .50 caliber is fired adjacent to the SE boundary, residents along Airbase Road and the Cornerstone Apostolic Church may hear the activity.





**Figure 7. Potential Audibility Area Adjacent to SE Corner of the Simco East Maneuver Area**

## **6. CONCLUSIONS**

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The Noise Zones for the baseline and projected demolition and large caliber activity are compatible with the surrounding land use. Under unfavorable weather, the activity may be audible in the homes in the NW Harper Road and S Cinder Butte Road area. However, the predicted peak noise levels indicate a low risk of complaints.

Due to the remote location of the Simco East area, the risk of complaints from the company-on-company exercises is low. The closest noise-sensitive land use is approximately 800 meters from the boundary.

## **7. RECOMMENDATIONS**

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Include the information from this consultation in the environmental analysis documentation for the proposed actions.

Provide public notification of upcoming training events in the Range 10 area.

KRISTY BROSKA  
Environmental Protection Specialist

APPROVED:

CATHERINE STEWART  
Branch Chief  
Environmental Noise

## **APPENDIX A**

### **REFERENCES**

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USAEHA. 1984. Environmental Noise Assessment No. 52-34-0442-84, Noise Measurement Study, Camp Bullis, Texas, 27 February – 2 March 1984.

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**APPENDIX B**  
**NOISE MODEL INPUTS**

The future large caliber and demolition CDNL Noise Zones are a combination of the baseline data from Table B-1 and the additional projected aerial gunnery rounds at the DAGIR/Range 10 listed in Table B-2.

**Table B-1. Demolition and Large Caliber Ammunition Expenditure (Baseline Activity)**

Facility/Airspace Subdivision	Nomenclature	Quantity Fired (Fiscal Year 17)	
		Daytime (0700 - 2200)	Nighttime (2200-0700)
R-3203A	2.75" Rocket, Inert	2277	402
	30mm Gun, Inert	10,980	1,938
Range 01	120mm Tank, Inert	978	173
	120mm Tank, Sabot, Inert	1,538	271
	2.75" Rocket, Inert	919	162
	25mm Gun, Inert	756	133
	30mm Gun, Inert	8,683	1,532
Range 02	120mm Tank, Inert	239	42
	120mm Tank, Sabot, Inert	257	45
Range 04	Demolition, C-4, 1.25 lb	3	0
Range 06	120mm Tank, Inert	199	35
	120mm Tank, Sabot, Inert	260	46
	25mm Gun, Inert	9,427	1,664
Range 10	120mm Tank, Inert	224	39
	120mm Tank, Sabot, Inert	357	63
	22mm Gun, Inert	255	45
	25mm Gun, Inert	14,726	2,599
Range 11	Demolition, C-4, 1.25 lb	42	0
Range 20	Demolition, C-4, 1.25 lb	173	0
Range 21	2.75" Rocket, Inert	17	3
	30mm Gun, Inert	646	114
Range 22	Demolition, Bangalore	25	0
	Demolition, C-4, 1.25 lb	1443	0
	Demolition, Cratering, 40 lb	31	0
	Demolition, Shaped, 15 lb	75	0
	Demolition, SLAM, 0.6 lb	33	0
	Mine, Claymore, M18A1	12	0
	Rocket Motor, 5", 46 lb	4	0

**Table B-1. Demolition and Large Caliber Ammunition Expenditure (Baseline Activity) (continued)**

Facility/Airspace Subdivision	Nomenclature	Quantity Fired (Fiscal Year 17)	
		Daytime (0700 - 2200)	Nighttime (2200-0700)
Range 26	25mm Gun, Inert	22,613	3,991
Range 28	2.75" Rocket, High Explosive	29	5
	2.75" Rocket, Inert	476	84
	30mm Gun, Inert	8,777	1,549
	AT-4 Rocket, High Explosive	159	28
	Hand Grenade, M67	270	0
Range 29	Hand Grenade, M67	860	0
Range 30	81mm Mortar, High Explosive	84	15
	120mm Mortar, High Explosive	304	54
	120mm Mortar, Inert	1,911	337
	155mm Howitzer, High Explosive	64	11
	155mm Howitzer, Inert	34	6
Training Area A-8	155mm Howitzer, High Explosive	163	29
	155mm Howitzer, Inert	119	21
Training Area C-2	155mm Howitzer, High Explosive	68	12
	155mm Howitzer, Inert	119	21
Training Area C-4	155mm Howitzer, High Explosive	796	140
	155mm Howitzer, Inert	284	50
Training Area D-2	155mm Howitzer, High Explosive	510	90
	155mm Howitzer, Inert	129	23
Training Area E-1	155mm Howitzer, High Explosive	969	171
	155mm Howitzer, Inert	294	52

**Table B-2. Future Large Caliber Ammunition Expenditure at DAGIR/Range 10**

Facility/Airspace Subdivision	Nomenclature	Projected Quantity Fired Based on Standards in Training Commission Estimates	
		Daytime (0700 - 2200)	Nighttime (2200 – 0700)
Range 10 / DAGIR	2.75" Rocket, Inert	15,850	3,962
	30mm Gun, Inert	44,544	11,136
	Hellfire Missile, Inert	749	187

## GLOSSARY

### Acronyms/Abbreviations

AR  
Army Regulation

ARNG  
Army National Guard

CDNL  
C-weighted Day-Night average sound Level

DAGIR  
Digital Air-Ground Integrated Range

dB  
Decibels

ERDC  
U.S. Army Engineer Research and Development Center

lb  
pound(s)

LUPZ  
Land Use Planning Zone

mm  
millimeter

OCTC  
Orchard Combat Training Center

SARNAM  
Small Arms Range Noise Assessment Model

USAEHA  
U.S. Army Environmental Hygiene Agency



## **Terms**

### **Average Sound Level**

The mean-squared sound exposure level of all events occurring in a stated time interval, plus 10 times the common logarithm of the quotient formed by the number of events in the time interval, divided by the duration of the time interval in seconds.

### **C-Weighted Sound Level**

A sound level weighting technique that is used to normalize the low, impulsive sounds to the range of human hearing. It is used when measuring low frequency sound such as those from large arms, demolitions, and sonic booms.

### **Day-Night Average Sound Level (DNL)**

The 24-hour average frequency-weighted sound level, in decibels, from midnight to midnight, obtained after addition of 10 decibels to sound levels in the night from midnight up to 7 a.m. and from 10 p.m. to midnight (0000 up to 0700 and 2200 up to 2400 hours).

### **Decibels (dB)**

A logarithmic sound pressure unit of measure.

### **Land Use Planning Zone (LUPZ)**

DNL noise contours represent an annual average that separates the Noise Zone II from the Noise Zone I.

### **Noise**

Any sound without value.

### **Noise Zone III**

The area around a noise source in which the CDNL is greater than 70 dB (demolition and large caliber weapons) or the dB Peak is greater than 104 (small caliber weapons).

### **Noise Zone II**

The area around a noise source in which the CDNL is 62-70 dB (demolition and large caliber weapons) or the dB Peak is 87-104 (small caliber weapons).

### **Noise Zone I**

Includes all areas around a noise source in which the CDNL is less than 62 dB (demolition and large caliber weapons) or the dB Peak is less than 87 (small caliber weapons). This area is usually suited for all types of land use activities.

### **Peak**

Peak is a single-event sound level without weighting.

**PK15(Met)**

Peak sound level, without frequency weighting and accounting for the statistical variation cause by weather, expected to be exceeded by 15% of all events that might occur. This metric cannot be measured on a sound level meter as it is a statistical probability generated by computer modeling. A PK15(met) level of greater than 130 dB has a high risk of complaints, 115-130 dB has a moderate risk of complaints, and below 115 dB has a low risk of complaints.

**PK50(Met)**

Similar to the PK15(met) except that it represents the peak noise level that is exceeded 50% of the time. This metric also accounts for weather but assumes conditions that are not favorable for noise propagation. This metric cannot be measured on a sound level meter, as it is a statistical probability generated by computer modeling.

- 1 **Appendix J**
- 2 **Expanded Description of Wildlife Species**

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## Appendix J. Expanded Description of Key Raptor and Wildlife Species and Associated Habitat

**Table 1. BLM Sensitive Wildlife Species with the Potential to Occur in the ROI**

Species (Type/Status)	Key Habitat Associations	Habitat Present	Species Present
<b><i>Mammals</i></b>			
Big Brown Bat ( <i>Eptesicus fuscus</i> ) (2/S)	Roosting; hibernation: Snags or living trees, cave and mine entrances; caves, mines, human structures.  Foraging: Juniper, sagebrush, particularly around clearings and lake edges.	No	Possible
Bighorn Sheep ( <i>Ovis canadensis spp.</i> ) (2/S)	Rugged desert canyonlands and mountains in sagebrush steppe/grassland habitat.	No	No
Canyon Bat (formerly Western Pipistrell) ( <i>Parastrellus hesperus</i> ) (2/S)	Roosting; Hibernation: rock crevices, caves, mines, and human structures; nonmigratory.  Foraging: Canyon areas near water.	No	Improbable
Kit Fox ( <i>Vulpes macrotis</i> ) (2/S)	Inhabits arid and semiarid regions encompassing desert scrub, chaparral, halophytic, and grassland communities.  Loose textured soils may be preferred for denning.	Yes	Possible
Little Brown Bat ( <i>Myotis lucifugus</i> ) (2/S)	Roosting; Hibernation: forested areas with snags; mines and caves.  Foraging: variety of areas near water where aquatic insects (important diet component).	No	Improbable
Long-eared Myotis ( <i>Myotis evotis</i> ) (2/S)	Roosting: forested areas in exfoliated bark and cavities but also in human structures, rock crevices, and mines.  Foraging: over water or among trees.	No	Improbable
Long-legged Myotis ( <i>Myotis volans</i> )	Roosting; Hibernation: forested areas in exfoliated bark and cavities, human	No	Improbable

Species (Type/Status)	Key Habitat Associations	Habitat Present	Species Present
(2/S)	structures, rock crevices, cracks in the ground, caves and mines. Foraging: variety of areas near open water.		
Pallid Bat ( <i>Antrozous pallidus</i> ) (2/S)	Roosting: rock crevices, mines, tree cavities, and vacant buildings. Foraging: visual and aural hunters of mostly ground dwelling arthropods.	Yes	Probable
Pygmy Rabbit ( <i>Brachylagus idahoensis</i> ) (S/2)	Throughout much of the Great Basin; relatively large areas of tall/dense sagebrush and deep soils. In Idaho, closely associated with large stands of sagebrush; prefers areas of tall, dense sagebrush cover with high percent woody cover.	No	No
Silver-haired Bat ( <i>Lasionycteris noctivagans</i> ) (2/S)	Roosting; Hibernation: forested areas in exfoliated bark and cavities; caves and mines. Foraging: variety of areas over open water, forest canopies, and shrubs.	Yes	Possible
Townsend's Big-eared Bat ( <i>Corynorhinus townsendii</i> ) (2/S)	Roosting; Hibernation: caves, abandoned mines, buildings, bridges, and hollow trees; caves and mine tunnels. Foraging: mesic and xeric shrublands, forest uplands, most needleleaf forests.	Yes	Possible
Western Small-footed Myotis ( <i>Myotis ciliolabrum</i> ) (2/S)	Roosting; Hibernation: rock crevices, under rocks, exfoliated bark, and buildings; caves and mines. Foraging: along cliffs and rocky slopes. Wide variety of habitats, it is most commonly associated with arid, rocky areas, such as canyons, cliffs, rock outcrops, and badlands, within a variety of habitats, such as montane forest, juniper woodlands, sagebrush steppe.	Yes	Yes

Species (Type/Status)	Key Habitat Associations	Habitat Present	Species Present
Yuma Myotis ( <i>Myotis yumanensis</i> ) (2/S)	Roosting: Crevices in cliffs, old buildings, mines, caves, bridges, and abandoned cliff swallow nests. Foraging: Closely associated with streams and other open water.	No	No
<b>Birds</b>			
Bald Eagle ( <i>Haliaeetus leucocephalus</i> ) (2/S)	Restricted to large rivers and water bodies near mixed-conifer forest, occasionally sagebrush foothills. Nest in oldest trees in the stand. Always associated with aquatic forage area. Winters along the Snake River in the NCA.	No	No
Black-throated Sparrow ( <i>Amphispiza bilineata</i> ) (2/S)	Open areas with scattered shrubs and trees including deserts and semidesert grasslands.	Yes	Possible
Brewer's Sparrow ( <i>Spizella breweri</i> ) (2/S)	Nest in canopies of sagebrush and occasionally other shrubs. Use a wide variety of shrub cover levels, but decline with increasing tree density.	Yes	Probable
Burrowing Owl ( <i>Athene cunicularia</i> ) (2/S)	Sagebrush steppe and grasslands, typically use natural burrows excavated by American badgers.	Yes	Yes
Ferruginous Hawk ( <i>Buteo regalis</i> ) (2/S)	Arid to semiarid regions, grasslands and agricultural areas.	Yes	Yes
Golden Eagle ( <i>Aquila chrysaetos</i> ) (2/S)	Open habitats in mountains and hill country, prairies, and other grasslands. Open sagebrush areas adjacent to nesting cliffs. Found on prairies, tundra, open wooded country, and barren areas, especially in hilly or mountainous areas. In Idaho, prefers open and semi-open areas in deserts and mountains.	Yes	Yes

<b>Species (Type/Status)</b>	<b>Key Habitat Associations</b>	<b>Habitat Present</b>	<b>Species Present</b>
Grasshopper Sparrow ( <i>Ammodramus savannarum</i> ) (2/S)	Sagebrush, sagebrush steppe, riparian areas.	Yes	Possible
Greater Sage-grouse ( <i>Centrocercus urophasianus</i> ) (2/S)	Sagebrush, sagebrush steppe, riparian areas.	No	No
Green-tailed Towhee ( <i>Pipilo chlorurus</i> ) (2/S)	Mixed-species shrub communities, including open sagebrush steppe, montane shrubland, and successional growth in disturbed coniferous forest.	No	No
Lewis' Woodpecker ( <i>Melanerpes lewis</i> ) (2/S)	Open woodland and forests, including riparian woodland.	No	No
Loggerhead Shrike ( <i>Lanius ludovicianus</i> ) (2/S)	Open country with scattered trees and shrubs, in savannas, desert scrub, and occasionally, in open juniper woodlands.	Yes	Possible
Long-billed Curlew ( <i>Numenius americanus</i> ) (2/S)	Open short-grass or mixed-prairie habitat with level to slightly rolling topography, and generally avoid areas with trees, high-density shrubs, and tall, dense grasses, and tall noxious weeds.	Yes	Yes
Northern Goshawk ( <i>Accipiter gentilis</i> ) (2/S)	Deciduous and coniferous forest, along edges and in open woodlands. In Idaho summer, nests in coniferous and aspen forest; winters in riparian and agricultural areas. Do not breed in the NCA; have been observed during fall and spring migration.	No	No
Olive-sided Flycatcher ( <i>Contopus cooperi</i> ) (2/S)	Mixed-conifer forest edges and openings caused by natural or anthropogenic disturbances, including small forest gaps resulting from tree death in old-growth forests, or along the edges of early successional forests.	No	No



<b>Species (Type/Status)</b>	<b>Key Habitat Associations</b>	<b>Habitat Present</b>	<b>Species Present</b>
Sage Sparrow ( <i>Amphispiza belli</i> ) (2/S)	Sagebrush obligate; nest on the ground or in shrubs using a wide range of shrub cover and height. They favor sagebrush shrublands, use woodland edges, but avoid dense woodlands.	Yes	Yes
Sage Thrasher ( <i>Oreoscoptes montanus</i> ) (2/S)	Sagebrush obligate that needs large continuous stands of sagebrush or sage steppe.	Yes	Probable
Short-eared Owl ( <i>Asio flammeus</i> ) (2/S)	Sagebrush steppe and grasslands.	Yes	Probable
Willow Flycatcher ( <i>Empidonax traillii</i> ) (2/S)	Found in thickets, scrubby and brushy areas, open second growth, swamps, and open woodlands. In Idaho, associated with mesic and xeric willow (riparian) habitats.	No	No
Yellow-billed Cuckoo ( <i>Coccyzus americanus</i> )	Large tracts of cottonwood and willow habitats with dense subcanopies; restricted to Snake River. No critical habitat in or near the NCA (50 CFR Part 17).	No	No
<b>Reptiles</b>			
Longnose Snake ( <i>Rhinocheilus lecontei</i> ) (2/S)	Found in desert lowland areas that have sandy or loose soils and numerous burrows.	Yes	Possible
Great Basin Black-collared Lizard ( <i>Crotaphytus bicinctores</i> ) (2/S)	Associated with low elevation arid habitats, with sparse vegetation and the presence of rocks and boulders.	Yes	Possible
Ground Snake ( <i>Sonora semiannulata</i> ) (2/S)	Desert habitats with loose or sandy soils.	Yes	Possible
<b>Amphibians</b>			
Northern Leopard Frog ( <i>Lithobates pipiens</i> ) (2/S)	Marshes and wet meadows from low valleys to mountain ridges.	No	No

Species (Type/Status)	Key Habitat Associations	Habitat Present	Species Present
Western/Boreal Toad ( <i>Anaxyrus boreas</i> ) (2/S)	Ephemeral pools and streams, all upland habitats.	No	No
Woodhouse's Toad ( <i>Anaxyrus woodhousii</i> ) (2/S)	Lower elevation habitats, sagebrush desert, woodlands, grasslands, farmlands.	No	No
<b><i>Fish</i></b>			
White Sturgeon ( <i>Acipenser transmontanus</i> ) (Snake River population above Hells Canyon Complex Only) (2/S)	Large, deeper pools of main river channels.	No	No
<b><i>Invertebrates</i></b>			
Bruneau Dunes Tiger Beetle ( <i>Cicindela waynei</i> )	Occurs in sparsely vegetated margins of sand dunes. Idaho endemic species restricted to two locations in northern Owyhee County.	No	No
Columbia Pebblesnail ( <i>Fluminicola fuscus</i> ) (2/S)	Small to large rivers, in swift current on stable gravel to boulder substrate in cold, unpolluted, highly oxygenated water.	No	No
Snake River Physa Snail ( <i>Haitia [Physa] natricina</i> ) (1/E)	Confined to the Snake River and distributed over 300 river miles (RM) from Ontario, Oregon, (RM 368) to just below Minidoka Dam, Idaho (RM 675). Found in swift current on sand-to-boulder substrate.	No	No
California Floater ( <i>Anodonta californiensis</i> ) (2/S)	Lakes and large streams at lower elevations in areas with soft substrates and relatively slow currents.	No	No
Shortface Lanx ( <i>Fisherola nuttali</i> )	River reaches with a swift current and highly oxygenated, often near rapids.	No	No

Species (Type/Status)	Key Habitat Associations	Habitat Present	Species Present
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Sources: BLM 214; Idaho Fish and Game 2021

<sup>a</sup> Type 1 = Species listed under the ESA as Endangered (E) or Threatened (T), Experimental Essential (XE) populations, and designated Critical Habitat (CH).

Type 2 = Idaho BLM Sensitive Species: Includes State Director-designated species (S) as well as USFWS Candidate species (C), USFWS Proposed species (P), USFWS Experimental Nonessential Populations (XN), and species delisted from ESA Threatened or Endangered status within the past 5 years (D).

Categories include species presence documented (Yes), species likely to occur based on preferred habitat and local species abundance and nearby (<5 miles) occurrences within 5 miles (Probable), species may occur based on preferred habitat and occurrences within 25 miles (Possible), species not likely to occur based on limited or lack of preferred habitat and occurrence more than 50 miles (Improbable), and species not present due to lack of habitat (No).

## Wildlife Special-Status Species

### Prairie Falcon

Prairie falcons are a migratory raptor species that breeds in the NCA, occupying the area from late January through July. They typically nest on cliffs, outcroppings, or pinnacles in cavities, ledges, or the nests of other raptors and ravens. Prairie falcons in the NCA overlap their annual breeding cycle with the seasonal activity of Piute ground squirrels, which are a critical food resource for breeding prairie falcons (USDOI BLM 1996, as cited in Warner 2014a). Prairie falcons return to the NCA in January as Piute ground squirrels begin to emerge from burrows after a six-month period of inactivity (seasonal *torpor*). Prairie falcons begin establishing nesting territories in late February through March, and peak egg laying corresponds with the emergence of juvenile ground squirrels, which increase the abundance of prey availability for falcons. Nestlings hatch the first of May with most young fledged by July (USDOI BLM 2008). On average, annual military training in the ROI begins in May and continues through August which overlaps with the nestling phase of prairie falcons or approximately 35 of their 70 day nesting period. Prairie falcons then migrate from the NCA in late June or early July as summer heat and the desiccation of plant food sources prompt ground squirrels to descend into burrows to begin a period of seasonal torpor (USDOI 1979).

The NCA supports the largest breeding population of prairie falcons across the species range (which covers most of the Western U.S. and extends into Canada and Mexico) and past estimates suggest the NCA supports habitat for 5% of the entire population; in a highly productive year, more than 200 breeding pairs nest in the NCA, primarily in the Snake River Canyon approximately 4 miles to the south. ROI observations of foraging prairie falcons commonly occur, with one or more territories historically known within the ROI in Crater Rings (Ecosystems Sciences 2017; Environmental Assessment Appendix H: Simco East Biological Survey Reports). These territories have not been systematically surveyed since 2003, but adults and fledged juveniles are often observed within Crater Rings (2020 KWarner, personal communication).

Prairie falcons most commonly forage in sagebrush habitat in the northwest portion of the ROI and the OCTC and are least common in the southeast (including the project area) where disturbed habitats are dominant (USDOI BLM 1996).

### **Golden Eagle**

Golden eagles are a resident and migratory raptor species that breeds in the NCA beginning in mid-to- late January. In the NCA, golden eagles typically nest along the cliffs of the steep canyon walls of the Snake River. Most eagles do not acquire a nesting territory until they are at least four years old, after they have molted into definitive adult plumage. A territory may contain up to 14 nests, which a pair maintains and repairs as part of their courtship (BLM 2017d). The nesting season extends more than six months from the time eggs are laid until young reach independence (March – August). Eagle nestlings hatch the early April with most young fledged by late July (USDOI BLM 2008). On average, annual military training in the ROI begins in May and continues through August which overlaps with the golden eagle nestling phase for approximately 50 of their 115 day nesting period. A typical golden eagle raises an average of only one young per year and up to 15 young over its lifetime. The number of young that golden eagles produce each year depends on a combination of weather and prey conditions. The black-tailed jackrabbit (*Lepus californicus*) is a key prey species throughout much of the range, and eagle reproductive rates historically fluctuate with jackrabbit population cycles (Kochert et al 2002). Golden eagles forage mostly in and near shrublands which occur primarily in the northwest of the ROI and OCTC, and their presence is highly correlated with black-tailed jackrabbits (USDOI BLM 1996, as cited in Warner 2014a). Forty known nesting territories occur throughout the NCA along the Snake River Canyon; one known golden eagle territory occurs in the ROI and just north of the project area in Crater Rings. This territory has been systematically surveyed (1974-present) with documented successful breeding 30 of 46 years (65%). Only one year during this time period (1985) was the territory not occupied by a golden eagle pair. There are historic and recent survey (Ecosystems Sciences 2017, Appendix H to EA) observations of golden eagles foraging in the ROI and project area.

Golden eagles historically feed on jackrabbits that rely on sagebrush habitat in the northwest portion of the ROI and the OCTC (USDOI BLM 1996). This habitat has declined across the NCA by over 50% due to fire since 1979 with resulting declines in golden eagle populations (USDOI BLM 1996). As a result of intensive firefighting in and near the OCTC, much of the remaining sagebrush habitat in the NCA occurs in the northwest of the ROI and inside the OCTC. Across the NCA, golden eagles have lower nest occupancy rates when located near burned habitat with some eagle pairs foraging farther from their nest when located near burned habitat (USDOI 1996).

## **Ferruginous Hawk**

Ferruginous hawks are a migratory species that arrive in the NCA in late February to begin courtship and breeding. They are opportunistic and nest in trees, shrubs, on cliffs, rock outcrops, buttes, and utility structures; breeding pairs have also been documented using farm equipment as nest sites in the NCA. In the NCA and specifically in the ROI, most known ferruginous hawk nests are on artificial nest platforms that were specifically built for the species. Nesting occurs from March – July. Ferruginous hawk nestlings hatch early April with most young fledged by late July (USDOI BLM 2008). On average, annual military training in the ROI begins in May and continues through August which overlaps with the nestling phase for approximately 46 of their entire 76 day nesting period. Nine historically known ferruginous hawk nests (on power poles and one platform) occur in the ROI with another nine nests within three miles. During recent surveys of all eighteen of these historic nests and nesting territories, one nest on a natural rock substrate was occupied inside Crater Rings, north of the project area. Additionally, one man-made nest platform (cow pasture platform) consistently occupied (2016-present) by ferruginous hawks is located in the northwest corner of the project area. During wildlife surveys in 2016, Ecosystems Sciences (2017) and IDARNG (Appendix H to EA), technicians did not observe any ferruginous hawks foraging within the project area.

## **Ground Nesting Species**

### **Burrowing Owl**

Burrowing owls are another migrant raptor species that spends its breeding season in the NCA and the ROI. They generally arrive and lay eggs by the middle of March and leave the by October; a small number of individuals of unknown origin (owls that likely did not breed in the NCA) winter in the area (Belthoff & King 2002). Burrowing owl nestlings hatch early to mid-April with most young fledged by August (USDOI BLM 2008). On average, annual military training in the ROI begins in May and continues through August which overlaps with the nestling phase for up to 28 of their entire 56 day nesting period. In the NCA and ROI, burrowing owls prefer open grassland habitat and typically nest in burrows dug most often by badgers. Core nesting period, including eggs and nestling, is March 7 through August 7. In the ROI, eggs hatch as early as April 15 and nestlings are able to walk to alternate burrows two weeks after hatching. During 2016 surveys, twenty burrowing owls were observed in the project ROI, and based on suitable habitat, are assumed to be nesting within the area. A 2017 survey in the ROI, OCTC and NCA detected burrowing owls at 38% of 212 observation points compared to owls detected at 8 % of points outside the NCA suggesting the ROI supports a widespread, nesting population (Belthoff et al. 2017). Burrowing owls are open habitat birds (prefer areas with sparse and low vegetation) but the birds in the ROI and NCA were more likely to nest near higher sagebrush cover (Belthoff et al. 2017).

## **Long-billed Curlew**

Long-billed curlews are a migratory species and North America's largest shore bird. They migrate to the NCA in March, begin breeding in April, eggs hatch middle of May and birds leave the area by July (Jenni et al. 1981). On average, annual military training in the ROI begins in May and continues through August which overlaps with curlew egg incubation phase for 15 days and the mobile young rearing away from the nest period for 35 of their 65 day nesting period. Curlew chicks are able to walk and leave their nest five hours after hatching, are able to feed after 10 hours and highly mobile broods leave their nest territory soon after. Similar to burrowing owls, curlew prefer open grassland habitat and areas dominated by short statured grass species such as Sandberg's bluegrass and cheatgrass. Curlews are annually documented in the project ROI; and the upland grass habitat in the project area likely supports nesting curlews. Recent ROI curlew survey (Coates et al. 2021) estimated four years of curlew abundance and nesting success in two areas of the ROI (NW corner with little military training, high public use and SE corner with military training, little to no public use). Point count surveys (Halka et al 2021) within the NCA and a majority in the ROI observed long-billed curlews as the fourth most detected bird species. Curlew density and nest success was highest at the SE site all four years. IDARNG curlew surveys (2013-2019) reported an increase in average overall curlew abundance on ROI survey routes with 2018 and 2019 higher than previous five years (OCTC Annual Summary Report 2019).

## **Piute Ground Squirrel**

Piute ground squirrels are a key prey species for many raptors in the NCA. As previously discussed, they are a critical prey item for breeding prairie falcons and are important food items for prairie falcons and ferruginous hawks. In addition to their importance as raptor prey, ground squirrels likely increase plant productivity by loosening, aerating, and mixing soils (Yensen 2001). Piute ground squirrels are widespread across the ROI and a 2013-2016 Piute ground squirrel mark/recapture study in nearby, similar habitat reported a range of 11.6 – 21.9 individuals per hectare (Tinkle et al 2016). Ground squirrels are more often found in areas of perennial grasses (Sandberg's bluegrass) and sagebrush with a perennial grass understory. Long-term population trends are not available but estimates for 1975-1982 and 1991-1994 indicated ground squirrel densities were higher in 1992 compared to the earlier study and decline the year following a drought (USDOI BLM 1996). A majority of the ROI (60%) is mid to high quality Piute ground squirrel habitat compared to the project area with a majority of lower quality squirrel habitat (Table 2). Ground squirrels today are so widespread and numerous, especially in the north portion of the ROI and OCTC, that they are a popular sport hunting target throughout the ROI and NCA.

## **Black-tailed jackrabbit**

Black-tailed jackrabbits are widespread throughout the ROI, OCTC and the NCA and distribution is closely related to shrub habitats (sagebrush) with native perennial grasses (USDOI BLM 1996). Jackrabbits are more likely to be found in larger shrub areas and less often in

burned areas or those with little shrub cover. Large scale loss of shrub habitat across the ROI and NCA as a result of fire, is related to lower jackrabbit populations (USDOI BLM 1996). The majority of the remaining shrub and high quality jackrabbit habitat in the NCA and ROI is in the OCTC with smaller patches of sagebrush in the middle and eastern corner of the project area (Table 2).

**Table 2. Breakdown of Raptor Prey Habitat Quality**

<b>Wildlife Habitat Quality</b>	<b>ROI (Acres)</b>	<b>ROI (Percent)</b>	<b>Proposed Project Area (Acres)</b>	<b>Proposed Project Area (Percent)</b>	<b>Proportion of Proposed Project Area in ROI<sup>a</sup></b>
High	54,623	26	4,399	16	8
Moderate	69,628	33	11,150	39	16
Low	86,255	41	12,884	45	15
Total	210,056	100	28,433	100	14

<sup>a</sup> This column represents the proportion of each classification present in the ROI that occurs within the proposed project area.





- 1 **Appendix K**
- 2 **Cultural Survey Summary**

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## ***Introduction and Background***

This report addresses the cultural resources within and adjacent to the proposed Simco area. The Area of Potential Effect (APE) is on land east and south of the boundary of the Idaho Army National Guard (IDARNG)'s Orchard Combat Training Center (OCTC). Previous archaeological investigations have produced documentation of hundreds of historic and prehistoric cultural resources within the boundaries of the OCTC. A brief discussion of the prehistory of the area is discussed in this section along with the results of a cultural resources inventory that was conducted in 2016 by the IDARNG's Cultural Resources Management Program. The project area is not within an area identified for sensitive paleontological resources (Plew 2013); therefore, this resource is not discussed.

Cultural resources include archaeological resources (both prehistoric and historic), historic architectural resources, and traditional cultural properties that are important to Native American tribal members for their subsistence, economic, religious/spiritual, medicinal, historical, and other values. Historic properties are cultural resources that reflect the Nation's heritage and include prehistoric and historic archaeological sites, buildings, traditional cultural properties (TCP), Indian Sacred Sites, Indian Trust Assets, and any other historically significant places that are eligible or recommended as eligible for listing on the National Register of Historic Places (NRHP).

The project area lies within the traditional territory of the Northern Shoshone, Northern Paiute, and Northern Bannock Tribes. Paleo-Indian evidence discovered near Celebration Park shows the presence of humans in southern Idaho for approximately 15,000 years. From 1868 through 1877, hostility with non-Natives and inadequate facilities at Fort Hall made life very difficult for the Bannocks and Snake River Shoshones. Although the Bannock and Shoshone had been guaranteed access to traditional hunting, gathering, and fishing areas, the hostility of settlers off the reservation was as great as that of those encroaching on Fort Hall. In 1879, the Western Shoshone Agency was moved to Duck Valley but most of the people under its jurisdiction were acknowledged to be in more than a dozen communities outside the reservation. Between 1882 and 1886, about 300 people under Bruneau John, Big Jim, and Panguitch consented to permanently reside at Duck Valley. In 1884, Egan's Bannocks plus the Paddy Cap, Panguitch, and Leggins bands were released from the Yakama reservation and many moved to the Duck Valley reservation. Though many bands of the Bannock, Shoshone, and Paiute were confined to various reservations, they continued to use the cultural and natural resources of southern Idaho. The Tribes of the Duck Valley and Fort Hall reservations still use and depend upon the cultural and natural resources that they have traditionally used for centuries.

Today the Shoshone-Paiute Tribes residing on the Duck Valley Reservation actively practice their culture and retain aboriginal rights and/or interests in this area. The Shoshone-Paiute Tribes assert aboriginal rights to their traditional homelands as their treaties with the United States, the Boise Valley Treaty of 1864 and the Bruneau Valley Treaty of 1866, which would have extinguished aboriginal title to the lands now federally administered, were never ratified. The Fort Bridger Treaty of 1868 guarantees off-reservation treaty-reserved fishing, hunting, gathering, and similar rights of access and resource use to the Bannocks and Shoshones on traditional hunting, gathering, and fishing areas on public lands.

Although bands of the Bannock, Shoshone, and Paiute were confined to various reservations, they continued to use cultural and natural resources of southern Idaho and continue to use the same traditional cultural and natural resources they have used for centuries (Stout and Associates 2004).

Several comprehensive overviews of prehistoric life in southwestern Idaho provide the important context with which to evaluate properties from such periods (BLM 2008). The known cultural resources include prehistoric sites, historic sites, and multi-component historic/prehistoric sites. These sites create an important record of human occupation and use of the environment that spans several millennia. Based on inventories conducted to-date, the most common type of prehistoric site within the APE and surrounding areas is the lithic scatter, which may contain stone tools such as knives, arrows, spear points, and scrapers as well as Intermountain Brown-Ware Pottery sherds. More often, however, a lithic scatter may simply contain flakes of stone debris left during the process of making or sharpening stone tools.

Other prehistoric site types include caves, habitation sites, rock shelters, burials, and rock art sites left by Native Americans. The Snake River Canyon provided protected residential locations and fishing stations for salmon that were an important resource. The anadromous fishery was first interrupted on the Snake River by the construction of the Swan Falls Dam in 1901 and later by other downstream dams. The Great Basin, Plains, and Columbia Plateau cultures influenced the Native American inhabitants who lived within the greater area surrounding the APE. Native American groups associated with all three cultural areas lived on, or traversed through, the lands in and around the APE for thousands of years, during which time they hunted, fished, gathered plant foods, conducted religious ceremonies and buried their dead.

The Shoshone-Bannock Tribes of the Fort Hall Reservation and the Shoshone-Paiute Tribes of the Duck Valley Reservation continue to maintain an active interest in the APE and surrounding area. Individual tribal members use public lands to gather plants or other natural materials, hunt, fish, and conduct religious rituals. The Shoshone-Bannock and Shoshone-Paiute nations continue to make connections to their past and create new cultural and religious sites within the areas surrounding the APE. The Tribes and the IDARNG routinely consult in government-to-government meetings to discuss proposed projects and their possible impacts to tribal resources. The IDARNG's management of resources within and around the APE must recognize and reflect an understanding of Native American Indian rights and interests and the importance of Native American Indian treaty rights and accompanying federal government trust responsibilities.

The region was used in the historic period by fur trappers, emigrants on the Oregon Trail, gold miners, ranchers and homesteaders. The most common type of historic cultural resources within or near the APE include cattle and sheep camps, homesteads, stone monuments, ditches, and depressions from the 19th century and the early part of the 20th century. Other historic period sites include transportation road networks, trails, irrigation ditches, and historic trash dumps or scatters. Historical overviews and summaries may be found in cultural resource books and reports (BLM 2008).

### ***Site Inventory-Methods***

The primary sources of information used for the Class I inventory are the IDARNG's multiple Section 106 and 110 Archaeological surveys conducted by the IDARNG, and the SHPO record search which addressed all known cultural resources within the entire project area. A Class III Archaeological Survey was also conducted throughout the entirety of proposed project area to locate and record all cultural resources, consistent with the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716).

Based on the potential presence of historic and prehistoric resources associated with the APE, a Class III pedestrian archaeological survey of the proposed APE was conducted in 2016 and 2017. The survey

consisted of six to ten archaeologists spaced no more than 30-meters apart throughout the entirety of the APE using site recording techniques that meet all Secretary of the Interior and Idaho State Historic Preservation Office (SHPO) standards.

Guidelines used to identify historic resources are outlined as follows: Cultural Resources are defined as historic properties outlined by the National Historic Preservation Act (NHPA), cultural items as defined by the Native American Graves and Repatriation Act (NAGPRA), archaeological resources as defined by Archaeological Resources Protection Act (ARPA), sacred sites as defined in EO 13007 to which access is afforded under American Indian Religious Freedom Act (AIRFA), and collections and associated records as defined in 36 CFR 79.

**Site Inventory-Results**

As mentioned, a Class III site inventory was conducted on the entire APE in 2016 and 2017. The entire APE is approximately 30,453 acres.

Three types of cultural resource inventories are conducted to identify and assess cultural resource values on public lands:

- Class I inventories evaluate existing data from published and unpublished documents.
- Class II inventories involve sample surveys designed to characterize the probable density, diversity and distribution of cultural resources.
- Class III inventories entail continuous, intensive surveys to locate and record all cultural resources in a project area.

See below for a detailed description and list of all previously recorded and newly recorded historic resources resulting from the Class III archaeological survey of the APE.

A Class I inventory of existing data for the proposed APE portrays lands within the project area as containing a number of resources representing both prehistoric and historic use of the area. The sites recommended as eligible have the potential to offer key information pertaining to the prehistoric and historic use of the project area. Table 1. below contains a detailed description of the previously recorded sites within the project’s APE. Table 2. provides detailed descriptions of newly recorded sites within the APE.

**Table 1. Previous Cultural Sites**

Site Number	Description	Preliminary NRHP Eligibility
10EL905	window glass, stove pipe, wire nails, sanitary and solder-top cans, lumber frags, whiskey bottle, rock alignment (forming a right angle)	Undetermined
10EL975	historic stopper bottle, purple glass	Undetermined
10EL985	Shepherd camp-cans, window glass, tobacco tin, wire, canning jar, pie plate	Not Eligible

10EL1008	purple bottle top, green/white coffee pot, rusted tobacco can	Undetermined
10EL1009	2 point frags - 1 obsidian, 1 red ccs	Undetermined
10EL1339	lithic scatter; flakes, 2 bifaces	Ineligible
10EL1345	2 cairns, rock alignment, can lid	Ineligible
10EL1346	2 cairns, lithic scatter, historic scatter; flakes, 4 bifaces, 2 points; glass, wire, cans	Eligible
10EL1348	Milk can	Ineligible
10EL1347	3 Cans	Ineligible
10EL1433	rock alignment of unknown period	Undetermined
10EL1434	earth berm and rock dam structure	Undetermined
10EL1592	Glass bottle	Undetermined
10EL1594	3 flakes	Undetermined
10EL1595	rock cairn	Undetermined
10EL1596	rock pile	Undetermined
10EL1597	horseshoe shape rock alignment, tobacco tin, coke bottle	Undetermined
10EL1598	Obsidian biface fragment	Undetermined
10EL1599	whiskey bottle	Undetermined
10EL1600	Coffee pot	Undetermined
10EL1601	Point	Undetermined
10EL1602	point and flake	Undetermined
10EL1603	4 Obsidian flakes	Undetermined
10EL1604	Rock alignment	Undetermined
10EL1605	Rock cairn	Undetermined
10EL1606	rock alignment and historic debris; stove parts, horseshoe, farming tools, wood, cans, metal glass	Undetermined
10EL1607	lithic scatter; flakes	Undetermined
10EL1608	historic debris; cans, car parts, glass, metal, wire	Undetermined
10EL1609	lithic scatter; flakes	Ineligible
10EL1610	Tobacco tins, historic ceramics, historic glass, sanitary cans, buckets	Undetermined
10EL1611	lithic scatter; flakes	Undetermined
10EL1615	lithic scatter, rock alignment, and historic debris; points,	Undetermined

	bifaces, pottery, flakes; glass, cans	
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Recovered from the surveys were thirty-two newly recorded archaeological sites. The sites recovered include 10EL2547, 10EL2548, 10EL2549, 10EL2550, 10EL2551, 10EL2552, 10EL2553, 10EL2554, 10EL2555, 10EL2556, 10EL2557, 10EL2558, 10EL2559, 10EL2560, 10EL2561, 10EL2562, 10EL2563, 10EL2564, 10EL2565, 10EL2566, 10EL2567, 10EL2568, 10EL2569, 10EL2590, and 10EL2591.

Sites 10EL2548 and 10EL2554 are prehistoric sites wherein site 10EL2548 is a discrete lithic and pottery scatter that includes lithic reduction flakes of all stages, two projectile points, sherds of Shoshone brown-ware pottery, and a biface. Meanwhile, site 10EL2554 is a small scatter of three Intermountain Grey Ware pottery sherds. Both 10EL2548 and 10EL2554 are considered eligible given their possible information potential (Criteria D) considering the presence of typological lithic forms and examples of specific forms and types of pottery.

Sites 10EL2549, 10EL2550, 10EL2553, and 10EL2568 are stacked volcanic rock cairns/alignments. Site 10EL2549 is a three foot tall, five course rock cairn comprised of thirty-five rocks. The only other associated cultural material includes a small colorless glass fragment. Next, site 10EL2550 is a multicomponent site composed to two rock piles measuring ~6 feet in diameter and with 200 rocks contained in each. The only other associated cultural material is one hole-in-top can. The site is situated on the eastern bank of a creek. A one-ton pulley was found on the western bank of the creek which may indicate the site's use as a ferry. The site 10EL2553 is associated with a 100-meter long rock berm alignment as well as broken glass and a tin can. Finally, site 10EL2568 is a single rock cairn with four courses and twenty-two stones. There is little related diagnostic cultural material related to these rock cairns to make distinctions between older prehistoric or later, possibly contemporary time periods. Therefore, the time depth of the rock cairns are considered inconclusive and their corresponding eligibility for listing on the NRHP is considered "Not Eligible".

Sites 10EL2547, 10EL2551, 10EL2552, 10EL2555, 10EL2556, 10EL2561, 10EL2562, and 10EL2563 are various historic dumps with differing levels of time depth and forms. Included in the inventory of these sites are sanitary cans, hole-in-top cans, hole-in-cap cans, tobacco tins, c-ration cans, amethyst, aqua, and brown glass fragments, a USGS marker, metal pails, barrel hoops, a stove base/pipe, and various cookware.

Sites 10EL2557 and 10EL2560 are historic can scatters wherein 10EL2557 contains 34 tin cans of various typologies and 10EL2560 contains sanitary, coffee, corn oil, hole-in-top cans, and an olive green colored bottle base. Both 10EL2557 and 10EL2564 are considered "Not Eligible" for listing on the NRHP because the sites lack diagnostic material associated with a time period or site function or little potential for subsurface materials due to shallow topsoil depth, evident by the exposure of area bedrock/subsurface.

Sites 10EL2558 , 10EL2565, 10EL2566, and 10EL2567 are basalt rock cairns. There are no other cultural materials associated with these sites. The lack of cultural material makes it difficult to date the sites, to identify site function or to tie it to an important person or event. The nature of these four sites make them "Not Eligible" for listing on the NRHP.

Sites 10EL2590, 10EL2591, 10EL2559 and 10EL2569 are all lithic scatters. 10EL2590 and 10EL2591 both sites are composed of late stage reduction lithic flakes. No tools were found at 10EL2590 but an obsidian

projectile point tip and two ignimbrite midsections were recorded at 10EL2591. These two sites are considered “Not Eligible” because the cultural remains are not associated with events that have made a significant contribution to the broad patterns of history (Criterion A), with persons significant in the past (Criterion B), nor do they contain elements that embody distinctive characteristics of a type, period, or method of construction (Criterion C). The sites’ assemblages demonstrate little data potential and are limited on the study of subsistence related items and to time-sensitive artifacts. Furthermore, the shallow surface depth is evident of a corrupted site matrix, eradicating any possibility of pulling data from the site’s cultural material. Site 10EL2559 consists of lithic debitage of all reduction stages with materials ranging from obsidian to white and orange chert. There is also one tin ration can associated with the site with Sandburg’s bluegrass and burr-buttercup growing throughout the site in silty soil. The site is considered “Not Eligible” due to a lack of information potential considering the site lacks diagnostic material associated with a time period or site function or little potential for subsurface materials due to shallow topsoil depth, evident by the exposure of area bedrock/subsurface. Meanwhile, site 10EL2568 is a lithic scatter consisting of 84 flakes of various reduction stages including shatter, secondary (dominant stage), and tertiary flakes. Also included is an obsidian midsection measuring 12 mm x 11 mm x 3 mm. The site’s eligibility for listing on the NRHP is recommended as being “Eligible” in regards to Criteria “D”, information potential, considering the amount of diagnostic material of which speaks to the temporal and behavioral context of the site. The topsoil depth is also estimated to be deeper than the typical soil surrounding the site’s OCTC geological matrix context.

Finally, site 10EL2564 is a single obsidian biface measuring 21 mm x 18 mm x 6 mm. Silty soil and basalt rocks litter the surface due to shallow topsoil. The vegetation consists of pepperweed, Sandburg’s bluegrass, and various species of lichen/moss. The site’s eligibility for listing on the NRHP is recommended as being “Not Eligible” in regards to Criteria “D”, information potential considering the site lacks diagnostic material associated with a time period or site function or little potential for subsurface materials due to shallow topsoil depth, evident by the exposure of area bedrock/subsurface.

All cultural materials from the sites, as well as the isolates, are surface finds. No subsurface testing or collection was conducted. The functions of each site were not ascertained as of this project. The dominant natural impacts include deflation, erosion, rodent burrowing, as well as grazing. Within the survey area’s environmental context there are sporadic basaltic outcrops (bed rock) interjecting themselves between sediment. These basalt outcrops are evidence of a very small archaeological context below the surface of the ground (which lies <10 cm below the surface in some instances). The process of uncovering archaeological sites and isolates due to deflation and erosion, and revealing the bed rock, destroys the initial context, therefore destroying any data potential and ruining any of the cultural materials’ integrity. All of these processes are currently in affecting cultural materials located in this survey area, and therefore creating a situation where the eligibility for inclusion on the NRHP due to a lack of integrity on the cultural materials’ initial intent often creates an “ineligibility” for inclusion on the NRHP.

**(Table 2). New Cultural Sites**

Site Number	Description	Eligibility
10EL2590	Prehistoric lithic scatter	Ineligible
10EL2591	Prehistoric lithic scatter	Ineligible
10EL2547	Can scatter	Ineligible



10EL2548	Prehistoric lithic and pottery scatter	Eligible
10EL2550	Two rock piles and one hole-in-top can	Ineligible
10EL2551	Historic dump	Ineligible
10EL2552	Historic dump	Ineligible
10EL2553	Round reservoir, rock walls and historic scatter	Ineligible
10EL2554	Pottery sherds	Eligible
10EL2555	Can scatter	Ineligible
10EL2556	Can and bottle scatter	Ineligible
10EL2557	Can scatter	Ineligible
10EL2558	Rock cairn	Ineligible
10EL2559	Lithic debitage	Ineligible
10EL2560	Can scatter	Ineligible
10EL2561	Can Scatter	Ineligible
10EL2562	Historic dump/scatter	Ineligible
10EL2563	Historic dump/scatter	Ineligible
10EL2564	Obsidian Biface	Ineligible
10EL2565	Rock cairn	Ineligible
10EL2566	Rock cairn	Ineligible
10EL2567	Rock cairn	Ineligible
10EL2568	Rock cairn	Ineligible
10EL2568	Lithic Scatter	Eligible

***Isolates/Noted but not recorded***

A total of 571 isolates were recorded during survey. Of the isolates recorded, 536 are undiagnostic and were therefore noted but not recorded. These noted but not recorded isolates included coffee cans, can fragments, hole-in-cap cans, hole-in-top cans, oil cans, oil filter cans, olive oil cans, ration cans, sanitary cans, solder dot cans, syrup cans, tin dogs, tobacco tins, ceramic fragments, glass fragments including amethyst, clear, and green colors, barrel hoops, metal buckets, pots, and pails, metal cylinder, metal farm equipment, metal fuel cans, horseshoes, metal scraps, metal stove fragments, metal tools, metal trays, utensils, obsidian primary flakes, basalt primary flakes, cryptocrystalline primary flakes, secondary flakes including cryptocrystalline and obsidian materials, shell, obsidian, basalt, and chert tertiary stage flakes.

There were 35 diagnostic isolates recorded during survey. The diagnostic isolates include GFI-LS-25- an obsidian scraper, GFI-LS-26- an obsidian biface, GFI-LS-27- an obsidian base, GFI-LS-28-an obsidian Eastgate projectile point, GFI-LS-29-an obsidian Rose Spring projectile point, GFI-LS-30-a complete colorless glass bottle embossed with "M&R ACME FLAVORING COMPANY BRAND REG", GFI-LS-32-a basalt chipped stone knife, GFI-LS-34- an obsidian Elko projectile point, GFI-LS-36- an aqua "Coca-Cola" 6 oz. bottle, GFI-LS-37- an aqua "American Bottle Company" liquor bottle, GFI-LS-38- a clear 60 mm in length worked glass fragment, GFI-LS-39- an obsidian broken stemmed-bottom fragment, GFI-LS-40-an aqua glass soda bottle, GFI-LS-41- a chert scraper, GFI-LS-42- a brown glass bottle base embossed with "H.G.W./21'", GFI-LS-43- a brown glass whiskey bottle, GFI-LS-44- an ignimbrite Rosegate projectile

point, GFI-LS-45- an obsidian desert side notch projectile point, GFI-LS-46- an obsidian Rosespring projectile point base, GFI-LS-49- an obsidian desert side notch projectile point, GFI-LS-51- a chert projectile point, GFI-LS-52- a cryptocrystalline biface tip, GFI-LS-53- a colorless glass bottle with “Shenley” embossed, GFI-LS-54-an obsidian scraper, GFI-LS-55- a colorless glass liquor bottle with an Owens-Illinois maker’s mark, GFI-LS-56-an obsidian Desert Side Notch, GFI-LS-57-a chert projectile point midsection, GFI-LS-58-an ignimbrite biface base, GFI-LS-59-a cryptocrystalline biface, GFI-LS-60-a chert biface, GFI-LS-61-chert scraper,GFI-LS-62- a colorless worked glass, GFI-LS-64- a colorless “C54” 1.5 X 2 inch sealed bottle with rusted lid and brown residue, and GFI-LS-65- a metal license plate “Farm TK-35-IDA” 2H 9 (see Table 3).

**(Table 3). Diagnostic Isolates**

<b>GFI Number</b>	<b>Artifact Material</b>	<b>Artifact Type</b>	<b>Description</b>	<b>Owner</b>
GFI-LS-25	Obsidian	Scraper	Obsidian scraper	State
GFI-LS-26	Obsidian	Biface	Obsidian biface	State
GFI-LS-27	Obsidian	Base	Projectile point base	State
GFI-LS-28	Obsidian	Projectile Point	Eastgate	State
GFI-LS-29	Obsidian	Projectile Point	Rose Spring	State
GFI-LS-30	Glass	Bottle	Colorless Glass bottle; “M&R ACME FLAVORING COMPANY BRAND REG”	State
GFI-LS-32	Basalt	Knife	Chipped stone knife	State
GFI-LS-34	Obsidian	Projectile Point	Elko point	BLM
GFI-LS-36	Glass	Aqua Glass Bottle	Coca Cola. Trademark registered min. contents 6-fl.ozs \\\ Boise, ID.	BLM
GFI-LS-37	Glass	Aqua Glass Bottle	American Bottle Company liquor bottle	BLM
GFI-LS-38	Glass	Colorless Glass	60 mm length; 'worked' glass frag	State
GFI-LS-39	Obsidian	Base	Stemmed projectile point base	State
GFI-LS-40	Glass	Aqua Glass Bottle	soda bottle, 1920s, irregular slug plate	State
GFI-LS-41	Chert	Scraper	green with orange outer	State
GFI-LS-42	Glass	Brown Glass Bottle Fragment	H.G.W./21' on bottom, bubbles in glass	State
GFI-LS-43	Glass	Brown Glass Bottle	glass bottle whiskey machine amber brown	State

GFI-LS-44	Ignimbrite	Projectile Point	grey, rosegate series	State
GFI-LS-45	Obsidian	Projectile Point	Desert side notch projectile point 2.3 x 1.5mm 3mm	State
GFI-LS-46	Obsidian	Projectile Point	obsidian projectile point rosespring base	State
GFI-LS-49	Obsidian	Projectile Point	obsidian projectile point serrated large desert side notch; 28mmX27mm X 3mm	State
GFI-LS-50	Obsidian	Projectile Point	desert side notched	State
GFI-LS-51	Chert	Projectile Point	chert tan projectile point partially serrated; 80mmX29mmX5mm	State
GFI-LS-52	Cryptocrystalline	Biface	ccs biface tip white	State
GFI-LS-53	colorless glass	Bottle	colorless glass bottle with "Shenley" embossed on it	BLM
GFI-LS-54	obsidian	Scraper	obsidian scraper measuring 61X45X19 mm	BLM
GFI-LS-55	Colorless glass	Bottle	Colorless glass liquor bottle with an Owens-Illinois company maker's mark on the base	BLM
GFI-LS-56	Obsidian	Projectile Point	Obsidian Desert Side Notch with a portion of the base missing. It measures 20 x 12 x 2 mm	BLM
GFI-LS-57	chert	Midsection	brown chert projectile point midsection measuring 28x10x4mm	BLM
GFI-LS-58	Ignimbrite	Base	ignimbrite biface base with a ground edge	BLM
GFI-LS-59	Cryptocrystalline	Biface	Tan biface	State
GFI-LS-60	Chert	Biface	biface	State

GFI-LS-61	Chert	Scraper	White unofficially worked flake	State
GFI-LS-62	Glass	Colorless Glass	Worked glass	BLM
GFI-LS-64	Glass	Colorless Glass Bottle	'C54'; 1 1/2 x 2 inch; sealed w rusted lid; brown residue inside	BLM
GFI-LS-65	Tin	Metal Sign	license plate 'Farm TK-35-IDA " 2H 9	BLM

**Management Recommendations**

Potential threats to the integrity of the cultural properties within the project area include deterioration of the contexts by grazing activities, rodent and badger burrowing, the environmental processes of deflation and erosion, and military activities, particularly movement and storage of tracked military vehicles as well as future development of the area. Future development could include, but not be limited to excavation of soils, construction of new pathways, and surface disruption by vehicles and people. It is recommended that consultation with the IDARNG’s Cultural Resource Manager occur and to continue to monitor the area in order to evaluate areas of future development to avoid destruction of cultural resources within the project area. All historic resources eligible for listing on the NRHP would be given a minimum fifty meter buffer from construction processes and training and all eligible sites would receive the same level of site protection measures enforced on the adjacent OCTC to include but are not limited to a 50 meter buffer around each site boundary with fencing designed to meet BLM standards and will be added to the IDARNG’s annual monitoring program to further protect the integrity of the sites. The previously recorded sites to be included into the program are 10-EL-1346, which are labelled as two rock cairns, a lithic scatter, historic scatter, flakes, four bifaces, two points, and miscellaneous historic artifacts including glass, wire, and cans; 10-EL-1615, a lithic scatter with several diagnostic projectile points, over a dozen intermountain ware sherds and a rock alignment, and 10-EL-1434, which is an earth berm and dam built from basalt rocks. 10-EL-1434’s eligibility was previously undetermined but when revisited, the field crew determined the site is eligible under criterion D. The newly recorded sites to be included in the protection program are 10EL2554, which includes three pottery sherds of Intermountain Grey Ware pottery, as well as 10EL2569, a lithic scatter of 84 flakes of various reduction stages and an obsidian midsection and 10EL2548, an extensive prehistoric lithic scatter with several projectile points and broken biface fragments.

**Determination of Effects**

There are no other impacts on any other known cultural resources within the projects’ APE. Consistent with IDARNG policies contained in the Integrated Cultural Resources Management Plan (ICRMP 2020) (Eschenbrenner et al. 2020), during project construction, all construction areas would be monitored by a qualified archaeologist to confirm that cultural materials are not impacted and all applicable BMP’s and SOP’s will be followed if any unknown historic resources are discovered during the proposed project construction and subsequent use. With the implementation of these protective measures, no direct impacts to cultural resources are expected to occur under the Proposed Action.

**Avoidance, Minimization, or Mitigation Options**

It is recommended that during road widening activities, use, and ongoing maintenance, all known sites in the area be avoided. It is also recommended that periodic monitoring by the IDARNG Cultural Resource Manager continues in order to evaluate the conditions and changes to cultural resources within this context. In consultation with the IDARNG Cultural Resource Manager, areas of future development can avoid cultural resources within the project area and as such, potential impacts can be mitigated. If any cultural resources are found, construction should stop and the on-site qualified archaeologist investigates possible impacts to cultural resources.

It is recommended that sites recommended as eligible – 10-EL-1346, 10-EL-1615, 10-EL-1434, 10EL2548, 10EL2554, and 10EL2569 be permanently protected in a manner similar to eligible sites located within the adjacent OCTC. These protection measures include but are not limited to a 50-meter buffer around the site boundaries and permanent fencing that meets BLM standards with associated off limits signage to deter public interest. The site protection plan utilized on the OCTC was developed in consultation with the BLM and the Shoshone-Paiute and Shoshone-Bannock Tribes.

### ***Conclusions***

The project area contains features such as drainages and rock outcroppings that may have been utilized by hunter gatherers in the past. Future research may yield additional information on this and other similar areas within the northern Great Basin region in relation to aboriginal uses of the area during the archaic and historic periods. These research topics potentially include prehistoric subsistence and residential patterns, early Euro-American settlement and homesteading, and information on military activities in the area.

Potential threats to the integrity of the cultural properties within the project area include deterioration of the contexts by grazing activities, rodent and badger burrowing, the environmental processes of deflation and erosion, and military activities, particularly movement and storage of tracked military vehicles as well as future development of the area. Future development could include, but not be limited to, excavation of soils, construction of new pathways, and surface disruption by vehicles and people. It is recommended that consultation with the IDARNG's Cultural Resource Manager occur and to continue to monitor the area in order to evaluate areas of future development to avoid destruction of cultural resources within the project area. Also, it is recommended to avoid all areas where cultural material has been recorded.

Due to avoidance and site protection measures, the proposed project will have no effect on any known cultural properties that are recommended as eligible for listing to the NRHP.

It is recommended that if any IDARNG personnel utilize the area for training or construction, all known sites eligible or otherwise be avoided. It is also recommended that annual monitoring by the IDARNG Cultural Resource Manager continues in order to evaluate the conditions and changes to cultural resources within this context. In consultation with the IDARNG Cultural Resource Manager, areas of future development can avoid cultural resources within the project area and as such, potential impacts can be mitigated.

It is recommended that sites recommended as eligible – 10-EL-1346, 10-EL-1615, 10EL2548, 10EL2554, and 1 10EL2569 be permanently protected in a manner similar to eligible sites located within the adjacent OCTC. These protection measures include but are not limited to a 50 meter buffer around the site

boundaries and permanent fencing that meets BLM standards with associated off limits signage to deter public interest. The site protection plan utilized on the OCTC was developed in consultation with the BLM and the Shoshone-Paiute and Shoshone-Bannock Tribes.

***Best Management Practices/Standard Operating Procedures***

The IDARNG will have a qualified archaeologist on site during initial ground disturbing phases of road widening, per IDARNG policy (ICRMP 2020). In the event that any cultural resources are encountered during road widening activities, such activities shall cease until a full assessment can be made by the attending archaeologist. Furthermore, the IDARNG shall ensure that all military personnel that use the roads be informed of the SOP's regarding inadvertent discovery of cultural resources (ICRMP 2020). Soldiers are given information on responding to inadvertent discovery situations that is incorporated into orientation materials and the IDARNG's regulation 350-12. Non-military units are also instructed on responding to inadvertent discovery situations.

The IDARNG requires that in the event of the inadvertent discovery of archaeological and/or culturally sensitive resources, measures are taken within 48 hours of discovery to protect them from further disturbance. A qualified archaeologist will then assess the significance of the discovery and implement appropriate protection and mitigation measures. In the event of discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony, the IDARNG shall ensure that all appropriate measures are implemented to protect the remains and/or items, and that all appropriate Tribes and agencies are promptly notified of the discovery, and that all applicable federal, tribal, and state procedures are followed.

- 1 **Appendix L**
- 2 **Economic Impact Study**

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**APPENDIX K:**  
**Economic Impact Study**



**OCTOBER 2015**

# **IDAHO NATIONAL GUARD ECONOMIC IMPACT STUDY**

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# CHAPTER 1: EXECUTIVE SUMMARY

## IDAHO NATIONAL GUARD ECONOMIC IMPACT STUDY

October, 2015

Richard Gardner, Bootstrap Solutions

### EXECUTIVE SUMMARY

This study examines the total economic contribution of the the Idaho National Guard and National Security in Idaho, addressing the separate impacts of the following:

- The economic impacts of the Idaho Army National Guard in the Treasure Valley
- The economic impacts of the Idaho National Guard in the rest of the state
- The economic impacts of the Idaho Air National Guard and the Idaho Military Division

Several categories within the areas listed above are analyzed: personnel, operations and maintenance, and cooperative agreements. The impacts of training expenditures and construction are also discussed, as well as non-quantifiable benefits of the National Guard on communities in the state and on National Security.

This study relies on IMPLAN (Impact Analysis for Planning), a model and set of county-specific data maintained by the Minnesota IMPLAN Group, Inc. The data is from the year 2013 and is corrected for inflation to 2014 dollars. It includes data for 505 separate sectors of the U.S. Economy. Several types of economic impact are analyzed:

- *Direct Impacts* are changes in economic activity associated with the project or program being studied. In this case, they are the expenditures made to support the Idaho Army National Guard.
- *Indirect Impacts* are changes in economic activity made by the businesses providing goods and services to, or using the goods and services of, the project or program. Here it is the expenditures made by businesses providing goods and services to the Idaho Army National Guard or using National Guard services.
- *Induced Impacts* are changes in economic activity that flow from employees using their wages to purchase goods and services needed in their households.

The total quantifiable economic impacts of the national security footprint in Idaho are aggregated from the separate analyses outlined above.

## Personnel Summary

The table below summarizes the total direct employment by the Idaho National Guard and related national security apparatus. In FY2014 there were 1,201 civilian employees and 4,054 military employees, holding full, part-time, or seasonal jobs for the National Guard in Idaho, for a total of **5,255** employees.

The size of National Guard employment will come as a surprise to many because the employees are measured inside a number of separate programs. Rarely are the four civilian employee types and up to six military employee categories summed up in this way to obtain total national security employment within a state.

**Table 1-1. FY2014 IDNG Statewide Personnel Budget**

Type	Number	Total Wages, Allowances & Benefits
State Technician	314	\$20,671,000
Federal Technician	795	\$65,352,000
Federal Contract Employees	83	\$4,659,000
Non-Appropriated Fund Employees (NAFE)	9	\$321,000
<b>Civilian Sub-Total</b>	<b>1,201</b>	
Active Duty Special Work (ADSW) and Active Guard and Reserve (AGR)	631	\$51,001,000
Substance Abuse (ADOS)	4	\$292,000
Total Full Time Mobilization Augmentee (FTMA)	0	\$0
Mobilized Traditional Soldier (M-Day Mob)	8	\$1,232,000
Traditional Soldier Not Mobilized (M-Day) and Traditional Soldier Active Duty for Training (ADT)	3,411	\$39,589,000
<b>Military Sub-Total</b>	<b>4,054</b>	
<b>TOTAL EMPLOYMENT</b>	<b>5,255</b>	<b>\$183,116,000</b>

## Summary of Direct Impacts

In all, expenditures by the Idaho National Guard and the national security apparatus amount to nearly \$319 million. About 21% of those expenditures were for equipment and materials made outside Idaho, which have no effect on the Idaho economy. The direct impacts of the National Guard within Idaho amount to nearly \$251 million. Two-thirds of total expenditures, or 85% of direct impacts are for labor.

**Table 1-2. Idaho National Guard Direct Economic Impacts**

Category	Total Expenditures	Labor	Materials	Total Direct Impact
IDARNG - Ada County	\$156,871,000	\$92,367,000	\$10,903,000	\$103,270,000
IDARNG - Rest-of-Idaho	\$29,090,000	\$25,686,000	\$1,125,000	\$26,811,000
IDARNG Ave Construction	\$17,396,000	\$5,636,000	\$11,760,000	\$17,396,000
Idaho Air Guard	\$90,484,000	\$73,362,000	\$5,749,000	\$79,142,000
IMD Personnel Salary & Benefits	\$6,642,000	\$6,642,000		\$6,642,000
Military Mgt Operations & Maintenance	\$495,000	\$161,000	\$334,000	\$495,000
Bureau of Homeland Security O & M	\$2,695,000	\$985,000	\$1,710,000	\$2,695,000
Public Safety Communications O & M	\$1,033,000	\$214,000	\$819,000	\$1,033,000
Grant Programs	<u>\$13,880,000</u>	<u>\$7,719,000</u>	<u>\$5,447,000</u>	<u>\$13,166,000</u>
<b>TOTAL</b>	<b>\$318,586,000</b>	<b>\$212,772,000</b>	<b>\$37,847,000</b>	<b>\$250,650,000</b>

## Summary of Total Economic Impacts

The direct impacts can then be introduced into the 2013 IMPLAN model of Idaho's economy, corrected to 2014 dollars, in order to obtain the indirect and induced impacts. The activities of the 5,632 employees of the National Guard in Idaho lead to a total of 10,742 jobs within Idaho. These employees receive total compensation in wages and benefits of \$347.8 million per year. They generate economic activity totaling \$484.5 million.

The total impacts can be separated by program. The table below shows the employment, labor income, and economic output generated by the Idaho Army National Guard, the Idaho Air Guard, and the Idaho Military Division. More detail is described in Chapters 3, 4, 5, 6, and 7 of this report.

**Table 1-3. Total Economic Impacts of the IDNG by Program**

Program	Total Impacts on Employment	Total Impacts on Labor Income	Total Impacts on Economic Output
ID Army National Guard	7,394	\$189,118,000	\$285,920,000
Idaho Air Guard	2,801	\$136,027,000	\$155,354,000
ID Military Division	<u>547</u>	<u>\$22,622,000</u>	<u>\$43,256,000</u>
<b>TOTAL IMPACTS</b>	<b>10,742</b>	<b>\$347,767,000</b>	<b>\$484,530,000</b>

Source: IMPLAN, 2013 data

Notes: Program impacts include personnel and Operations and Management direct impacts Employment includes all full, part-time, and seasonal jobs in Idaho. Labor Income and Output expressed in 2014 \$.



## Comparisons to the Idaho Economy

One question that arises in considering the economic impacts of an organization is what these large numbers really mean- a comparison to the economic equivalent at the state level is illuminating. For instance, the total employment impacts of the Idaho National Guard are 10,742 jobs, which is 1.18 percent of the total employment of the Idaho economy in 2013, or 911,428 full, part-time, and seasonal jobs. Another way to say this is that in the absence of the Idaho National Guard, there would be over one percent fewer jobs in Idaho. Similarly, the \$347.8 million in labor income derived from those jobs is 1.09% of all labor income in Idaho. Labor income consists of wages, benefits, and the proprietors' income generated by the self-employed. Chapter 9 provides more detail on these numbers.

In terms of economic output, the \$484.5 million in economic activity generated by the activities of the Idaho national security apparatus amounts to 0.32% of the Idaho gross domestic product. The reason that this percentage is smaller than those for employment and labor income is that the output of the Idaho National Guard are public services that are not re-sold into the economy. If the National Guard produced cars or computer chips that were sold to consumers or other businesses, then the percentage of economic output would be higher.

Finally, it is worthwhile to compare the Idaho National Guard to other major employers in Idaho. Table 9-5 shows the top employers in the Idaho economy from both the public and private sector for FY2014, the same time period as this study. The 5,255 employees calculated in Table 9-1 mean that **the Idaho National Guard would rank fourth among Idaho employers**, behind St Lukes, Wal-Mart, and Micron Technology, but ahead of BYU-Idaho, the University of Idaho, and Boise State University. One important caution to this ranking is that nearly two-thirds of the Guard's employees are part-time workers who average 61 days of work per year.

## Fiscal Impacts to the State of Idaho

A rule of thumb is that a dollar of labor income will generate five cents of tax revenue to the State of Idaho. This revenue may come as sales tax, income tax, gasoline tax, liquor tax, or many other state taxes. If this 5% rule is applied to the total labor income generated by the Idaho National Guard of \$348 million, then \$17.4 million in tax revenues of any kind accrue to the coffers of the State of Idaho. For comparison, a total of \$6,480,400 of Idaho General Account funding supports the Idaho Military Division and the Idaho National Guard in FY2015. Because the vast majority of the Idaho National Guard comes from federal funds, state government receives far more than it costs in tax revenues.

## CHAPTER 2: METHODS AND APPROACH

An *economic impact study* looks at the change in economic activity within a region, typically resulting from the expansion of a business, or the construction of a new project, or the start of a new program. It looks at the marginal change in the economy from a base condition.

This analysis is more properly termed an *economic contributions study*. Here we seek to examine the contribution of an industry or firm to the economy of a region. In this case, we are measuring the contribution of the Idaho National Guard and the entire national security apparatus in the State of Idaho.

Both types of studies rely on an input-output model, whose underlying theory was developed by Leontief in the 1950s. An input-output model is essentially a snapshot of the economy at a point in time. I-O models are constructed based on the concept that all industries within an economy are linked together: the output of one industry becomes the input of another industry until all final goods and services are produced.

It portrays all the economic linkages between sectors of the economy in a large data matrix. The columns in the matrix might be described as the “recipe” of goods and services that are required as inputs to produce another good or service.

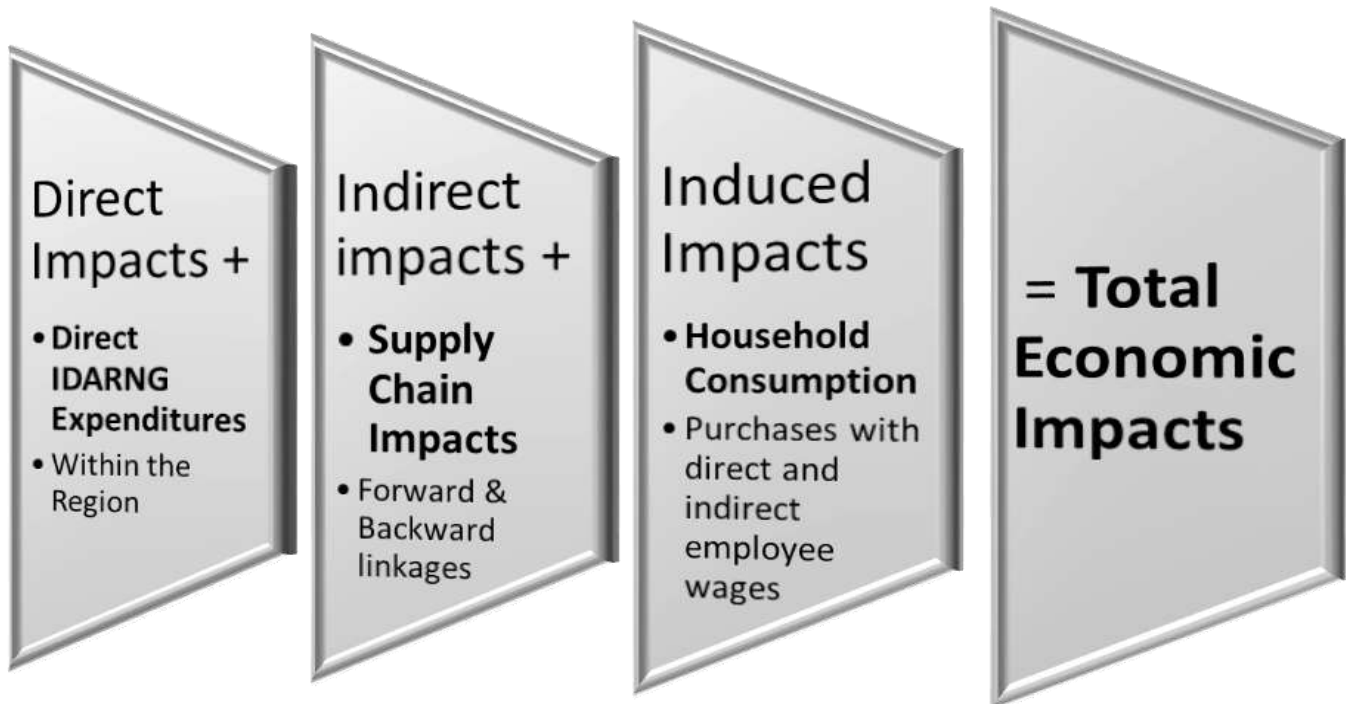
This study relies on IMPLAN (Impact Analysis for Planning), a model and set of county-specific data maintained by the Minnesota IMPLAN Group, Inc. The data is from the year 2013 and is corrected for inflation to 2014 dollars. It includes data for 505 separate sectors of the U.S. economy.

Figure 2-1 shows how economic impacts are comprised of direct, indirect, and induced impacts:

- *Direct Impacts* are changes in economic activity associated with the project or program being studied. In this case, they are the expenditures made to support the Idaho Army National Guard.
- *Indirect Impacts* are changes in economic activity made by the businesses providing goods and services to, or using the goods and services of, the project or program. Here it is the expenditures made by businesses providing goods and services to the Idaho Army National Guard or using National Guard services.
- *Induced Impacts* are changes in economic activity that flow from employees using their wages to purchase goods and services needed in their households.

It is the indirect and induced impacts that form what are commonly called the “multiplier or ripple effects,” and these are estimated by the input-output model. A multiplier is calculated as the direct impacts divided by the total impacts.

**Figure 2-1: Elements of Total Economic Impacts**



An example might help communicate these concepts. Consider a factory that makes car engines. The expenditures to hire the employees, buy the engine parts, and operate the factory are the direct effects. Indirect effects can be backward or forward linkages. Backward linkages are the provision of engine parts and the electricity, water, and telecommunications services to keep the factory operating. Forward linkages include the car assembly plants that combine the engine into a complete vehicle and the car dealers who sell the finished cars to customers.

Note that in the case of the National Guard, the forward linkages are much smaller than for other businesses. That is because the “products” of the National Guard are public goods like public safety, national security, disaster readiness, etc. These products are not re-sold into the economy in the way that a manufacturer’s products are. (One possible exception is the way that trainings at OCTC are “sold” to out-of-state units.) Forward and backward linkages make up the indirect impacts. Finally, the employees of both the car engine factory and the forward- and backward-linked businesses receive wages and spend them in the economy to support their families. These household consumption expenditures are called the induced impacts.

A study only measures the economic activity which occurs within a defined region. This economic contributions study has defined the State of Idaho as the study region. Purchases that are made to firms outside the state are not counted as impacts, but are considered *leakage* from the state economy. The more an economy leaks, the smaller the economic multipliers. And in general, the smaller the region, the more an economy will leak. This makes sense as the United States

economy produces nearly all the goods and services required, while a given rural county may not have any businesses in one or more industries, e.g. car manufacturing. Similarly, a state like Idaho does not have as complete a set of economic sectors as do states like California, Illinois, or New York. An implication for the 2015 study update is that there should be slightly less leakage from the Idaho state economy, than from the 3-county region that was analyzed in the 2012 study.

It is the direct impacts that must be specified into the IMPLAN model. This study has gathered all direct expenditures from the IDNG for the most recent fiscal year, or in some cases an average of the last three fiscal years. These expenses are broken into those which occur within the Idaho, and those which occur outside Idaho and may be excluded from this analysis. This is especially important for the National Guard, because many significant expenditures, such as for military vehicles, equipment, and ammunition, occur outside the region. In fact, many expenditures are made directly from federal Department of Defense budgets.

In addition, expenditures are divided into materials versus labor wherever possible. In some cases, such as contracted construction services, best professional estimates are made to separate out the cost of equipment use and business overhead from actual wages and benefits paid.

**Source of Funding:** Note that this economic study does not care about the source of the funds. State and federal dollars are comingled in this analysis, while they are carefully separated in an accounting framework for budgeting purposes.

**Accounting Stance:** The accounting stance refers to the geographic region that is being studied. As previously mentioned, the accounting stance for this study is the State of Idaho. The 2012 study used a three county region of Ada, Elmore, and Canyon counties.

**With and Without Principle:** One simple principle guides the analysis of both economic impact and cost-benefit studies. The With-and-without principle asks the analyst to imagine the state of the economy with and without the thing being studied. In other words, *what would the State of Idaho's economy look like in the absence of the Idaho National Guard?* On a smaller scale, the scenarios analyzed after the base case ask questions about the state of the economy with and without a land swap to improve the OCTC, or with and without the construction of a set of regional readiness centers.

**One-Time Expenditures:** This study estimates impacts of one-time expenditures, such as construction projects to improve the Orchard Combat Training Center, separately from the on-going operations of the IDARNG. Both types of impacts make meaningful contributions to the regional economy, but the operations impacts tend to create permanent jobs with recurring impacts. Construction impacts can approach the on-going nature of operations impacts, if a series of construction projects are undertaken each year in roughly the same amount.

## Chapter 3: Impacts of Idaho Army National Guard In the Treasure Valley

### Chapter Summary

The impacts of the Idaho Army National Guard are presented in two separate chapters. This chapter focuses on Army Guard activities in Ada County either at Gowen Field or the Orchard Combat Training Center. It duplicates the work done in 2012 and allows comparisons between the studies. Army Guard facilities and activities in the rest of Idaho are portrayed separately.

**Table 3-1. Summary of Direct Impacts of IDARNG Operations**

Type of Expenditure	2012 - 2014 Average			
	Total Expenditures	Local Labor	Local Materials & Services	Total Local Direct Impacts
Personnel	\$83,066,000	\$83,066,000		\$83,066,000
O&M Facilities	\$13,679,000	\$8,104,000	\$5,576,000	\$13,680,000
Cooperative Agreements	\$3,515,000	\$1,197,000	\$2,318,000	\$3,515,000
O&M - Wheeled Vehicles	\$553,000		\$33,000	\$33,000
O&M - Tracked Vehicles	\$3,374,000		\$77,000	\$77,000
O&M - Aircraft	\$52,684,000		\$2,899,000	\$2,899,000
<b>TOTALS</b>	<b>\$156,871,000</b>	<b>\$92,367,000</b>	<b>\$10,903,000</b>	<b>\$103,270,000</b>

Note: All direct impacts reported in 2014 \$.

The direct impacts of the Idaho Army National Guard are summarized in Table 3-1. Of an estimated \$156.9 million in expenditures in FY2014, \$103.3 million, or nearly two-thirds (65.8%), were expended locally within the Idaho economy. Because most parts and materials are supplied from federal contracts, nearly 90% of local expenditures were for labor costs, mostly military personnel in training here or in service abroad.

Note that local impacts in FY2014 are 16% lower than the \$123.1 million local impact in FY2011. This is largely due to the 305 soldiers mobilized and deployed overseas in 2011. The updated results include for the first time the \$3.5 million in expenditures made for Army Cooperative Agreements.

## TOTAL ECONOMIC IMPACTS OF IDARNG

From the estimates of direct impacts of personnel, operations and maintenance, and cooperative agreements by the Idaho Army National Guard, the full economic impacts can now be estimated. The direct impacts were entered into an IMPLAN input-output model for Idaho.

Table 3-2 shows the direct impacts of IDARNG operations, with total direct employment of 2,254 taken from Table 3-3 and labor of \$92.4 million and output of \$103.3 million coming from Table 3-1. Indirect impacts reflect the forward and backward business linkages, which are limited in the case of the National Guard, because so many of their supplies and equipment are manufactured out of state. However, indirect impacts do include the contractors to IDARNG and those associated with the Cooperative Agreements. Thus, 1,086 additional jobs, \$26.5 million in labor income and \$49.9 million in output are added by indirect impacts. Induced impacts flow from the expenditure of labor income by direct and indirect employees on household consumption goods and services. Induced impacts are larger, adding 1,302 employees, \$27.0 in labor income and \$51.4 million in total output. All told, the Idaho Army National Guard has total economic impacts that contribute employment of 4,643, labor income of \$145.9 million, and total economic output of \$204.6 million to the state economy of Idaho. Dividing total impacts by direct impacts yields Type II multipliers of 2.06 for employment, 1.58 for labor income, and 1.98 for economic output.

**Table 3-2. Total Economic Impacts, IDARNG Operations**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	2,254	\$92,367,000	\$103,270,000
<b>Indirect Impacts</b>	1,086	\$26,504,000	\$49,869,000
<b>Induced Impacts</b>	<u>1,302</u>	<u>\$27,003,000</u>	<u>\$51,431,000</u>
<b>Total Impacts</b>	<b>4,643</b>	<b>\$145,874,000</b>	<b>\$204,570,000</b>
<b>Multitipliers (SAM Type II)</b>	<b>2.06</b>	<b>1.58</b>	<b>1.98</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: Employment includes all full, part-time, and seasonal jobs.

All dollar estimates in 2014 \$.

### Fiscal Impacts

A detailed fiscal impact analysis is beyond the scope of this study. Being a unit of state government, the Idaho Army National Guard does not pay corporate income tax, property tax, nor does it pay sales tax on its purchases. However, many of the businesses linked to IDARNG activities will be taxpaying entities, and the people employed directly by IDARNG and indirectly as contractors will pay taxes on their income and taxable purchases.

Idaho Division of Financial Management estimated that 5.0% of total personal income becomes some form of state tax revenue (Ferguson, 2015). Applying this rule of thumb to the labor income from operations yields a conservative estimate of \$4.6 million in state tax revenues generated by

IDARNG activities in Ada County. This should be viewed as a minimum because there will be taxable purchases made by businesses supplying goods and services to IDARNG, together with corporate income tax paid on income from business done with IDARNG, that are not included in the estimate.

## **DIRECT IMPACTS**

Direct impacts are the economic activities that flow from a business or project. In the case of the Idaho Army National Guard, the business is providing for our public interests in national and domestic security, with a secondary mission in emergency response. The direct impacts are best measured through the economic transactions made with the regional economy. Five types of direct impacts can be examined for the IDARNG:

- Personnel Costs
- Facility Operations Costs (for Orchard Training Area and Gowen Field facilities)
- Cooperative Agreements
- Equipment Operations Costs

### **Personnel**

The number of full and part-time employees of the Idaho Army National Guard working in the Treasure Valley at either Gowen Field or the Orchard Combat Training Center is much larger than many people realize. The National Guard is a unit of state government that is almost entirely funded by federal dollars. Because of the way that funds flow into the organization, no single budget reveals the large number of employees at IDARNG. As Table 3-3 shows, there are nine different types of employees who may be considered state employees, federal government employees, or military employees of some status.

When mobilized for full-time duty, the wages of National Guard members are paid directly from Army budgets. However, there are no deployed soldiers in 2014 or 2015, which is the main reason that the \$83.1 million in total payroll is lower than the \$115.7 million in FY 2011.

Table 3-3 shows that the Idaho Army National Guard employs a total of 2,254 people within the Treasure Valley. By number of employees, IDARNG would rank the eighth largest employer in the Treasure Valley, ahead of Hewlett-Packard and just behind Albertson's. The total payroll including benefits amounts to \$83.1 million. All the labor expenditures can be considered locally spent.

**Table 3-3. FY2014 IDARNG Treasure Valley Personnel Budget**

Type	Number	Total Wages, Allowances & Benefits
State Technician	131	\$7,551,000
Federal Technician	486	\$39,892,000
Federal Contract Employees	68	\$3,817,000
Military	1,560	
Active Duty Special Work (ADSW) and Active Guard and Reserve (AGR)	263	\$21,263,000
Total Full Time Mobilization Augmentee (FTMA)	0	\$0
Mobilized Traditional Soldier (M-Day Mob)	0	\$0
Traditional Soldier Not Mobilized (M-Day) and Traditional Soldier Active Duty for Training (ADT)	1,297	\$10,222,000
Non-Appropriated Fund Employees (NAFE)	9	\$321,000
	<b>2,254</b>	<b>\$83,066,000</b>

While the state expenditures for salary, benefits and allowances are actual, a different approach was used to estimate military payroll because federal expenditures are not captured locally. Instead, total payroll was estimated using the number of soldiers in each rank of soldier, warrant officer, or officer, their average longevity, times the salary, allowances, and benefits linked to that rank and longevity. Soldiers were assumed married for calculating housing allowances and benefits.

Here is a brief description of each of the nine types of employees at the Idaho Army National Guard:

- **State Technician** – These are permanent state employees of the Military Division of the Governor’s Office whose pay and allowances are 100% federally reimbursed by the Department of Defense through National Guard Bureau. Most employees are *dual status* in that they are also required to be members of the Idaho National Guard.
- **Federal Technician** – These are permanent, indefinite, or temporary federal civilian employees of the U.S. Department of Defense on the general service pay schedule. Most are *dual status* in that they are also required to be members of the Idaho National Guard.
- **Federal Contract Employees** – These are employees of federal contract firms, typically supplying support to some piece of military equipment, software or providing some specialized training.



- **Military**
  - a. **Active Duty Special Work (ADSW)** - These are traditional soldiers placed on temporary full time status to augment the labor force during periods of high labor demands. Pay and allowances are commensurate with full time.
  - b. **Active Guard and Reserve (AGR)** - These are full time National Guard Soldiers responsible for the day to day administrative, supply and training preparation duties of the military units. Their pay and allowances are the same as active duty soldiers.
  - c. **Full Time Mobilization Augmentee (FTMA)** - These are traditional soldiers put on full time status to fill positions vacant due to deployment of the permanent employee. There are none currently, as there are no deployed soldiers.
  - d. **Mobilized Traditional Soldier (M-Day Mob)** - These are National Guard soldiers who have been mobilized and deployed on active duty. Their pay is shifted to the federal US Army and Department of Defense. They receive housing and subsistence allowances in addition to salary. However, there are thankfully no soldiers deployed in 2015.
  - e. **Traditional Soldier Not Mobilized (M-Day)** – These are your typical National Guard members, living in the community and doing training one weekend a month, two weeks of annual training (summer camp) and additional training, work details, and when needed emergency state and community disaster duty. They typically work 63 days per year.
- **Non-Appropriated Fund Employees (NAFE)** – There are a few employees who are paid only from fee revenue. Cleaning crews for lodging rented by out-of-region units and the recycling program are examples.

There is a tenth personnel category called Traditional Soldier Active Duty for Training. These are traditional soldiers temporarily placed on active duty for special training or to support training. Such trainings might last a few days to a few weeks. This category was included in the 2012 study. However, because it is a temporary condition of traditional M-Day soldiers, and because the people in the category are in a constant state of flux, it is ignored in this 2015 study, with all traditional soldiers captured in the M-Day status.

### **Facility Operations and Maintenance Expenditures**

The Idaho Army National Guard has a large physical plant to maintain and operate each year. This includes numerous buildings at the Gowen Field complex that are used for administration, classrooms, billeting, medical services, equipment maintenance, and mobilization activities. In addition, there are the facilities at the Orchard Combat Training Center, including the Snake River Training Facility MATES, six tactical training bases, and numerous firing ranges with support buildings, a live-fire shoot house, and battle command center.

Table 3-4 shows the average of the last three year's budgets for O & M costs for the Idaho Army National Guard. These costs consist of expenses related to building operations and upkeep, planning and design costs for base improvements, and utility costs. Maintaining the facilities cost about \$11.3 million; planning and design ran under \$1.0 million, and utility costs approach \$1.5 million, for a total cost of \$13.7 million. Of these costs, roughly \$10.7 million was contracted labor, while \$3.0 million was for supplies, materials, and equipment. All these expenditures are purchased locally within Idaho. Compared to the 2012 study, the O&M costs in Table 3-4 are sharply higher, \$13.7 million versus \$4.1 million in 2012. Most of the difference comes from sharply higher spending for Building Maintenance and Restoration and Modernization Projects in recent years.

**Table 3-4. IDARNG Facilities Operations & Maintenance Budget in the Treasure Valley**

Expense	FY 2012-14 Average		
	Total Cost	Labor Costs	Material Costs
Facility Engineering Services	\$356,583	\$86,252	\$270,331
Real Property Services	\$5,966	\$5,966	
Grounds Services	\$230,173	\$224,966	\$5,207
Janitorial Services	\$153,021	\$142,548	\$10,473
Indoor/Outdoor Pest Control	\$19,991	\$19,397	\$594
Refuse Service	\$85,486	\$85,486	\$0
Fire Services	\$730,178	\$35,516	\$694,662
Leases	\$75,017	\$75,017	
Snow Removal	\$1,503	\$1,503	
Replacement Barracks Furniture	\$103,333		\$103,333
Milcon Tails	\$163,000		\$163,000
Building Maintenance	\$5,453,136	\$5,219,114	\$234,022
Restoration and Modernization Projects	\$3,878,946	\$1,291,689	\$2,587,257
<b>Building O&amp;M Sub Total</b>	<b>\$11,256,332</b>	<b>\$9,774,711</b>	<b>\$1,481,622</b>
Master Planning	\$216,303	\$182,916	\$33,387
A&E Planning & Design Type A	\$614,472	\$614,472	
A&E Supervision, Insp & Admin	\$118,866	\$118,866	
<b>Planning &amp; Design SubTotal</b>	<b>\$949,642</b>	<b>\$916,254</b>	<b>\$33,387</b>
Water	\$180,375		\$180,375
Wast Water	\$29,403		\$29,403
Electricity	\$857,928		\$857,928
Natural Gas	\$304,974		\$304,974
Propane/Fuel Oil	\$15,024		\$15,024
Celluar Telephone Service	\$15,816		\$15,816
Chemical Latrines	\$69,905		\$69,905
Line Communication Services	\$0		\$0
<b>Utilites Sub Total</b>	<b>\$1,473,424</b>	<b>\$0</b>	<b>\$1,473,424</b>
<b>Total Total</b>	<b>\$13,679,398</b>	<b>\$10,690,965</b>	<b>\$2,988,433</b>

## Cooperative Agreement Expenditures

The Idaho Army National Guard has entered into a number of cooperative agreements with the State of Idaho to secure aspects of their operations. These agreements are for Security, Distance Learning, Environmental, Family Support, and RTLP. The personnel to implement these agreements are captured in the State Technicians line of personnel costs. Table 3-5 displays the other costs of these agreements, totaling some \$3.5 million. Expenditures have been broken into \$1.2 million in labor and \$2.3 million in materials, based on the best estimates of IMD financial managers. Note that these Cooperative Agreements extend beyond the Treasure Valley to serve the entire state.

**Table 3-5. IDARNG Cooperative Agreement Expenditures**

Expense Category	2012 - 2014 Average	% Labor	Local Labor Cost	% Materials	Local Materials Cost
Communication Cost	640,288			100%	\$640,288
Emp Development Costs	29,527	50%	\$14,763	50%	\$14,763
Emp Travel Costs	83,636			100%	\$83,636
General Services	778,537	100%	\$778,537		
Professional Services	224,311	100%	\$224,311		
Repair & Maint Serv	312,267	50%	\$156,133	50%	\$156,133
Fuel & Lubricants	2,808			100%	\$2,808
Computer Supplies	117,830			100%	\$117,830
Rep & Maint Supplies	354,215			100%	\$354,215
Other Supplies	256,498			100%	\$256,498
Utility Charges	44,640			100%	\$44,640
Rentals & Oper Leases	205,209			100%	\$205,209
Computer Equipment	201,216			100%	\$201,216
Other Equipment	218,219			100%	\$218,219
Misc Expenditures	45,408	50%	\$22,704	50%	\$22,704
	<b>\$3,514,607</b>		<b>\$1,196,449</b>		<b>\$2,318,159</b>

Notes:

General Services = General +Admin+Computer services

Other Supplies = Inst & Resident, Specific Use, and Admin supplies

Other Equipment = Motorized-Nonmotorized, Office, and Specific Use equipment

Misc Expenditures = Misc expenditures + Mfg & Merch costs + Insurance

## Vehicle and Aircraft Operations and Maintenance Expenditures

While soldiers are clearly the National Guard's most valuable resource, the equipment used in combat lies at the heart of its operations. While the majority of these costs are incurred outside Idaho, these expenditures offer the reader some sense of the scale of IDARNG operations. These O&M costs are broken into three areas—Wheeled vehicles, tracked vehicles, and aircraft.

Table 3-6 shows in detail the O&M cost of wheeled vehicles in the military fleet for FY2011, updated to 2014 dollars using the GNP Implicit Price Deflator. There are three types of cost in the cost of operating these vehicles. The first column shows the cost of *Petroleum, Oil, and Lubricants* for these military vehicles. Note that these are provided under a national military contract, so that the only local expenditure is the cost of delivery from a wholesale supplier. The second cost is for *Organizational Repair Parts*, which are the parts used to make local repairs at IDARNG facilities with IDARNG personnel. Again, an estimated 90% of these parts are specific to these vehicles and supplied under military contract from outside the region. The third column in Table 3-6 is for Depot Level Repairs. These larger components are rebuilt outside the region and sent to IDARNG for installation by IDARNG personnel. The total cost per mile of operating these vehicles is surprisingly high compared to civilian vehicles. Note that the costs in Table 3-6 do not include depreciation of the cost of the vehicle itself, or the cost of labor by military mechanics.

The number of vehicles and their average use per year is for FY2014. In total, IDARNG spent \$475,000 on operating a total of 448 wheeled vehicles in FY2014. Of that amount, only \$33,000 can be considered local expenditures.

**Table 3-6. O & M Costs, Wheeled Tactical Vehicles at IDARNG, Gowen Field and OTA**

Vehicle	Petroleum Oil & Lubricants CLS III <sup>1</sup>	Org Repair Parts CLS IX <sup>2</sup>	Depot Level Repairs CLS IX <sup>3</sup>	Total Cost Per Mile	Number of Vehicles	Ave Miles per Vehicle <sup>4</sup>	Cost per Vehicle	Total Cost	Local Expenditures
Armored Security Vehicle	\$3.72	\$0.71	\$2.91	\$7.34	7	160	\$1,173.75	\$8,216	\$288
High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	\$0.23	\$0.85	\$0.03	\$1.11	153	1,145	\$1,270.14	\$194,331	\$16,866
2 1/2 Ton trucks	\$0.39	\$0.96	\$0.23	\$1.58	50	1,160	\$1,833.05	\$91,652	\$6,707
5 Ton Trucks	\$0.62	\$0.41	\$0.31	\$1.34	44	600	\$803.71	\$35,363	\$1,892
Light Equipment Transport (14T)	\$0.59	\$0.25	\$0.24	\$1.08	4	900	\$970.11	\$3,880	\$196
Medium Equipment Transport (MET) 20T	\$0.62	\$0.41	\$0.31	\$1.34	2	16,986	\$22,753.09	\$45,506	\$2,435
Heavy Equipment Transport (HET)	\$1.11	\$8.57	\$0.60	\$10.28	3	325	\$3,339.90	\$10,020	\$890
Heavy Expanded Mobile Tactical Truck (HEMTT) series	\$1.04	\$0.99	\$1.36	\$3.39	41	620	\$2,102.21	\$86,191	\$3,844
Fuel Truck	\$0.62	\$0.41	\$0.31	\$1.34	19	1160	\$1,553.84	\$29,523	\$1,580
Wrecker	\$0.39	\$0.45	\$1.90	\$2.74	18	1350	\$3,701.47	\$66,626	\$1,564
Dump Truck	\$0.62	\$0.41	\$0.31	\$1.34	13	1100	\$1,473.47	\$19,155	\$1,025
ENG MISC	\$1.11	\$8.57	\$0.60	\$10.28	19	185	\$1,901.18	\$36,122	\$3,208
Forklift	\$0.23	\$0.85	\$0.03	\$1.11	37	80	\$88.74	\$3,283	\$285
<b>TOTALS</b>					<b>448</b>			<b>\$475,160</b>	<b>\$33,119</b>

Notes

1. Petroleum, Oil & Lubricants Nearly all through the Defense Logistic Agency. Assume 5% local trucking/delivery cost.
2. Organizational repair parts - brakes, track, parts replaced by local mechanics. Estimate 10% local parts & 90% through military channels.
3. Depot Level repairable - Engines, transmissions, differentials. Major components rebuilt at depots 100% off site military facilities.
4. Estimates based on budgeting factors and FY2014 data. Costs updated to 2014 \$ by GNP implicit deflator.
5. Actual miles vary greatly due to deployments and training cycles

Tanks and other tracked vehicles are much more expensive to operate, but this is an important component of training at this site. Cost per mile ranges from \$8.85 per mile for personnel carriers to \$331.88 per mile for a tank retriever. Table 3-7 lists the costs of operating and maintaining the 73 tracked vehicles at Gowen Field and the Orchard Combat Training Center. In total these costs were estimated for FY2014 to be \$1,927,000, of which \$77,000 is estimated to have been spent locally.

It is important to note that for all vehicles and aircraft, the amount of use will vary from year to year. The FY2014 was higher than FY2011 year for local vehicle use, due to the deployment of the 116<sup>th</sup> Battalion in the first study, but not currently, which removed many Idaho soldiers from their normal training exercises in FY2011.

**Table 3-7. O & M Costs, Tracked Vehicles at IDARNG, Gowen Field and OTA**

**Operation & Maintenance Costs - Tracked vehicles, IDARNG at Gowen Field & OCTC**

Vehicle	Petroleum Oil & Lubricants CLS III <sup>1</sup>	Org Repair Parts CLS IX <sup>2</sup>	Depot Level Repairs CLS IX <sup>3</sup>	Total Cost Per Mile <sup>4</sup>	Number of Vehicles	Ave Miles per Vehicle <sup>4</sup>	Cost per Vehicle	Total Cost	Local Expenditures
Personnel and Equipment									
Carriers	\$0.92	\$6.33	\$1.60	\$8.85	12	180	\$1,594	\$19,123	\$1,467
Artillery and Support Tracks	\$2.85	\$27.43	\$38.07	\$68.35	3	84	\$5,741	\$17,223	\$727
Bradley series	\$2.91	\$34.58	\$104.49	\$141.98	18	210	\$29,816	\$536,679	\$13,620
Tank Retrievers	\$4.96	\$47.89	\$279.03	\$331.88	10	50	\$16,594	\$165,938	\$2,518
M1 series tanks	\$19.10	\$126.04	\$127.41	\$272.55	29	150	\$40,883	\$1,185,595	\$58,982
Bulldozers	\$2.85	\$27.43	\$38.07	\$68.35	1	40	\$2,734	\$2,734	\$115
<b>TOTALS</b>					<b>73</b>			<b>\$1,927,293</b>	<b>\$77,429</b>

Notes:

1. Petroleum, Oil & Lubricants all purchased through the Defense Logistic Agency. Assume 5% local trucking/delivery cost.
2. Organizational repair parts - brakes, track, parts replaced by local mechanics. Estimated 10% local parts & 90% through military channels.
3. Depot Level Repairable - Engines, transmissions, differentials. Major components rebuilt at depots 100% off site military facilities.
4. Mileage estimates based on budgeting factors and FY2014 data, costs adjusted to FY2014 by GNP implicit price deflator.
5. Actual miles vary greatly due to deployments and training cycles

Finally, Table 3-8 displays O&M costs for army aircraft stationed at Gowen Field and used at the Orchard Combat Training Center. A total of 27 aircraft flew a total of 5,868 hours at a total cost of \$69.4 million. Of that total, an estimated \$2.9 million was spent within Idaho. The aircraft cost data are averaged over two or three years, while inventory and use are from 2014. Actual use varies widely by year, and the aircraft mix changes as improvements pass through the ranks of National Guard use and needs evolve. Eleven drones are listed in the inventory, but operating costs were not yet available.

**Table 3-8. O & M Costs, Army Aircraft, Gowen Field**

	Number of Aircraft	Petroleum Oil & Lubricants CLS III <sup>1</sup>	Org Repair Parts & Consumables CLS IX <sup>2</sup>	Depot Level Repairs CLS IX <sup>3</sup>	Operating Cost per Hour	Total Hours Flown	Total Cost	Local Expenditures
<b>Fixed Wing</b>								
C-12	1	\$248	(1)	(1)	\$1,356	660	\$895,000	\$8,000
<b>Helicopters</b>								
AH-64 Apache	17	\$554	\$6,503	\$8,360	\$16,489	3,710	\$61,175,000	\$2,515,000
UH-60 Blackhawk	7	\$353	\$3,250	\$2,143	\$5,746	1,074	\$6,172,000	\$368,000
UH-72	2	\$371	(1)	(1)	\$2,686	424	\$1,139,000	\$8,000
Drones <sup>6</sup>	11					320		
<b>TOTAL</b>	<b>38</b>					<b>5,868</b>	<b>\$69,381,000</b>	<b>\$2,899,000</b>

## Notes:

1. C-12 and UH-72 are not tactical aircraft and all maintenance is centrally funded by Dept of the Army contract.
2. The AH-64s are being phased through AH-64D upgrades leaving only 17 of the authorized 24
3. Operating cost per hour does not include crewmember cost.
4. Costs updated to FY2014 dollars using GNP implicit price deflator.
5. Aircraft numbers and hours for FY2014
6. Cost of drone operation unavailable.

**Fuel Costs**

The cost of surface and aviation fuel are already included in the O&M costs above. Fuel use is shown here for information purposes only. Note that fuel is purchased under a federal military contract, so that the only local expenditure is for fuel delivery to the base.

**Table 3-9. Total Fuel Use & Cost**

Year	2014 Average Cost per Gallon	Gallons	Total Fuel Cost
<b>Unleaded</b>			
2012		13,722	
2013		10,051	
2014		6,810	
<b>2012-2014 Average</b>	<b>\$3.61</b>	<b>10,194</b>	<b>\$36,802</b>
<b>Diesel</b>			
2012		45,278	
2013		26,346	
2014		13,071	
<b>2012-2014 Average</b>	<b>\$3.57</b>	<b>28,232</b>	<b>\$100,787</b>
<b>Army/MATES Aviation Fuel</b>			
2012		168,234	
2013		308,120	
2014		1,135,607	
<b>2012-2014 Average</b>	<b>\$3.68</b>	<b>537,320</b>	<b>\$1,977,339</b>

**Construction**

Average construction costs were included in the FY2011 study. Construction is analyzed in a separate chapter of this study.

## Chapter 4: Impacts of Idaho Army National Guard in the Rest-of-Idaho

### Summary

The 2012 study analyzed the economic impacts of the Idaho Army National Guard (IDARNG) in Ada, Canyon, and Elmore counties of the Treasure Valley, or more specifically the impacts of activities at Gowen Field and the Orchard Combat Training Center (OCTC). Chapter 4 analyzes the impact of the Idaho Army National Guard in the remainder of the state.

Table 4-1 summarizes the direct expenditures into the Idaho economy. There are 1,530 employees of the Army National Guard posted outside Ada County. An estimated 96% of the \$26.8 million in expenditures is for labor, with only \$1.1 million dollars spent on local materials and services.

**Table 4-1. Total Direct Impacts of IDARNG Rest-of-Idaho**

Type of Expenditure	FY2014 or 2012 - 2014 Average			
	Total Expenditures	Local Labor	Local Materials & Services	Total Local Direct Impacts
Personnel	\$21,838,000	\$21,838,000		\$21,838,000
O&M Facilities	\$4,879,000	\$3,848,000	\$1,031,000	\$4,879,000
Cooperative Agreements	\$0	\$0	\$0	\$0
O&M - Wheeled Vehicles	\$732,000		\$48,000	\$48,000
O&M - Tracked Vehicles	\$1,641,000		\$46,000	\$46,000
O&M - Aircraft	\$0		\$0	\$0
<b>TOTALS</b>	<b>\$29,090,000</b>	<b>\$25,686,000</b>	<b>\$1,125,000</b>	<b>\$26,811,000</b>

Note: FY2014 data for personnel and vehicle inventories and usage. FY2012-14 average costs for O&M facilities.

The next table shows that the 1,530 Guard employees ripple through the economy to create a total of 2,538 full, part-time, or seasonal jobs. The \$25.7 million in labor income grows to \$33.9 million in total labor impacts. The \$26.8 million in economic activity multiplies to \$52.1 million in total economic impacts. Note that the IMPLAN program automatically allows for leakage of economic activity across state borders.

**Table 4-2. Total Economic Impacts of IDARNG Rest-of-Idaho**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	1,530	\$25,686,000	\$26,811,000
<b>Indirect Impacts</b>	183	\$1,938,000	\$6,146,000
<b>Induced Impacts</b>	<u>825</u>	<u>\$6,267,000</u>	<u>\$19,186,000</u>
<b>Total Impacts</b>	<b>2,538</b>	<b>\$33,891,000</b>	<b>\$52,143,000</b>
<b>Multpliers (SAM Type II)</b>	<b>1.66</b>	<b>1.32</b>	<b>1.94</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: Employment includes all full, part-time, and seasonal jobs.

All dollar estimates in 2014 \$.

### **Facilities**

The facilities at Gowen Field and OCTC are by far the largest in the state and soldiers from all over Idaho, as well as many from beyond Idaho, train in the Treasure Valley. However, the Idaho Army National Guard has a statewide presence that is significant in terms of economic impact, assets held, and disaster response capability. This chapter analyzes the Guard's impact across the rest of Idaho.

The Idaho Army National Guard currently has 27 facilities, listed in Table 4-3. There are twenty armories located across Idaho. These armories typically include one or more classrooms, a computer lab, locker room, secured equipment room, exercise room, and a large open bay for training and exercises. A fenced yard with outbuildings to house vehicles and equipment rounds out each facility. Several of the rural armories are co-located with a county fairgrounds. Each region of the state has at least one larger and re-modeled facility. Seven of the armories also have a FMS maintenance shop associated with them, but operating independently. Many of these facilities have been modernized in recent years with incremental improvements from existing budgets.



**Table 4-3. Idaho Army National Guard Facilities in Rest-of-Idaho****Idaho Army National Guard Facilities in Rest-of-Idaho**

<b>Location</b>	<b>Title</b>	<b>Address</b>	<b>Zone</b>
1 Bonners Ferry Armory	Armory	6566 Main St. Bonners Ferry, ID 83805	11
2 Post Falls	FMS 7	5453 E. Seltice Way Post Falls, ID 83854	11
3 Moscow Armory	Armory	1011 Harold St. Moscow, ID 83843	11
4 Orofino Armory	Armory	10210 Highway 12 Box 1461 Orofino ID, 83544	11
5 Lewiston	FMS 1	2707 16th Ave. Lewiston, ID 83501	11
6 Grangeville Armory	Armory	105 NE 4th St. Grangeville, ID 83530	11
7 Payette Armory	Armory	1921 Center Ave. Payette, ID 83661	11
8 Emmette Armory	Armory	2175 S. Johns Ave. Box 368 Emmett, ID 83617	11
9 Wilder Armory	Armory	20675 Gravelly Ln. Wilder, ID 83676	11
10 Caldwell Armory RC	Armory	1200 S. Kimball Caldwell, ID 83605	11
11 Caldwell	FMS 2	700 W Warehouse St. Caldwell, ID 83605	11
12 Nampa	FMSS 2	212 N Kings Rd. Nampa, ID 83687	11
13 Hailey Armory	Armory	704 S 4th St. Box 118 Hailey, ID 83333	11
14 Gooding Armory	Armory	417 N Main St. Gooding, ID 83330	11
15 Jerome	FMS 4	125 2nd Ave. E Jerome, ID 83338	11
16 Jerome Armory	Armory	601 2nd Ave. W Jerome, ID 83338	11
17 Twin Falls Armory	Armory	1069 Frontier Rd. Twin Falls, ID 83301	11
18 Burley Armory	Armory	1059 Airport Way Burley, ID 83318	12
19 Rupert Armory	Armory		12
20 Preston Armory	Armory	594 N State St. Preston, ID 83263	12
21 Pocatello	FMS 5	10714 Fairgrounds Rd. Pocatello, ID 83202	12
22 Blackfoot Armory	Armory	260 Rich Ln. Blackfoot, ID 83221	12
23 Idaho Falls	FMS 6	575 W 21st St. Idaho Falls, ID 83402	12
24 Rigby Armory	Armory	165 W 2nd St. Rigby, ID 83442	12
25 Driggs Armory	Armory	547 N Main St. Driggs, ID 83422	12
26 Rexburg Armory	Armory	330 W 7th S Rexburg, ID 83440	12
27 St. Anthony Armory	Armory	1003 W Main St. Saint Anthony, ID 83445	12

**Personnel**

Table 4-4 summarizes the personnel assigned to these statewide facilities. There are some 76 state or federal technicians who are full-time employees at these facilities. Another nine are federal contract employees. A total of 1,445 military personnel are assigned to these armories, and there are a total of 1,530 full or part-time employees of the Army National Guard posted outside of Ada County.

Note that each armory will have one or more Military Occupation Specialties associated with that unit. In some cases, that MOS may be an elite units like the Calvary Scouts stationed in Caldwell. These elite units may attract Guard soldiers who live far outside the location in North Idaho or even Nevada. Similarly, Idahoans may choose to travel to a neighboring state for their occupational specialty. The study assumes these employees balance on average, as detailed data are not available.

**Table 4-4. Personnel Summary Expenditures – IDARNG Rest-of-Idaho**

Type	Number	Total
State Technician	36	\$2,361,000
Federal Technician	40	\$3,145,000
Federal Contract Employees	9	\$505,000
Military	1,445	
Active Duty Special Work (ADSW) and Active Guard and Reserve (AGR)	96	\$6,864,000
Total Full Time Mobilization Augmentee (FTMA)	0	\$0
Mobilized Traditional Soldier (M-Day Mob)	0	\$0
Traditional Soldier Not Mobilized (M-Day) and Traditional Soldier Active Duty for Training (ADT)	1,349	\$8,963,000
Non-Appropriated Fund Employees (NAFE)	0	
	<b>1,530</b>	<b>\$21,838,000</b>

### Operations & Maintenance

Table 4-5 below details the local expenditures of the Army National Guard to operate and maintain the units and facilities statewide. O&M expenditures averaged nearly \$4.9 million over the last three years. This total cost is just over one-third the O&M costs for Ada County facilities. Building maintenance projects account for the majority of expenses, with \$3.3 million. Utility costs are less than \$400,000, and architect and engineering services averaged \$127,000.

**Table 4-5. Operations & Maintenance Expenditures – Rest-of-Idaho**

Expense	FY 2012-14 Average		
	Total Cost	Labor Costs	Material Costs
Facility Engineering Services	\$286	\$185	\$101
Master Planning	\$623	\$623	
Real Property Services	\$0		
Grounds Services	\$54,997	\$44,839	\$10,157
Janitorial Services	\$9,191	\$2,220	\$6,971
Indoor/Outdoor Pest Control	\$2,862	\$1,724	\$1,138
Refuse Service	\$47,737	\$47,737	
Fire Services	\$2,791	\$2,618	\$173
Leases	\$115,022		\$115,022
Snow Removal	\$6,670	\$6,670	
Replacement Barracks Furniture	\$0		
Milcon Tails	\$59,413		\$59,413
Building Maintenance	\$3,323,808	\$1,661,904	\$1,661,904
Restoration and Modernization Proje	\$752,281	\$250,510	\$501,772
<b>Building O&amp;M Sub Total</b>	<b>\$4,375,682</b>	<b>\$2,019,031</b>	<b>\$2,356,651</b>
	\$0		
A&E Planning & Design Type A	\$117,785	\$117,785	
A&E Supervision, Inspr & Admin	\$8,393	\$8,393	
<b>Planning &amp; Design SubTotal</b>	<b>\$126,178</b>	<b>\$126,178</b>	<b>\$0</b>
	\$0		
Water	\$36,113		\$36,113
Wast Water	\$13,782		\$13,782
Electricity	\$197,203		\$197,203
Natural Gas	\$109,047		\$109,047
Propane/Fuel Oil	\$19,863		\$19,863
Celluar Telephone Service	\$1,481		\$1,481
Chemical Latrines	\$0		
Line Communication Services	\$0		
<b>Utilites Sub Total</b>	<b>\$377,488</b>	<b>\$0</b>	<b>\$377,488</b>
<b>Total Total</b>	<b>\$4,879,348</b>	<b>\$2,145,209</b>	<b>\$2,734,139</b>

**Cooperative Agreements**

There are no cooperative agreements beyond lease arrangements to report.

**Wheeled Vehicle O & M**

Table 4-6 shows in detail the O&M cost of wheeled vehicles in the military fleet for FY2011, updated to 2014 dollars using the GNP Implicit Price Deflator. There are three types of cost in the cost of operating these vehicles. The first column shows the cost of *Petroleum, Oil, and Lubricants* for these military vehicles. Note that these are provided under a national military contract, so that

the only local expenditure is the cost of delivery from a wholesale supplier. The second cost is for *Organizational Repair Parts*, which are the parts used to make local repairs at IDARNG facilities with IDARNG personnel. Again, an estimated 90% of these parts are specific to these vehicles and supplied under military contract from outside the region. The third column in Table 3-6 is for Depot Level Repairs. These larger components are rebuilt outside the region and sent to IDARNG for installation by IDARNG personnel. The total cost per mile of operating these vehicles is surprisingly high compared to civilian vehicles. Note that the costs in Table 3-6 do not include depreciation of the cost of the vehicle itself, or the cost of labor by military mechanics.

The number of vehicles and their average use per year is for FY2014. In total, IDARNG spent \$475,000 on operating a total of 448 wheeled vehicles in FY2014. Of that amount, only \$33,000 can be considered local expenditures.

**Table 4-6. Operations & Maintenance Costs – Wheeled Tactical Vehicles, IDARNG Rest-of-Idaho**

Vehicle	Petroleum Oil & Lubricants CLS III <sup>1</sup>	Org Repair Parts CLS IX <sup>2</sup>	Depot Level Repairs CLS IX <sup>3</sup>	Total Cost Per Mile	Number of Vehicles	Ave Miles per Vehicle <sup>4</sup>	Cost per Vehicle	Total Cost	Local Expenditures
Armored Security Vehi High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	\$3.72	\$0.71	\$2.91	\$7.34	8	160	\$1,173.75	\$9,390	\$329
2 1/2 Ton trucks	\$0.23	\$0.85	\$0.03	\$1.11	239	1,145	\$1,270.14	\$303,563	\$26,347
5 Ton Trucks	\$0.39	\$0.96	\$0.23	\$1.58	46	1,160	\$1,833.05	\$84,320	\$6,170
Light Equipment Transport (14T) Medium Equipment Transport (MET) 20T	\$0.62	\$0.41	\$0.31	\$1.34	93	600	\$803.71	\$74,745	\$4,000
Heavy Equipment Transport (HET) Heavy Expanded Mobile Tactical Truck (HEMTT) series	\$0.59	\$0.25	\$0.24	\$1.08	6	900	\$970.11	\$5,821	\$294
Fuel Truck	\$0.62	\$0.41	\$0.31	\$1.34	0	16,986	\$22,753.09	\$0	\$0
Wrecker	\$1.11	\$8.57	\$0.60	\$10.28	0	325	\$3,339.90	\$0	\$0
Dump Truck	\$1.04	\$0.99	\$1.36	\$3.39	121	620	\$2,102.21	\$254,367	\$11,344
ENG MISC	\$0.62	\$0.41	\$0.31	\$1.34	21	1,160	\$1,553.84	\$32,631	\$1,746
Forklift	\$0.39	\$0.45	\$1.90	\$2.74	8	1,350	\$3,701.47	\$29,612	\$695
	\$0.62	\$0.41	\$0.31	\$1.34	16	1,100	\$1,473.47	\$23,576	\$1,262
	\$1.11	\$8.57	\$0.60	\$10.28	46	185	\$1,901.18	\$87,454	\$7,766
	\$0.23	\$0.85	\$0.03	\$1.11	11	80	\$88.74	\$976	\$85
<b>TOTALS</b>					<b>615</b>			<b>\$732,206</b>	<b>\$48,485</b>

Notes

- Petroleum, Oil & Lubricants Nearly all through the Defense Logistic Agency. Assume 5% local trucking/delivery cost.
- Organizational repair parts - brakes, track, parts replaced by local mechanics. Estimate 10% local parts & 90% through military channels.
- Depot Level repairable - Engines, transmissions, differentials. Major components rebuilt at depots 100% off site military facilities.
- Estimates based on budgeting factors and FY2014 data. Costs updated to 2014 \$ by GNP implicit deflator.
- Actual miles vary greatly due to deployments and training cycles

## Tracked Vehicle O & M

Tracked vehicles are much more expensive to operate, but they are important component of training. Cost per mile ranges from \$8.85 per mile for personnel carriers to \$331.88 per mile for a tank retriever. Table 3-7 lists the costs of operating and maintaining the 120 tracked vehicles at IDARNG facilities across Idaho, but outside of Ada County. In total these costs were estimated for FY2014 to be \$1,641,000, of which \$46,000 is estimated to have been spent locally. It is important to note that for all vehicles and aircraft, the amount of use will vary from year to year.

**Table 4-7. Operations & Maintenance Costs – Tracked Vehicles, IDARNG Rest-of-Idaho**

### Operation & Maintenance Costs - Tracked vehicles, IDARNG in Rest-of-Idaho

Vehicle	Petroleum	Org Repair	Depot	Total	Number	Ave	Cost per	Total Cost	Local
	Oil & Lubricants	Parts	Level Repairs	Cost Per Mile <sup>4</sup>		Miles per Vehicle <sup>4</sup>			
	CLS III <sup>1</sup>	CLS IX <sup>2</sup>	CLS IX <sup>3</sup>		of Vehicles				Expenditures
	per mile	per mile	per mile						
Personnel and Equipment Carriers	\$0.92	\$6.33	\$1.60	\$8.85	27	180	\$1,594	\$43,027	\$3,301
Artillery and Support Tracks	\$2.85	\$27.43	\$38.07	\$68.35	32	84	\$5,741	\$183,717	\$7,755
Bradley series	\$2.91	\$34.58	\$104.49	\$141.98	43	210	\$29,816	\$1,282,067	\$32,536
Tank Retrievers	\$4.96	\$47.89	\$279.03	\$331.88	6	50	\$16,594	\$99,563	\$1,511
M1 series tanks	\$19.10	\$126.04	\$127.41	\$272.55	0	150	\$40,883	\$0	\$0
Bulldozers	\$2.85	\$27.43	\$38.07	\$68.35	12	40	\$2,734	\$32,807	\$1,385
<b>TOTALS</b>					<b>120</b>			<b>\$1,641,181</b>	<b>\$46,488</b>

Notes:

1. Petroleum, Oil & Lubricants all purchased through the Defense Logistic Agency. Assume 5% local trucking/delivery cost.
2. Organizational repair parts - brakes, track, parts replaced by local mechanics. Estimated 10% local parts & 90% through military channels.
3. Depot Level Repairable - Engines, transmissions, differentials. Major components rebuilt at depots 100% off site military facilities.
4. Mileage estimates based on budgeting factors and FY2014 data, costs adjusted to FY2014 by GNP implicit price deflator.
5. Actual miles vary greatly due to deployments and training cycles

## Army Guard Aircraft O&M

There are no Army Guard aircraft in Idaho stationed outside of Gowen Field.

## Chapter 5: Idaho Air National Guard Impacts

### Summary

The direct economic impacts of the Idaho Air Guard of nearly \$79 million per year were estimated using FY2014 data for personnel and for training and visiting unit expenditures. Cooperative agreements, O&M, and fuel expenses were based on a three-year average for FY2012-14 to smooth annual variations. Local expenditures were parsed out of total costs based on spending patterns and the experienced judgments of Guard purchasing agents and the authors.

The direct impacts are summarized in the table below in the following categories:

- Personnel – Salaries, allowances, and benefits of 1,388 Air Guard personnel who may be state technicians, federal technicians or contract employees, or any of four military employee categories. All benefits are assumed to be spent within Idaho.
- Cooperative Agreements – Several agreements made with the Idaho Military Division to provide needed services.
- Operations & Maintenance – Payments to the Boise Airport under the joint use agreement, grounds and janitorial services, all maintenance and restoration project costs, utilities, and on-going information technology purchases.
- Training Expenses – Lodging, meal, supplies, and contracting costs of Air Guard training exercises.
- Vehicle Maintenance – Purchases of local parts & lubricants with government purchase cards and delivery costs of federally-contracted parts.
- Fuel – The delivery costs associated with aviation fuel, diesel and unleaded gasoline purchases.
- Visiting Unit Expenditures – Lodging, per diem, and personal expenditures by units visiting from outside Idaho.

**Table 5-1. Idaho Air Guard Direct Economic Impacts**

Category	Total Expenditures	Labor	Materials	Total Direct Impact
Personnel Salary, Allowances, & Benefits	\$72,807,000	\$72,807,000		\$72,807,000
Cooperative Agreements	\$1,135,000	\$166,000	\$969,000	\$1,135,000
Operations & Maintenance	\$3,942,000	\$389,000	\$3,522,000	\$3,942,000
Training Expenses	\$236,000		\$236,000	\$236,000
Vehicle Maintenance	\$93,000		\$70,000	\$70,000
Fuel	\$11,915,000		\$596,000	\$596,000
Visiting Unit Expenditures	\$356,000		\$356,000	\$356,000
<b>TOTAL</b>	<b>\$90,484,000</b>	<b>\$73,362,000</b>	<b>\$5,749,000</b>	<b>\$79,142,000</b>

These direct economic impacts were then fed into an input-output economic model called IMPLAN. The model generates indirect and induced impacts within the State of Idaho that are consequences of the direct impacts.

*Indirect impacts* are those purchases of goods or services by businesses that provide goods or services to the National Guard, or who use National Guard services. *Induced impacts* are changes generated in the economy by employees who spend their wages on goods and services.

**Table 5-2. Air Guard Total Economic Impacts**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
Direct Impacts	1,388	\$73,361,000	\$79,142,000
Indirect Impacts	652	\$22,244,000	\$38,351,000
Induced Impacts	761	\$40,422,000	\$37,861,000
<b>Total Effect</b>	<b>2,801</b>	<b>\$136,027,000</b>	<b>\$155,354,000</b>
Multpliers (SAM Type II)	2.02	1.85	1.96

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

For the Idaho Air Guard, the 1,388 jobs generated directly lead, in turn, to 652 indirect and 761 induced jobs. Thus, the total number of full, part-time, or seasonal jobs that are created by the presence of the Idaho Air Guard is 2,801.

Similarly, those 1,388 direct jobs generate a total of \$73.4 million in compensation, or labor income. That direct effect leads to an additional \$22.2 million in indirect, and \$40.4 in induced labor income, for a total labor income impact of \$136.0 million.

Finally, the \$79.1 million of economic activity is generated directly by the Idaho Air Guard. This causes \$38.4 million in indirect economic output and \$37.9 million in induced economic output for a total impact on economic output of \$155.4 million.

Lastly, the Idaho Division of Financial Management estimated that 5.0% of total personal income becomes some form of state tax revenue (Ferguson, 2015). Applying this rule of thumb to the total labor income impact of \$136.0 million yields a conservative estimate of \$6.8 million in state tax revenues generated by the presence of the Idaho Air Guard. This is a minimum estimate because there will be taxable purchases generated by businesses serving the Guard, as well as corporate income taxes paid by these businesses that are not included in this estimate.

## ESTIMATING THE DIRECT IMPACTS OF THE IDAHO AIR GUARD

Direct impacts are the economic activities that flow from a business or project. In the case of the Idaho Air National Guard, the business is providing for our public interests in national and domestic security, with a secondary mission in emergency response. The direct impacts are best measured through the economic transactions made with the regional economy. Six types of direct impacts can be examined for the IDANG:

- 1) Personnel
- 2) Operations & Maintenance
- 3) Vehicle Operations & Maintenance
- 4) Fuel
- 5) Training Expenditures
- 6) Visiting Unit Expenditures

### Personnel

As with the Idaho Army National Guard, the number of full and part-time employees is larger than generally perceived, because employees are categorized in several different ways and paid from different budget sources. The Air Guard uses seven of the Army's ten categories of employee. The table below summarizes the number and cost of Idaho Air Guard personnel. All are based at Gowen Field, though some use the base and range facilities at Mountain Home.

**Table 5-3. FY2014 Combined Air Guard Personnel Budget**

Type	Number of Employees	Wages, Allowances, & Benefits
State Technician	64	\$4,117,000
Federal Technician	269	\$22,315,000
Federal Contract Employees	6	\$336,812
<b>Military Sub-Total</b>	<b>1,049</b>	
Active Guard and Reserve (AGR)	272	\$22,874,000
Substance Abuse (ADOS)	4	\$291,500
Mobilized Traditional Members ( Mob'd)	8	\$1,232,300
Traditional Members	765	\$20,404,375
	<b>1,388</b>	<b>\$71,570,987</b>
<b>Incentive Payouts</b>		
(Bonus & Student Loans, FY12-14 Ave)		\$1,235,717
<b>Total Personnel Costs</b>		<b>\$72,806,704</b>

Note:

- 1) Expenditures expressed in 2014 \$
- 2) Fed Contract Employee wage is average of federal technicians



Here is a brief description of each of the seven types of employees at the Idaho Air National Guard:

**State Technician** – These are permanent state employees of the Military Division of the Governor’s Office whose pay and allowances are 100% federally reimbursed by the Department of Defense through National Guard Bureau. Most employees are *dual status* in that they are also required to be members of the Idaho National Guard.

**Federal Technician** – These are permanent, indefinite, or temporary federal civilian employees of the U.S. Department of Defense on the general service pay schedule. Most are *dual status* in that they are also required to be members of the Idaho National Guard.

**Federal Contract Employees** – These are employees of federal contract firms, typically supplying support to some piece of military equipment, software or providing some specialized training.

### **Military**

**Active Guard and Reserve (AGR)** - These are full time National Guard members responsible for the day to day administrative, supply, and training preparation duties of the military units. Their pay and allowances are the same as active duty soldiers.

**Substance Abuse (ADOS)** – These are full-time substance abuse counselors working with the members.

**Mobilized Traditional Members (Mob’d)** – These are National Guard members who have been mobilized and deployed on active duty. Their pay is shifted to the federal US Air Force and Department of Defense. They receive housing and subsistence allowances in addition to salary.

**Traditional Members** – These are your typical National Guard members, living in the community and doing training one weekend a month, two weeks of annual training (summer camp) and additional training, work details, and when needed emergency state and community disaster duty.

### **Cooperative Agreements**

The Idaho Air Guard has also entered into several cooperative agreements with the State of Idaho. These include agreements for FOMA, Fire, Security, environmental, and family support. While the personnel working under these agreements are already included in the personnel table above, Table 5-4 below represents other expenses associated with executing these cooperative agreements. These operating expenses averaged \$1.14 million over 20012-2014.

Table 5-4. Air Cooperative Agreements

Expense Category	2012-14 Ave	% Labor	Local Labor Cost	% Materials	Local Materials Cost
Communication Cost	\$866			100%	\$866
Emp Development Costs	\$35,656	50%	\$17,828	50%	\$17,828
Emp Travel Costs	\$31,239			100%	\$31,239
General Services	\$6,167	100%	\$6,167		
Professional Services	\$58,341	100%	\$58,341		
Repair & Maint Serv	\$137,870	50%	\$68,935	50%	\$68,935
Fuel & Lubricants	\$2,534			100%	\$2,534
Computer Supplies	\$78,085			100%	\$78,085
Rep & Maint Supplies	\$112,200			100%	\$112,200
Other Supplies	\$25,323			100%	\$25,323
Utility Charges	\$487,786			100%	\$487,786
Rentals & Oper Leases	\$113,631			100%	\$113,631
Computer Equipment	\$8,183			100%	\$8,183
Other Equipment	\$7,792			100%	\$7,792
Misc Expenditures	<u>\$29,713</u>	50%	<u>\$14,856</u>	50%	<u>\$14,856</u>
	<b>\$1,135,385</b>		<b>\$166,127</b>		<b>\$969,258</b>

## Notes:

General Services = General +Admin+Computer services

Other Supplies = Inst & Resident, Specific Use, and Admin supplies

Other Equipment = Motorized-Nonmotorized, Office, and Specific Use equipment

### Operations and Maintenance

It costs \$3,942,000 to operate and maintain the facilities of the Idaho Air Guard at Gowen Field, based on the average of the last three years. The vast majority (99.2%) is spent within Idaho, though things like most IT equipment are not manufactured here. Nearly 90% is spent on materials and services, with Guard members providing much of the labor. Janitorial labor is the exception. Utility services and routine IT equipment purchases cost roughly \$1.8 million per year.

The Air Guard pays about \$95,000 to the Boise Airport for its annual lease of a portion of the runways. There are some 62 buildings comprising a total of 566,000 square feet to be maintained. While the Air Guard has not engaged in the major construction that the Army Guard has done, it still expends about \$1.5 million per year on sustainment and restoration projects.

**Table 5-5. IDANG Facilities Operations & Maintenance Budget**

Service	Total Cost	% Labor	Local Labor Cost	% Materials	Local Materials Cost
Airport Joint Use Agreement	\$94,540	0.0%	\$0	100.0%	\$94,540
Grounds Services	\$37,759	100.0%	\$37,759	0.0%	\$0
Janitorial Services	\$248,356	100.0%	\$248,356	0.0%	\$0
Janitorial Supplies	\$13,373	0.0%	\$0	100.0%	\$13,373
Janitorial Contracts	\$11,472	50.0%	\$5,736	50.0%	\$5,736
Indoor Pest Control	\$22,999	85.0%	\$19,549	15.0%	\$3,450
Refuse Service	\$10,348	50.0%	\$5,174	50.0%	\$5,174
Building Maintenance Supplies	\$22,225	0.0%	\$0	100.0%	\$22,225
Building Maintenance Services	\$16,743	75.0%	\$12,557	25.0%	\$4,186
Maintenance and Repair	\$47,433	50.0%	\$23,716	50.0%	\$23,716
Minor Construction (Small Project)	\$150,117	0.0%	\$0	100.0%	\$150,117
<b>Building O&amp;M Sub-Total</b>	<b>\$675,364</b>		<b>\$352,847</b>		<b>\$322,517</b>
Facility Sustainment Projects	\$549,903	0.0%	\$0	100.0%	\$549,903
Facility Restoration Projects	\$921,846	0.0%	\$0	100.0%	\$921,846
Facility Restoration Design	\$35,775	100.0%	\$35,775	0.0%	\$0
<b>Sustainment, Restoration, and Maintenance Sub-Total</b>	<b>\$1,507,524</b>		<b>\$35,775</b>		<b>\$1,471,749</b>
Water	\$51,645	0.0%	\$0	100.0%	\$51,645
Waste Water	\$5,020	0.0%	\$0	100.0%	\$5,020
Electricity	\$325,811	0.0%	\$0	100.0%	\$325,811
Natural Gas	\$105,536	0.0%	\$0	100.0%	\$105,536
Cellular Telephone Service	\$42,256	0.0%	\$0	100.0%	\$42,256
Line Communication Services	\$758,347	0.0%	\$0	100.0%	\$758,347
Local Telephone Services	\$16,429	0.0%	\$0	100.0%	\$16,429
DISA Services	\$9,604	0.0%	\$0	100.0%	\$9,604
IT Purchases					
Government Purchase Card	\$88,349	0.0%	\$0	100.0%	\$57,427
Fighter Wing Contracts	\$143,769	0.0%	\$0	100.0%	\$143,769
Range Squadron - Mt Home	\$211,850	0.0%	\$0	100.0%	\$211,850
<b>Utilities Sub-Total</b>	<b>\$1,758,615</b>		<b>\$0</b>		<b>\$1,727,693</b>
<b>TOTAL</b>	<b>\$3,941,503</b>		<b>\$388,623</b>		<b>\$3,521,959</b>

Notes:

1) Based on 3-Year average of 2012, 2013, & 2014 IDANG expenditure data.

## Vehicle Operations & Maintenance

This category includes the upkeep of 21 A10s associated with the 190<sup>th</sup> Flight Squadron and some 306 wheeled vehicles. Clearly most aircraft parts are imported to the Idaho economy, but Table 5-6 outlines those acquired locally with government purchase cards, and the delivery fee associated with supplying stock parts. Local impacts totaled \$70,200 on average over the last three years.

**Table 5-6. 124<sup>th</sup> FW Vehicle Maintenance Costs**

	FY 12-14 Average		
	Transactions/ Items	Total Cost	Local Impact
Government Purchase Card	504	\$75,332	\$69,305
Supply/National Stock Numbered Items	100	<u>\$17,837</u>	<u>\$892</u>
<b>TOTAL</b>		<b>\$93,169</b>	<b>\$70,197</b>

Notes: 1) Assumes 8% of GPC transactions occur out-of-state.

2) Assumes 5% of cost of Supply/National Stock Numbered items  
(Defense Logistic) goes to local margin for delivery.

In addition, the delivery cost associated with all fuel costs must be considered. Aviation fuel is supplied by Western Aircraft in Boise. The figures in Table 5-7 include fuel used by transient federal planes, such as Air Force One, as well as normal fuel used by the Air Guard fleet. The numbers in this table are three year averages combined with the 2014 price of fuel. The delivery margin is assumed to be five percent of the cost. Clearly, price has declined in 2015, and will always fluctuate with market conditions. Fuel costs averaged \$11.9 million, with an estimated \$596,000 as local impacts.

**Table 5-7. Fuel Expenditures**

	FY 12-14 Average (gal)	2014 Price (per gallon)	Total Fuel Expenditure	Local Expenditures
Aviation Fuel	3,158,545	\$3.68	\$11,623,446	\$581,172
Ground Fuel	81,184			
Diesel	44,651	\$3.57	\$159,405	\$7,970
Unleaded Gasoline	36,533	\$3.61	<u>\$131,884</u>	<u>\$6,594</u>
<b>TOTAL</b>			<b>\$11,914,735</b>	<b>\$595,737</b>

Notes:

- 1) Fuel consumption average of FY 2012-FY2014
- 2) Price is average for calendar year 2014
- 3) Ground fuel is split between 55% diesel and 45% unleaded gas, based on CY 2014 deliveries.
- 3) Local direct impacts are local delivery margin of the federal fuel contract, estimated to be 5%.

## Training Expenditures

Air Guard members coming for their training duties are fed and housed at Guard expense. The cost of meals and lodging are summarized in Table 5-8 as the average of the last three years. These costs total nearly \$236,000, including the cost of training in fire suppression techniques.

**Table 5-8. Idaho Air Guard Weekend Training Costs**

<b>FY 12-14 Average</b>	<b>Meals</b>	<b>Lodging</b>	<b>Supplies</b>	<b>Contractors</b>	<b>Total</b>
Customers	12338	537			
Spent	\$68,958	\$71,789	\$13,112	\$48,733	\$202,592

Fire Supression MCA Supply/Training \$33,300

**TOTAL LOCAL TRAINING EXPENDITURES** **\$235,892**

## Visiting Unit Expenditures

The last element of direct impacts caused by the presence of the Idaho Air Guard is the expenditures made by aviation units visiting Gowen Field for training exercises. The four units listed in Table 5-9 make regular trips to Idaho. Lodging and per diem are based on Idaho Air Guard actual costs. Personal spending by visiting crew are conservatively estimated to be \$15 per day. Visiting units create a direct impact of \$356,000 per year.

**Table 5-9. Visiting Unit Expenditures**

<b>Unit</b>	<b>Trips Per Year</b>	<b>Length of Trip</b>	<b>Personnel</b>	<b>Cost of Lodging</b>	<b>Cost of Per Diem</b>	<b>Personal Expenditures</b>	<b>Total Local Expenditures</b>
305th Rescue Squadron	1	14	22	\$25,564	\$12,628	\$4,620	\$42,812
34th Weapons School, Nellis	2	17	19	\$53,618	\$26,486	\$9,690	\$89,794
Singapore Air Force	1	21	58	\$101,094	\$49,938	\$18,270	\$169,302
NATO AWACS	1	14	28	\$32,536	\$16,072	\$5,880	\$54,488
<b>TOTAL</b>							<b>\$356,396</b>

### Total Direct Impacts of the Idaho Air Guard

The direct impacts of the presence of the National Air Guard in Idaho can now be summarized in Table 5-10. The six types of direct impacts have a total of nearly \$75.0 million in 2014 dollars per year. The difference between the \$86.3 million in total expenditures and the \$75.0 million in direct impacts is spending that accrues out-of-state. The vast majority of direct impacts, 93.6%, is from expenditures for wages and benefits.

**Table 5-10. Idaho Air Guard Direct Economic Impacts**

Category	Total Expenditures	Labor	Materials	Total Direct Impact
Personnel Salary, Allowances, & Benefits	\$69,775,651	\$69,775,651		\$69,775,651
Operations & Maintenance	\$3,941,503	\$388,623	\$3,521,959	\$3,941,503
Training Expenses	\$235,892		\$235,892	\$235,892
Vehicle Maintenance	\$93,169		\$70,197	\$70,197
Fuel	\$11,914,735		\$595,737	\$595,737
Visiting Unit Expenditures	<u>\$356,396</u>		<u>\$356,396</u>	<u>\$356,396</u>
<b>TOTAL</b>	<b>\$86,317,346</b>	<b>\$70,164,273</b>	<b>\$4,780,181</b>	<b>\$74,975,376</b>

### INDIRECT, INDUCED & TOTAL IMPACTS

For the Idaho Air Guard, the 1,388 jobs generated directly lead, in turn, to 654 indirect and 765 induced jobs. Thus, the total number of full, part-time, or seasonal jobs that are created by the presence of the Idaho Air Guard is 2,807. Although a large portion of the Air Guard jobs are part-time, this still means the Air Guard is a major employer within the Treasure Valley and Idaho. Similarly, those 1,388 direct jobs generate a total of \$70.2 million in compensation, or labor income. That direct effect leads to an additional \$21.3 million in indirect, and \$38.7 in induced labor income, for a total labor income impact of \$130.1 million.

Finally, the \$75.0 million of economic activity is generated directly by the Idaho Air Guard. This causes \$36.3 million in indirect economic output and \$35.9 million in induced economic output for a total impact on economic output of \$147.2 million.

Three multipliers can be imputed from these impacts. The Idaho Air Guard has an employment multiplier of 2.02, meaning that for each job created directly by the Air Guard another 1.02 jobs are created by indirect and induced impacts. The labor income multiplier is 1.85 and the economic output multiplier is 1.96. In rough terms each dollar spent by the Air Guard generates another dollar in impacts to the Idaho economy as it ripples through successive rounds of spending.

**Table 5-11. Idaho Air Guard Total Economic Impacts**

Impact Type	Employment	Labor Income	Output
Direct Impacts	1,388	\$70,164,273	\$74,975,376
Indirect Impacts	654	\$21,274,227	\$36,331,661
Induced Impacts	765	\$38,660,928	\$35,867,536
<b>Total Effect</b>	<b>2,807</b>	<b>\$130,099,428</b>	<b>\$147,174,574</b>
<b>Multpliers (SAM Type II)</b>	2.02	1.85	1.96

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho

Labor Income and Output expressed in 2014 \$.

### Fiscal Impacts

Lastly, the Idaho Division of Financial Management estimated that 5.0% of total personal income becomes some form of state tax revenue (Ferguson, 2015)<sup>1</sup>. Applying this rule of thumb to the total labor income impact of \$130.1 million yields a conservative estimate of \$6.5 million in state tax revenues of all types generated by the presence of the Idaho Air Guard. This is a minimum estimate because there will be taxable purchases generated by businesses serving the Guard, as well as corporate income taxes paid by these businesses that are not included in this estimate.

### Asset Values

While it has no bearing on the direct impacts of the Air Guard, The value of the organization's assets can be calculated. This data comes from the US General Services Administration. The property value of the improvements made to the 354 acres of land leased at Gowen Field are composed of 62 buildings with an estimated value of \$57.3 million. Information technology adds another \$5.7 million, and 306 wheeled vehicles have a total value of \$16.2 million. The aircraft and weapons systems account for the great majority of assets at \$247.6 million. The total assets of the Idaho Air Guard are estimated to be \$326.9 million, again documenting the significant economic footprint of this unit of the national security system.

**Table 5-12. Idaho Air Guard Asset Values**

Asset	Value
Real Property	\$57,317,000
Information Technology	
IT Equipment	\$4,293,000
Personnel Wireless Communication System Equipment	\$1,456,000
Weapons Systems	
Aircraft	\$245,941,600
Small Weapons	\$1,697,000
All wheeled vehicles	<u>\$16,200,000</u>
<b>TOTAL ASSET VALUE</b>	<b>\$326,904,600</b>

Source: U.S. General Services Administration

<sup>1</sup> Note that this Idaho tax impact has decreased from 5.5% to 5% over the last six years due to an estimated \$500 million in recently legislated tax cuts. Simply put, the tax burden on economic activity in Idaho has been lessened.

## Chapter 6: Economic Impacts of the Idaho Military Division

### Chapter Summary

The direct impacts of the Idaho Military Division total over \$24.0 million. Nearly two-thirds of these expenditures are for labor within the Idaho economy, including the 83 estate employees within the Division. Some \$8.3 million was expended on materials sourced within the Idaho economy, but often not manufactured here.

**Table 6-1. Idaho Military Division Direct Economic Impacts**

Category	Total Expenditures	Labor	Materials	Total Direct Impact
Personnel Salary & Benefits	\$6,641,779	\$6,641,779		\$6,641,779
Military Mgt Operations & Maintenance	\$494,957	\$161,057	\$333,900	\$494,957
Bureau of Homeland Security O & M	\$2,695,032	\$984,716	\$1,710,317	\$2,695,032
Public Safety Communications O & M	\$1,032,734	\$214,260	\$818,474	\$1,032,734
Grant Programs	<u>\$13,879,893</u>	<u>\$7,719,277</u>	<u>\$5,447,222</u>	<u>\$13,166,499</u>
<b>TOTAL</b>	<b>\$24,744,396</b>	<b>\$15,721,090</b>	<b>\$8,309,912</b>	<b>\$24,031,002</b>

When these direct impacts are fed into the Idaho IMPLAN model, the indirect and induced impacts within the Idaho economy are estimated (Table 6-2). The entire Idaho Military Division creates total employment impacts of 547 full, part-time or seasonal jobs. It places a total of \$22.6 million in labor income and \$43.9 million of economic output into the Idaho economy. A rough estimate is that the activities of IMD place \$1,131,000 of all types of tax dollars into state government coffers. The multipliers mean that for every job created directly by the Idaho Military Division, there is another 0.58 jobs created elsewhere in the economy as a result. For every dollar of labor income paid to those employees, another 44 cents is generated in Idaho. For every dollar of economic activity created directly by IMD, another 77 cents is created by the multiplier effect. While these multipliers may seem low to the lay person, they are within normal ranges.

**Table 6-2. Idaho Military Division Total Economic Impacts**

Impact Type	Employment	Labor Income	Output
Direct Impacts	346	\$15,721,000	\$24,031,000
Indirect Impacts	68	\$2,752,000	\$6,246,000
Induced Impacts	<u>133</u>	<u>\$4,149,000</u>	<u>\$12,979,000</u>
<b>Total Effect</b>	<b>547</b>	<b>\$22,622,000</b>	<b>\$43,256,000</b>
<b>Multipliers (SAM Type II)</b>	1.58	1.44	1.80

Source: IMPLAN, 2013 data

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.



These total impacts can be re-arranged to reflect the total impacts of each of the four IMD programs. These are reflected in Table 6-3. Though IMD only has 83 state employees directly hired, its grants support 308 local homeland security employees, contractors, and trainers. Note the total impacts of Table 6-3 match those in Table 6-2.

**Table 6-3. Idaho Military Division Total Economic Impacts by Program**

Program	Total Impacts on Employment	Total Impacts on Labor Income	Total Impacts on Economic Output
Military Management	51	\$2,697,940	\$3,923,084
Bureau of Homeland Security	126	\$6,784,554	\$11,334,024
Public Safety Communications	62	\$3,235,506	\$5,396,892
Grant Programs	<u>308</u>	<u>\$9,904,000</u>	<u>\$22,602,000</u>
<b>Total Effect</b>	<b>547</b>	<b>\$22,622,000</b>	<b>\$43,256,000</b>
<b>Multpliers (SAM Type II)</b>			

Source: IMPLAN, 2013 data

Notes: Program impacts include personnel and Operations and Management direct impacts  
 Employment includes all full, part-time, and seasonal jobs in Idaho  
 Labor Income and Output expressed in 2014 \$.

## IMPACTS OF THE IDAHO MILITARY DIVISION

Direct impacts are the economic activities that flow from a business or project. The Idaho military Division provides an administrative home for the National Guard and the Bureau of Homeland Security within Idaho state government. It also is responsible for operating the Public Safety Communications system and the Idaho Emergency Communication Commission (E-911). IMD also maintains a number of cooperative agreements between Idaho and the federal National Guard, but these were reported as part of the Air and Army Guard impacts. The direct impacts are best measured through the economic transactions made with the state economy. Three types of direct impacts can be examined for the IMD:

1. Personnel
2. Operations & Maintenance
3. Grants to Local Units of Government

### Personnel

A total of 83 people work for the Idaho Military Division. A majority of 66 persons are based in Ada County at Gowen Field, and 17 work elsewhere in Idaho. Here is a bit more about this unusual state agency, whose head is the Adjutant General, who reports to the Governor:

1. **Military Management:** This is a small group of 19 employees entirely based at Gowen Field. They provide administrative oversight to the National Guard and the other IMD programs, including human resource services and financial management. This program also manages the federal/state cooperative agreements with the Army and Air Guard in Idaho. These agreements help operate and maintain the Gowen Field and OCTC training complexes, the 25 readiness centers and the nine maintenance shops statewide
2. **Bureau of Homeland Security:** This agency largely federally-funded program develops and maintains a statewide disaster preparedness master plan. BHS works with local government units to train on disaster response and recovery. It also manages two grant programs. One is federal funds to counties, cities, tribes and local first responders to pay for payroll, equipment, supplies, and training. In this way Idaho has a system of regional response teams ready for any disaster. The second program is the Emergency Communications Commission (E-911) grant program. This is funded by the \$1.00 monthly fee paid on cell phone service contracts. It pays for equipment and services to maintain a consolidated statewide emergency communications system. There are 41 employees in BHS statewide, with 34 based in Ada County.
3. **Public Safety Communications:** The mission of the PSC is to provide interoperable communications capabilities between systems and jurisdictions across the state. It manages provider services and maintains the state microwave system. It also keeps an inventory of all communication equipment and ensures that the equipment is standardized to work in all conditions. The PSC program employs 23 people evenly split between Ada County and the rest of Idaho.

**Table 6-4. Idaho Military Division Personnel Summary**

	<u>Ada County</u>		<u>Rest-of-Idaho</u>		<u>IDAHO TOTAL</u>	
	Number of Employees	Salary & Benefits	Number of Employees	Salary & Benefits	Number of Employees	Salary & Benefits
Military Management	19	\$1,629,043	-	\$0	19	\$1,629,043
Bureau of Homeland Security	34	\$2,497,840	7	\$694,596	41	\$3,192,436
Public Safety Communications	13	\$943,293	10	\$877,008	23	\$1,820,301
<b>IMD Total</b>	<b>66</b>	<b>\$5,070,175</b>	<b>17</b>	<b>\$1,571,604</b>	<b>83</b>	<b>\$6,641,779</b>

The total economic impacts of the IMD personnel are displayed in Table 6-5. The 83 direct hires are multiplied just more than twice for total employment impacts of 168 jobs. Total labor income amounts to \$10.6 million, with \$13.3 million in total economic output.

**Table 6-5. Total Economic Impacts of Idaho Military Division Personnel**

Impact Type	Employment	Labor Income	Output
Direct Impacts	83	\$6,642,000	\$6,642,000
Indirect Impacts	39	\$2,009,000	\$2,954,000
Induced Impacts	46	\$1,964,000	\$3,680,000
<b>Total Effect</b>	<b>168</b>	<b>\$10,615,000</b>	<b>\$13,276,000</b>
<b>Multipliers (SAM Type II)</b>	2.02	1.60	2.00

Source: IMPLAN, 2013 data

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

### Operations and Maintenance (O&M)

Military Management: Each of the three programs within the Idaho Military Division have operations and maintenance costs that are most easily reported separately. Military Management has an operating budget of nearly half a million dollars. One-third of that amount is comprised of local labor and two-thirds is comprised of materials or utility services.

**Table 6-6. Military Management Operations & Maintenance Expenditures**

Expense Category	2012-2014 Average	% Labor		% Materials		Local Materials Cost
		Labor	Local Labor Cost	Materials	Local Materials Cost	
Communication Cost	\$15,998			100%		\$15,998
Emp Development Costs	\$5,480	50%	\$2,740	50%		\$2,740
Emp Travel Costs	\$15,267			100%		\$15,267
General Services	\$27,863	100%	\$27,863			
Professional Services	\$21,228	100%	\$21,228			
Repair & Maint Serv	\$95,345	50%	\$47,673	50%		\$47,673
Fuel & Lubricants	\$2,187			100%		\$2,187
Computer Supplies	\$12,608			100%		\$12,608
Rep & Maint Supplies	\$17,199			100%		\$17,199
Other Supplies	\$24,325			100%		\$24,325
Insurance	\$68,088			100%		\$68,088
Utility Charges	\$17,931			100%		\$17,931
Rentals & Oper Leases	\$4,798			100%		\$4,798
Bldg Improvements	\$1,667			100%		\$1,667
Computer Equipment	\$12,407			100%		\$12,407
Other Equipment	\$29,458			100%		\$29,458
Misc Expenditures	\$123,105	50%	\$61,553	50%		\$61,553
<b>Military Mgt Total</b>	<b>\$494,957</b>		<b>\$161,057</b>			<b>\$333,900</b>

Notes:

General Services = General +Admin+Computer services

Other Supplies = Inst & Resident, Specific Use, and Admin supplies

Other Equipment = Motorized-Nonmotorized, Office, and Specific Use equipment

Misc Expenditures = Misc expenditures + Mfg & Merch costs

Fed into the IMPLAN program for Idaho, Table 6-7 shows the direct, indirect, and induced impacts of the Military Management program. Total economic impacts of the military Management O & M expenditures are 13 jobs, \$268,000 in labor income and \$884,000 in economic output.

**Table 6-7. Total Economic Impacts of IMD Military Management Program**

Impact Type	Employment	Labor Income	Output
Direct Impacts	5	\$161,000	\$495,000
Indirect Impacts	4	\$57,000	\$214,000
Induced Impacts	4	\$50,000	\$175,000
<b>Total Effect</b>	<b>13</b>	<b>\$268,000</b>	<b>\$884,000</b>
<b>Multpliers (SAM Type II)</b>	2.60	1.66	1.79

Source: IMPLAN, 2013 data

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

Bureau of Homeland Security: In contrast, the Bureau of Homeland Security has an operations budget that averages nearly \$2.7 million. Of that, \$1.7 million is comprised of materials and nearly a million dollars is in local labor. The large spending on Other Equipment is mainly Specific Use equipment related to the disaster relief and recovery function of BHS. This is why Communications Costs and Professional Services are high as well. This study assumes all purchases are sourced locally, though the items may not be made inside Idaho.

**Table 6-8. Idaho Bureau of Homeland Security O & M Expenditures**

Expense Category	2012 - 2014 Average	% Labor	Local Labor Cost	% Materials	Local Materials Cost
Communication Cost	\$281,375			100%	\$281,375
Emp Travel Costs	\$111,863			100%	\$111,863
Emp Development Costs	\$25,286	50%	\$12,643	50%	\$12,643
General Services	\$478,333	100%	\$478,333		
Professional Services	\$347,111	100%	\$347,111		
Repair & Maint Serv	\$93,718	50%	\$46,859	50%	\$46,859
Fuel & Lubricants	\$23,380			100%	\$23,380
Computer Supplies	\$201,357			100%	\$201,357
Rep & Maint Supplies	\$10,888			100%	\$10,888
Other Supplies	\$111,063			100%	\$111,063
Rentals & Oper Leases	\$24,682			100%	\$24,682
Computer Equipment	\$55,101			100%	\$55,101
Other Equipment	\$731,337			100%	\$731,337
Misc Expenditures	\$199,539	50%	\$99,770	50%	\$99,770
<b>BHS Total O&amp;M Expenditures</b>	<b>\$2,695,032</b>		<b>\$984,716</b>		<b>\$1,710,317</b>

Notes:

General Services = General +Admin+Computer services

Other Supplies = Inst & Resident, Specific Use, and Admin supplies

Other Equipment = Motorized-Nonmotorized, Office, and Specific Use equipment

Misc Expenditures = Misc expenditures + Mfg & Merch costs + Insurance

**Table 6-9. Total Economic Impacts of IMD Bureau of Homeland Security**

Impact Type	Employment	Labor Income	Output
Direct Impacts	26	\$985,000	\$2,695,000
Indirect Impacts	8	\$270,000	\$1,044,000
Induced Impacts	9	\$286,000	\$1,037,000
<b>Total Effect</b>	<b>43</b>	<b>\$1,541,000</b>	<b>\$4,776,000</b>
<b>Multpliers (SAM Type II)</b>	1.65	1.56	1.77

Source: IMPLAN, 2013 data

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

Total economic impacts of BHS O&M expenditures are 43 jobs, \$1.54 million in labor income and \$4.78 million in economic output.

Public Safety Communications: Table 6-10 shows the O&M expenditures made by the Public Safety Communications program. Operating expenses total just over one million dollars. Again all the funds are spent within the Idaho economy though clearly many of the equipment items are manufactured in other states.

**Table 6-10. Public Safety Communications O & M Expenditures**

Expense Category	2012- 2014 Average	% Labor	Local Labor Cost	% Materials	Local Materials Cost
Communication Cost	\$29,686			100%	\$29,686
Emp Development Costs	\$4,402			100%	\$4,402
Emp Travel Costs	\$27,436	50%	\$13,718	50%	\$13,718
General Services	\$97,760	100%	\$97,760		
Professional Services	\$5,848	100%	\$5,848		
Repair & Maint Serv	\$69,985	50%	\$34,993	50%	\$34,993
Fuel & Lubricants	\$53,432			100%	\$53,432
Computer Supplies	\$5,303			100%	\$5,303
Rep & Maint Supplies	\$125,517			100%	\$125,517
Other Supplies	\$23,702			100%	\$23,702
Utility Charges	\$109,259			100%	\$109,259
Rentals & Oper Leases	\$70,458			100%	\$70,458
Bldg Improvements	\$38,611			100%	\$38,611
Computer Equipment	\$33,362			100%	\$33,362
Other Equipment	\$214,089			100%	\$214,089
Misc Expenditures	\$123,882	50%	\$61,941	50%	\$61,941
<b>PSC Total</b>	<b>\$1,032,734</b>		<b>\$214,260</b>		<b>\$818,474</b>

Notes:

General Services = General +Admin+Computer services

Other Supplies = Inst & Resident, Specific Use, and Admin supplies

Other Equipment = Motorized-Nonmotorized, Office, and Specific Use equipment

Misc Expenditures = Misc expenditures + Mfg & Merch costs + Insurance

Total economic impacts of the Public Safety Communications O&M expenditures amount to 15 jobs, \$294,000 in labor income and \$1.72 million in economic output.

**Table 6-11. Total Economic Impacts of IMD Public Safety Communications**

Impact Type	Employment	Labor Income	Output
Direct Impacts	9	\$214,000	\$1,033,000
Indirect Impacts	3	\$62,000	\$351,000
Induced Impacts	<u>3</u>	<u>\$18,000</u>	<u>\$334,000</u>
<b>Total Effect</b>	<b>15</b>	<b>\$294,000</b>	<b>\$1,718,000</b>
<b>Multpliers (SAM Type II)</b>	1.67	1.37	1.66

Source: IMPLAN, 2013 data

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

### Grant Programs

The Idaho Military Division also operates two grant programs from the Bureau of Homeland Security. These pass-through expenditures are shown in Table 6-12. The Bureau of Homeland Security grants to tribes, counties, and cities pays for regional disaster response teams, such as hazmat teams. The grants cover salary and benefits plus the equipment and supplies necessary for the job. On-going training is part of this job. An estimated 90% of equipment is sourced within Idaho.

The Emergency Communications grant funds come from the dollar attached to all monthly cell phone charges. These grants to local units of government fund the 911 emergency system within the state. It is estimated that three-quarters of the equipment and software purchased is sourced through an Idaho company.

The last item covers various grant programs that have irregular funding patterns and represent opportunities captured for the benefit of Idaho's emergency response system.

**Table 6-12. Idaho Bureau of Homeland Security Grant Programs**

Expense Category	3 Year Average	% Labor	Local Labor Cost	% Materials	Local Materials Cost
<b>BHS Federal Grants</b>	<b>\$11,486,746</b>				
Payroll (50%)	\$5,743,373	100%	\$5,743,373		
Equipment (30%)	\$3,446,024			90%	\$3,101,421
Supplies (10%)	\$1,148,675			100%	\$1,148,675
Training (10%)	\$1,148,675	100%	\$1,148,675		
<b>E911 Emergency Communications Grants</b>	<b>\$2,211,641</b>				
Services (33.3%)	\$736,477	100%	\$736,477		
Equipment (66.7%)	\$1,475,165			75%	\$1,106,374
<b>Misc Payments to Local Units</b>	<b><u>\$181,506</u></b>	50%	<u>\$90,753</u>	50%	<u>\$90,753</u>
<b>Total BHS Grant Expenditures</b>	<b>\$13,879,893</b>		<b>\$7,719,277</b>		<b>\$5,447,222</b>

## Notes

Grant expenditures by local units of government are not kept by BHS,  
so this table uses assumptions that are the best estimates by the grant officers.

Table 6-13 shows the total economic impacts of the IMD grant programs. A total of 308 jobs, \$9.9 million in labor income and \$22.6 million in economic output flow from the expenditures of the BHS grants.

**Table 6-13. Total Economic Impacts of IMD BHS Grant Programs**

Impact Type	Employment	Labor Income	Output
Direct Impacts	223	\$7,719,000	\$13,166,000
Indirect Impacts	14	\$354,000	\$1,683,000
Induced Impacts	<u>71</u>	<u>\$1,831,000</u>	<u>\$7,753,000</u>
<b>Total Effect</b>	<b>308</b>	<b>\$9,904,000</b>	<b>\$22,602,000</b>
<b>Multpliers (SAM Type II)</b>	1.38	1.28	1.72

Source: IMPLAN, 2013 data

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

**Summary**

The economic impacts of the Idaho Military Division are summarized at the beginning of this chapter.

## Chapter 7: Construction impacts

### Capital Costs

Capital costs are the other, and perhaps more important, type of cost for a defense activity. Capital costs are the one-time cost of constructing the facilities and acquiring assets. In the case of the Idaho Army National Guard, only the capital costs associated with construction of facilities at Gowen Field or the Orchard Combat Training Center can be identified. Projects of less than \$750,000 cost at Gowen or elsewhere in the state are compiled under Minor Construction in O&M expenditures. There are numerous cases of using this program to renovate National Guard facilities outside of Ada County. Nor were there any significant Air Guard construction projects identified.

### Capital Cost of IDARNG and OCTC Facility Improvements

Gowen Field sits on property owned by the City of Boise, Airport Authority and used by the military through a permit lease agreement. The Orchard Combat Training Center is located on federal and state land. The federal land is administered by the Bureau of Land Management (BLM) with National Guard and Reserve use authorized by the Birds of Prey National Conservation Act at no cost to the National Guard. A Memorandum of Understanding with the BLM specifies conditions of use. The Idaho Army National Guard pays the Idaho Department of Lands an annual lease fee for the approximate 11 1/2 square miles (7360 acres) of state endowment land.

The Mobilization and Training Equipment Site (MATES) and the Ammunition Supply Point (ASP) are outside the OCTC boundary on state endowment ground. IDARNG paid a 25 year lease fee of \$98,012.80 in 2009 to the Idaho Department of Lands for the ASP site. The lease fee for the OCTC is \$5000 a year. The IDNG-Boise Airport agreement has a few nominal fees associated with it, but most costs are covered in exchange-for-services agreements, such as crash rescue and airfield maintenance.

Many of the Gowen Field buildings and facilities pre-date the timeframe of this study and are historical in nature. Other costs are shared by the Air National Guard or have other data issues. In contrast, many of the improvements to the Orchard Combat Training Center have occurred in the recent past. Table 16 displays the costs of various range and facility improvements since FY2008. The last six fiscal years have seen \$104.4 million in base improvements, and all of this spending has been local. The nominal average of these six years is \$17.4 million per year. To correct for inflation these nominal figures were adjusted by the Producer Price Index for new industrial buildings. The six year nominal average construction at IDARNG was \$16.5 million. Correcting for inflation, the real five year average for FY2007-2011 was \$17.4 million.

Given the regularity of construction projects being funded at IDARNG, and the improving future construction estimates, **the \$17.4 million real six-year average can be added to the operations impacts as a predictable part of IDARNG on-going impacts.**



**Table 7-1. Idaho National Guard New Construction Projects**

<b>Construction Project</b>	<b>Total Project Cost</b>	<b>Total Project Cost (inflation-adjusted)</b>
Railhead PH1	\$10,629,998	
Railhead PH2	\$7,001,683	
UAC Urban Assault Course	<u>\$1,848,172</u>	
<b>2008 Sub- Total</b>	<b>\$19,479,853</b>	<b>\$21,432,000</b>
RCOM - Range Center of Excellence Op	\$1,742,517	
LFSH - Live Fire Shoot House	\$1,893,520	
ORTC PH1 Design	\$1,308,172	
Range Power 2,3,5,6	\$762,510	
CIED - Counter Improvised Explosive De	<u>\$365,000</u>	
<b>2009 Sub-Total</b>	<b>\$6,071,719</b>	<b>\$6,731,000</b>
Bldg 720 - Fitness Center	\$747,217	
Range Power Cindercone 10-14	\$723,999	
CACTF - Combined Arms Collective Tra	<u>\$9,052,386</u>	
<b>2010 Sub-Total</b>	<b>\$10,523,602</b>	<b>\$11,633,000</b>
ORCTC PH1 Construction	\$13,795,767	
LFEB - Live Fire Exercise Breach	\$237,695	
Sqd Defense Range 17	\$752,966	
Grenade Launcher Rng 16	\$12,442	
Heavy Sniper Rng 18	\$778,316	
Engineer Qual Range 22	\$428,971	
Grenade & FA Direct Rng 28, 29A, 29B	\$173,313	
Range Power 14-18	\$267,000	
TUAS Ops Facility	<u>\$6,022,073</u>	
<b>2011 Sub Total</b>	<b>\$22,468,543</b>	<b>\$24,306,000</b>
FTI - Fixed Tactical Internet	<u>\$1,460,173</u>	
<b>2012 Sub Total</b>	<b>\$1,460,173</b>	
ORTC PH2	<u>\$38,962,000</u>	
<b>2013 Sub Total</b>	<b>\$38,962,000</b>	<b>\$40,277,000</b>
<b>2008 - 2013 Average</b>	<b>\$16,494,315</b>	<b>\$17,396,000</b>
Note: Corrected for inflation using Producer Price Index (PPI) for new industrial building construction		
2008-2013 Total	<b>\$98,965,890</b>	<b>\$104,378,000</b>

## Total Economic Impacts of Average IDARNG Construction

The \$17.4 million in real (inflation-corrected), average construction can be fed into the IMPLAN model for the Idaho economy. The resulting direct, indirect, induced, and total impacts are shown in Table 7-2. The \$17.4 million in average construction results in direct impacts of 114 jobs. Because the expenditures are for types of construction for which most of the materials and labor are developed or sourced locally, this time the indirect impacts are of similar magnitude to induced impacts. This leads to indirect impacts of 50 jobs and induced impacts of 48 jobs for a total of 212 full, part-time, or seasonal jobs. Clearly, in the case of construction, most of these jobs will be temporary for the duration of the project. Similarly, a total of \$9.35 million is generated in labor income, and the \$17.4 million of economic output ripples into total impacts of \$29.2 million.

**Table 7-2. Total Economic Impacts of Average IDARNG Construction**

Impact Type	Employment	Labor Income	Output
Direct Impacts	114	\$5,636,000	\$17,396,000
Indirect Impacts	50	\$1,980,000	\$6,236,000
Induced Impacts	48	\$1,737,000	\$5,575,000
<b>Total Effect</b>	<b>212</b>	<b>\$9,353,000</b>	<b>\$29,207,000</b>
<b>Multpliers (SAM Type II)</b>	1.86	1.66	1.68

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho

Labor Income and Output expressed in 2014 \$.

Average construction project expenditures by IDARNG 2008 - 2013

## Capital Cost of Vehicles and Aircraft

It is difficult to place an exact value on the military vehicles and aircraft used by IDARNG, because they are acquired at different times and many have special upgrade packages for arms and armor. Table 7-3 contains a partial list of equipment cost based on current replacement values. The costs are assessed at an estimated average value based on the proportion of equipment with modification packages. Where an average value could not be calculated, a mid-range vehicle value was selected.

One observation to make about the vehicle operations and maintenance costs reported in Chapters 3 and 4 is that they do not include the depreciation of the capital costs reported in Table 7-3. Depreciation expenses are based on the expected useful life of the item and a cost of capital or interest rate. Depreciation expenses are sometimes called equipment replacement charges.

Note that the entire Idaho fleet consists of 1,025 wheeled tactical vehicles, 193 tracked vehicles, and 38 aircraft. Tactical means that the vehicle is designed for military specifications. Often these vehicles are armored to some degree. If the remaining vehicles were valued, the entire fleet of Idaho National Guard vehicles would likely be worth over a billion dollars.

Finally, it should be noted that **all the capital costs of equipment are expended in the manufacture of these vehicles and aircraft outside the Idaho economy, and thus create no direct economic impact here.**

**Table 7-3. Capital Cost – Tactical Vehicles in IDARNG Fleet**

	IDARNG Average Cost	Number in IDARNG Fleet	Total Cost (\$MM)
<b>WHEELED VEHICLES</b>			
High Mobility Multi-purpose Wheeled Vehicle (HMMWV)	\$152,000	392	\$59,584,000
Mine Resistant Ambush Protected (MRAP)	\$680,000	6	\$4,080,000
2 1/2 Ton Trucks	\$176,000	96	\$16,896,000
5 Ton Trucks	\$200,000	137	\$27,400,000
Light Equipment Transport	\$166,000	10	\$1,660,000
Heavy Equipment Transporter (HET)	\$628,000	3	\$1,884,000
Fuel Trucks	\$384,000	40	\$15,360,000
Wreckers	\$491,000	26	\$12,766,000
Dump Trucks	\$200,000	29	\$5,800,000
ENG MISC	\$155,000	65	\$10,075,000
Forklifts	\$72,000	48	\$3,456,000
<b>TRACKED VEHICLES</b>			
M1-A1 Abrams Tank	\$2,900,000	29	\$84,100,000
M-113 Series Personnel Carriers	\$450,000	39	\$17,550,000
M-2/3 Bradley Fighting Vehicles	\$3,310,000	61	\$201,910,000
M88 Howitzers	\$1,435,000	16	\$22,960,000
<b>AIRCRAFT</b>			
AH-64 Apache	\$16,700,000	17	\$283,900,000
UH-60L Blackhawk	\$5,200,000	7	\$36,400,000
LUH-72A Light Utility Helicopter	\$5,394,000	2	\$10,788,000
Drone Aircraft	\$100,000	<u>11</u>	<u>\$1,100,000</u>
<b>(Millions 2014 \$)</b>		<b>791</b>	<b>\$817,669,000</b>

Note: Updated to 2014 prices and inventory

Prices vary among inventory based on specifications and upgrades.

Where average not available, IDARNG average based on mid-range price.

Total vehicle fleet in Idaho is 1,248. 1,025 wheeled vehicles, 193 tracked vehicles and 38 aircraft.

## Chapter 8: Other National Guard Impacts

This study has focused on the economic impacts of the Idaho National Guard, which can be both quantified and monetized. There are other positive impacts of the National Guard's presence. Some impacts can be quantified but not in terms of money, while other impacts can only be described qualitatively. Still, all impacts should be included in a comprehensive study, and that is the purpose of this chapter.

**Disaster and Emergency Assistance.** One of the most widely observed benefits of the National Guard is their deployment to assist in managing disasters and emergency situations. Deployment typically requires a disaster declaration by the Governor of Idaho or President of the United States in their roles as chief executive officer of the State or nation. There have been 23 Presidential disaster declarations for Idaho in the state's history. However, disaster declarations by the Federal Emergency Management Administration (FEMA) have been much more common.

Deployment for natural disasters is the most common domestic use of the Guard. A recent example was the deployment of members of the Idaho Air Guard to help manage both air and highway traffic in a region of wildfires in the Clearwater River Basin. A major deployment of the Idaho National Guard occurred in 1976 with the failure of the Teton Dam and the downstream flood damages that resulted. The eruption of Mt St. Helens in 1980 and the Challis earthquake of 1983 similarly required Guard assistance. Wildfires and flooding are likely the two most common precipitating events. Not only do soldiers lend assistance, but National Guard equipment may help with firefighting, moving dirt and mud, hauling debris, traffic safety, and assistance to disaster victims.

The National Guard can also be deployed to keep the peace in times of public disturbances. Over a century ago, the Idaho National Guard was to be called to restore order in the Silver Valley due to a labor dispute with the silver mines by Governor Steunenberg. However, the Idaho National Guard was still in the Philippines following the Spanish-American War, so the U.S. Army was called.

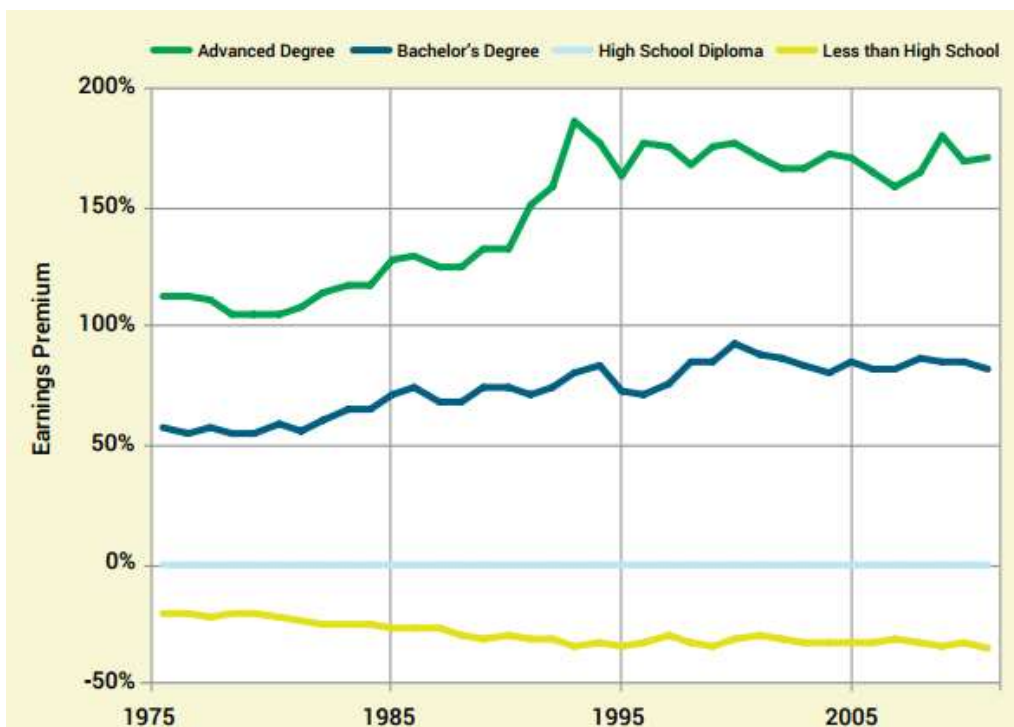
**Education Benefits.** National Guard members qualify for education benefits that allow the completion of professional and technical certifications and any college degree. There are three programs currently available.

- The GI Bill offers education benefits that vary with time served, location and duration of postings overseas, and other variables. Benefits include paying a percentage of tuition, the cost of books, and a Basic Allowance for housing (BAH) that varies with location. Since 9/11, these benefits are even transferable to the children of Guard members during their years of service, and can also be used to pay down existing school debt.

- The Federal Tuition Assistance program offers up to \$4,500 per year to Guard members while in service. Recipients must be enrolled in a degree program. In the last two years, an average of \$704,000 has been awarded to Idaho Guard members and an average of 32 degrees have been awarded.
- A new program started in July 2015 is the State Education Assistance Program (SEAP). An amount of \$103,688 has been appropriated for FY2016 for this program, which supplements the Federal Tuition Assistance Program.

A bachelor's degree has been shown to allow the average graduate to earn over seventy percent more than a person with a high school diploma (Census Bureau, 2013), as Figure 9-1 demonstrates.

**Figure 8-1. Mean Earnings of US Workers 18 Years and Over by Educational Attainment, 1975-2011**



Note: Earnings are shown as a premium relative to mean earnings of high school graduates  
 Source: US Census Bureau, 2013; Lewin, Paul and Willem Braack, Economic Returns to Education in Idaho, Rural Opportunities Consortium of Idaho, February 2015.

An additional point to be made here is that education does not simply benefit the individual by enlarging their personal knowledge base and allowing them to earn larger salaries. Education also benefits the community and the economy by increasing the workforce skill sets available to employers. This makes Idaho businesses more profitable and innovative. Educated citizens also contribute their skills to community organizations.

**Health Care Benefits.** The health care policy debate has made clear the importance of having health care insurance. Nineteen per cent of Idahoans aged 19-64 went uninsured for health care in 2013 according to the Census. Service in the Idaho National Guard not only covers Guard members, but makes insurance available to family members as well. The cost of health insurance is considerably less than for a comparable policy from the Idaho Health Insurance Exchange.

**In-Bound Transportation Expenditures.** The Orchard Combat Training Center attracts out-of-state Guard units, who conduct their annual trainings in Idaho. The Boise airport receives thousands of soldiers who arrive via commercial air travel. For instance, the OCTC currently trains about three out-of-state combat brigades per year. Each combat brigade may have over 3,000 personnel, assuming an 80% attendance rate. While local spending on food, lodging, and entertainment is already detailed in Chapter 11, there is additional benefit in supporting the Boise airport and its associated businesses.

**Community Volunteer Benefits.** National Guard members are pre-disposed toward involvement in community affairs. Nearly all Guard members serve out of a patriotic feeling of obligation toward the country they live within. Their employment is a form of public service, so it is only natural that they will be active in community organizations and projects.

Moreover, the training and education they receive as Guard members increases the value of their volunteer efforts. Not only do they have specific technical skills in things like engineering, computer and technology use, or mechanical repair, but they also have extensive skills in organizing, project management, and strategic planning. These leadership skills can increase the probability of successful completion of community projects.

One specific volunteer program operated by the Idaho National Guard is the Idaho Youth Challenge. In this program, School drop-outs between 16 and 18 years old are given 22 weeks of intensive training that develops life skills and leads to the completion of a GED. Two classes are trained each year. In a recent year, 84 youth who might otherwise be in the corrections system, graduated from the Idaho Youth Challenge. Forty Guard employees spend time on this program.

**Contributions to National Security.** Last, but certainly not least of the non-quantifiable benefits, is the contribution the Idaho National Guard makes to the security of the United States. The Guard provides a quick response presence to any challenge within our borders. Table 9-1 shows the history of overseas deployments of Idaho units in the last fifty years. Idaho Guard members have been deployed six times since 2000. The OCTC also provides a valuable high desert site for preparation before deployment by Guard units from across the country.

**Table 8-1. Deployments of the Idaho Army National Guard**

<u>Year</u>	<u>Unit</u>	<u>Conflict</u>	<u>Location</u>
1968-69	116 <sup>th</sup> Combat Engineer BN	The Vietnam Conflict	Vietnam
1990-91	148 <sup>th</sup> Public Affairs Detachment	Desert Shield/Desert Storm	Kuwait/Iraq
1997-98	938 <sup>th</sup> Engineer Detachment	Operation Joint Guard	Tazar, Hungary
2002-031-183d	Aviation Battalion (Attack)	Stabilization Force 12	Bosnia-Herzegovina
2003-04	938 <sup>th</sup> Engineer Detachment	Operation Iraqi Freedom	Mosul, Iraq
2004-06	116 <sup>th</sup> CBCT*	Operation Iraqi Freedom III	Kirkuk, Iraq
2005-2006	1-183d Aviation Battalion (Attack)	Global War On Terror	Afghanistan
2010-11	116 <sup>th</sup> CBCT*	Operation New Dawn	Iraq
2012-13	Company A, 1-168 GSAB^	Global War On Terror	Afghanistan

\* 116<sup>th</sup> Cavalry Brigade Combat Team

^Company A, 1-168 General Support Aviation Battalion

Source: Capt. Robert Taylor, Idaho National Guard, October 14, 2015

## Chapter 9: Total National Guard and National Security Impacts on Idaho

### Chapter Summary

The total quantifiable economic impacts of national security footprint in Idaho can now be aggregated from the analysis of each individual unit. The tables in this chapter summarize the impacts of the Idaho Army National Guard both within Ada County and the rest of Idaho, the Idaho Air Guard, the Idaho Military Division, including the Bureau of Homeland Security, and the average construction impacts of improvements to the Orchard Combat Training Center.

### Personnel Summary

The table below summarizes the total direct employment by the Idaho National Guard and related national security apparatus. In FY2014 there were 1,201 civilian employees and 4,054 military employees, holding full, part-time, or seasonal jobs for the National Guard in Idaho, for a total of 5,255 employees.

Note that only a handful of soldiers were deployed in FY2014. In FY2011 there were 275 M-Day Mob and 30 FTMA soldiers deployed overseas from Gowen Field and the OCTC alone. Their full-time combat wages increased payroll by nearly \$20 million.

**Table 9-1. Total Employment & Payroll Impacts of the Idaho National Guard**

Type	Number	Total Wages, Allowances & Benefits
State Technician	314	\$20,671,000
Federal Technician	795	\$65,352,000
Federal Contract Employees	83	\$4,659,000
Non-Appropriated Fund Employees (NAFE)	9	\$321,000
<b>Civilian Sub-Total</b>	<b>1,201</b>	
Active Duty Special Work (ADSW) and Active Guard and Reserve (AGR)	631	\$51,001,000
Substance Abuse (ADOS)	4	\$292,000
Total Full Time Mobilization Augmentee (FTMA)	0	\$0
Mobilized Traditional Soldier (M-Day Mob)	8	\$1,232,000
Traditional Soldier Not Mobilized (M-Day) and Traditional Soldier Active Duty for Training (ADT)	3,411	\$39,589,000
<b>Military Sub-Total</b>	<b>4,054</b>	
<b>TOTAL EMPLOYMENT</b>	<b>5,255</b>	<b>\$183,116,000</b>



A second observation is that 65% of total employees are traditional National Guard soldiers. They hold part-time positions with the Guard, typically working 63 days per year.

The size of National Guard employment will come as a surprise to many because the employees are measured inside a number of separate programs. Rarely are the four civilian employee types and up to six military employee categories summed up in this way to obtain total national security employment within a state. The National Guard's story has not been accurately told precisely due to the way employees are accounted in separate, stovepipe programs. No matter if the source of the payroll is state or federal funds, no matter if the job is civilian or military, and no matter if the person is a direct employee or a contractor, each of these 5,255 people are working toward the national security mission within Idaho.

### Summary of Direct Impacts

Table 9-2 totals the direct economic impacts of the Idaho National Guard by program. The Army National Guard was split between those stationed in Ada County at Gowen Field or the OCTC and those stationed in the rest of the state, so as to allow comparisons with the 2012 study. The impacts of average IDARNG construction projects are listed separately. Note these are projects within Ada County, with most projects in the rest of Idaho budgeted within O&M expenditures.

The Idaho Military Division is broken into five different programs, including grants which are expended primarily by local government.

In all, expenditures by the Idaho National Guard and the national security apparatus amount to nearly \$319 million. About 21% of those expenditures were for equipment and materials made outside Idaho, which have no effect on the Idaho economy. The direct impacts of the National Guard within Idaho amount to nearly \$251 million. Two-thirds of total expenditures, or 85% of direct impacts are for labor.

**Table 9-2. Total Direct Economic Impacts of the Idaho National Guard**

Category	Total Expenditures	Labor	Materials	Total Direct Impact
IDARNG - Ada County	\$156,871,000	\$92,367,000	\$10,903,000	\$103,270,000
IDARNG - Rest-of-Idaho	\$29,090,000	\$25,686,000	\$1,125,000	\$26,811,000
IDARNG Ave Construction	\$17,396,000	\$5,636,000	\$11,760,000	\$17,396,000
Idaho Air Guard	\$90,484,000	\$73,362,000	\$5,749,000	\$79,142,000
IMD Personnel Salary & Benefits	\$6,642,000	\$6,642,000		\$6,642,000
Military Mgt Operations & Maintenance	\$495,000	\$161,000	\$334,000	\$495,000
Bureau of Homeland Security O & M	\$2,695,000	\$985,000	\$1,710,000	\$2,695,000
Public Safety Communications O & M	\$1,033,000	\$214,000	\$819,000	\$1,033,000
Grant Programs	<u>\$13,880,000</u>	<u>\$7,719,000</u>	<u>\$5,447,000</u>	<u>\$13,166,000</u>
<b>TOTAL</b>	<b>\$318,586,000</b>	<b>\$212,772,000</b>	<b>\$37,847,000</b>	<b>\$250,650,000</b>

### Summary of Total Economic Impacts

The direct impacts can then be introduced into the 2013 IMPLAN model of Idaho's economy, corrected to 2014 dollars, in order to obtain the indirect and induced impacts. The activities of the 5,632 employees of the National Guard in Idaho lead to a total of 10,742 jobs within Idaho. These employees receive total compensation in wages and benefits of \$347.8 million per year. They generate economic activity totaling \$484.5 million.

**Table 9-3. Total Economic Impacts of the Idaho National Guard**

Impact Type	Employment	Labor Income	Output
Direct Impacts	5,632	\$212,771,000	\$250,650,000
Indirect Impacts	2,040	\$55,418,000	\$106,848,000
Induced Impacts	3,070	\$79,578,000	<u>\$127,032,000</u>
<b>Total Effect</b>	<b>10,742</b>	<b>\$347,767,000</b>	<b>\$484,530,000</b>
<b>Multippliers (SAM Type II)</b>	1.91	1.63	1.93
% of Idaho Economy	1.18%	1.09%	0.32%

Source: IMPLAN, 2013 data

Notes: Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

The total impacts can be separated by program. Table 9-4 shows the employment, labor income, and economic output generated by the Idaho Army National Guard, the Idaho Air Guard, and the Idaho Military Division. More detail is described in Chapters 3, 4, 5, 6, and 7 of this report.

**Table 9-4. Total Economic Impacts of the Idaho National Guard by Program**

Program	Total Impacts on Employment	Total Impacts on Labor Income	Total Impacts on Economic Output
ID Army National Guard	7,394	\$189,118,000	\$285,920,000
Idaho Air Guard	2,801	\$136,027,000	\$155,354,000
ID Military Division	<u>547</u>	<u>\$22,622,000</u>	<u>\$43,256,000</u>
<b>TOTAL IMPACTS</b>	<b>10,742</b>	<b>\$347,767,000</b>	<b>\$484,530,000</b>

Source: IMPLAN, 2013 data

Notes: Program impacts include personnel and Operations and Management direct impacts  
Employment includes all full, part-time, and seasonal jobs in Idaho  
Labor Income and Output expressed in 2014 \$.

## Comparisons to the Idaho Economy

One question that arises in considering the economic impacts of an organization is what these large numbers really mean. Table 9-3 includes a line offering a comparison to the economic equivalent at the state level. For instance, the total employment impacts of the Idaho National Guard are 10,742 jobs, which is 1.18 percent of the total employment of the Idaho economy in 2013, or 911,428 full, part-time, and seasonal jobs. Another way to say this is that in the absence of the Idaho National Guard, there would be over one percent fewer jobs in Idaho. Similarly, the \$347.8 million in labor income derived from those jobs is 1.09% of all labor income in Idaho. Labor income consists of wages, benefits, and the proprietors' income generated by the self-employed.

In terms of economic output, the \$484.5 million in economic activity generated by the activities of the Idaho national security apparatus amounts to 0.32% of the Idaho gross domestic product. The reason that this percentage is smaller than those for employment and labor income is that the output of the Idaho National Guard are public services that are not re-sold into the economy. If the National Guard produced cars or computer chips that were sold to consumers or other businesses, then the percentage of economic output would be higher.

Table 9-3 also has a line with the economic multipliers associated with the Idaho National Guard. These multipliers can be calculated by dividing the total economic impacts by the direct impacts. The employment multiplier is 1.91. This means that for each job created directly by the Idaho National Guard, another 0.91 job is created somewhere else in the Idaho economy. The output multiplier is a very similar 1.93, but the labor income multiplier is lower at 1.63. The reason is that many of the higher paying jobs generated by the National Guard are in the defense industry that manufactures military equipment. Idaho has very few defense industry companies.

As a matter of economic education, it is worth noting that each of these multipliers falls within the typical range of 1.75 to 2.25. Claims of a dollar rippling four to seven times through the economy are common enough, but simply not true.

Finally, it is worthwhile to compare the Idaho National Guard to other major employers in Idaho. Table 9-5 shows the top employers in the Idaho economy from both the public and private sector for FY2014, the same time period as this study. The 5,255 employees calculated in Table 9-1 mean that **the Idaho National Guard would rank fourth among Idaho employers**, behind St Lukes, Wal-Mart, and Micron Technology, but ahead of BYU-Idaho, the University of Idaho, and Boise State University.

**Table 9-5. Top Employers in Idaho**

RANK	PRIMARY NAME	EMPLOYMENT RANGE*	INDUSTRY
1	ST LUKES HEALTH SYSTEMS	11,700 - 11,799	HEALTH CARE
2	WAL-MART	6,800 - 6,899	RETAIL TRADE
3	MICRON TECHNOLOGY	5,700 - 5,799	MANUFACTURING
4	BYU - IDAHO	4,600 - 4,699	EDUCATION - PRIVATE
5	UNIVERSITY OF IDAHO	4,600 - 4,699	STATE GOVERNMENT - EDUCATION
6	BOISE STATE UNIVERSITY	4,600 - 4,699	STATE GOVERNMENT - EDUCATION
7	MERIDIAN JOINT SCHOOL DISTRICT #2	4,300 - 4,99	LOCAL GOVERNMENT - EDUCATION
8	INDEPENDENT SCHOOL DISTRICT BOISE CITY #1	3,800 - 3,899	LOCAL GOVERNMENT - EDUCATION
9	IDAHO STATE UNIVERSITY	3,400 - 3,499	STATE GOVERNMENT - EDUCATION
10	BATTELLE ENERGY ALLIANCE LLC	3,400 - 3,499	PROFESSIONAL & TECHNICAL SERVICES
11	ST ALPHONSUS REGIONAL MEDICAL CENTER	3,400 - 3,499	HEALTH CARE
12	J R SIMPLOT CO	3,200 - 3,299	MANUFACTURING
13	ALBERTSONS INC	3,000 - 3,099	RETAIL TRADE
14	IDAHO DEPARTMENT OF HEALTH & WELFARE	2,800 - 2,899	STATE GOVERNMENT - ADMINISTRATION
15	US FOREST SERVICE	2,400 - 2,499	FEDERAL GOVERNMENT
16	US POSTAL SERVICE	2,400 - 2,499	FEDERAL GOVERNMENT
17	FRED MEYER STORES INC	2,200 - 2,299	RETAIL TRADE
18	KOOTENAI MEDICAL CENTER	2,200 - 2,299	HEALTH CARE
19	HEWLETT-PACKARD CO	2,000 - 2,099	MANUFACTURING
20	IDAHO POWER CO	2,000 - 2,099	UTILITIES
21	WELLS FARGO BANK NA	2,000 - 2,099	FINANCE & INSURANCE

\* Based on FY2014 average employment (July 2013 - June 2014)

SOURCE: Quarterly Report of Employment & Wages: July 2013 - June 2014

Idaho Department of Labor, Communications & Research

### Fiscal Impacts to the State of Idaho

A rule of thumb is that a dollar of labor income will generate five cents of tax revenue to the State of Idaho. This revenue may come as sales tax, income tax, gasoline tax, liquor tax, or many other state taxes. If this 5% rule is applied to the total labor income generated by the Idaho National Guard of \$348 million, then \$17.4 million in tax revenues of any kind accrue to the coffers of the State of Idaho. For comparison, a total of \$6,480,400 of Idaho General Account funding supports the Idaho Military Division and the Idaho National Guard. Because the vast majority of the Idaho National Guard comes from federal funds, state government receives far more than it costs in tax revenues.

## Chapter 10: The Impact of Additional Trainings at OCTC

### Chapter Summary

Here the impacts of adding an additional training at the Orchard Combat Training Center are analyzed. In Table 10-1 the total economic impacts within Idaho of a single annual training are summarized. They range from nearly \$1.0 million and 7.8 additional jobs for a Heavy Combat Brigade to \$76,000 and 0.6 job for a Marine Tank Company.

It is important to remember that these impacts will occur every year, if the capacity of the OCTC is increased by some project improvement and there exists sufficient demand by Guard units to use the Orchard Combat Training Center. The right-hand column in Table 10-1 shows the present value of the economic output impacts of 20 years of annual trainings. One can assume employment impacts would remain at the annual level but extend for 20 years.

**Table 10-1. Summary of Total Economic Impacts of Annual Training by Unit**

Unit	Employment	Labor Income	Output	Present Value of 20 Years of Trainings
<b>Heavy Combat Brigade</b>	<b>7.8</b>	<b>\$414,000</b>	<b>\$998,000</b>	<b>\$14,850,000</b>
<b>Combined Arms Battalion</b>	<b>3.3</b>	<b>\$176,000</b>	<b>\$426,000</b>	<b>\$6,340,000</b>
<b>Armored Recon Regiment</b>	<b>1.9</b>	<b>\$101,000</b>	<b>\$245,000</b>	<b>\$3,640,000</b>
<b>Artillery Battalion</b>	<b>1.7</b>	<b>\$91,000</b>	<b>\$223,000</b>	<b>\$3,320,000</b>
<b>Attack Aviation Battalion</b>	<b>7.6</b>	<b>\$406,000</b>	<b>\$982,000</b>	<b>\$14,610,000</b>
<b>Medium Lift Company</b>	<b>1.7</b>	<b>\$90,000</b>	<b>\$217,000</b>	<b>\$3,230,000</b>
<b>Marine Tank Company</b>	<b>0.6</b>	<b>\$32,000</b>	<b>\$76,000</b>	<b>\$1,130,000</b>

Notes:

- 1) Total direct, indirect, and induced economic impacts of annual training at 80% attendance.
- 2) One-time temporary impacts
- 3) Present value of 20 years of annual trainings beginning after a one year project construction period, discounted at 3%.

Table 10-2 provides a summary description of the composition of the units analyzed for the cost of annual training at IDARNG's Orchard Combat Training Center. These units were judged to be the most likely to participate in trainings at OCTC. Average training attendance was estimated to be eighty percent, with equipment complement per Army reference manual. The number of soldiers participating in the training varies from 56 personnel in a Medium Lift Company to 3,007 in a Heavy Brigade Combat Team.

Table 10-2. Summary of Annual Training Attendance by Type of Unit

	# Soldiers	Track Vehicles	Wheeled Vehicles	Aircraft
<b>Heavy Brigade Combat Team</b>				
	3,759	527	833	
<b>80% Average Attendance</b>	<b>3,007</b>	<b>243</b>	<b>669</b>	
<b>Combined Arms Battalion</b>	622	91	53	
Forward Support Company,	214	99	74	
Total	836	190	197	
<b>80% Average Attendance</b>	<b>669</b>	<b>94</b>	<b>114</b>	
<b>Armored Reconnaissance Regiment</b>	383	53	64	
Forward Support Company,				
Reconnaissance Squadron	135	5	48	
Total	518	58	185	
<b>80% Average Attendance</b>	<b>414</b>	<b>55</b>	<b>95</b>	
<b>Artillery Battalion</b>	331	39	69	
Forward Support Company,				
Artillery Battalion	137	4	51	
Total	468	43	188	
<b>80% Average Attendance</b>	<b>374</b>	<b>42</b>	<b>120</b>	
<b>Attack Aviation Battalion (AH-64)</b>	400	0	87	16-24
<b>80% Average Attendance</b>	<b>320</b>	<b>0</b>	<b>69</b>	<b>16</b>
<b>Medium Lift Company (UH-60)</b>	70	0	8	8
<b>80% Average Attendance</b>	<b>56</b>	<b>0</b>	<b>4</b>	<b>8</b>
<b>Marine Tank Company</b>	<b>120</b>	<b>9</b>	<b>10</b>	<b>0</b>

## Introduction

The next task is to estimate the economic impacts of additional activity at the Orchard Combat Training Center and Gowen Field sites. These are called *marginal* impacts because the analysis and only looks at the additional economic transactions that would occur with each new use of the base. The purpose is to facilitate the analysis of future improvements to the base that may allow expanded activities to occur.

Since the facility is already serving the training needs of members of the Idaho Army National Guard stationed in the Treasure Valley and beyond, the marginal activities analyzed here are the annual trainings of units coming in from outside the region. The most common unit to conduct annual training is the Heavy Brigade Combat Team. Smaller units will be analyzed later. Based on field interviews and the past experience, units on average muster 80% attendance at any given training event.

## Heavy Combat Brigade

Table 10-3 shows the average annual training costs and local direct economic impacts for a Heavy Brigade Combat Team operating with 80% attendance. This is the largest single unit that trains at the OTA. The vehicle O&M costs are taken from Chapter 3. Recall that the fuel used is part of a national military contract and only local delivery costs are a local impact. Similarly, the vast majority of maintenance costs are for parts manufactured outside the region or depot-level repairs conducted elsewhere. Direct local impacts are only \$118,000 of \$3.3 million total costs for tracked vehicles and \$94,000 of \$2.7 million total costs for wheeled vehicles. Remember that depreciation of the capital cost of the vehicles is not considered in this analysis.

An estimated 3,007 officers and soldiers comprise a heavy brigade combat team at 80% strength. Table 10-3 assumes these personnel are housed in billets or barracks for five days at the beginning and end of their training, and the entire unit spends ten days bivouacked at the Orchard Combat Training Center. Costs of meals and lodging are set by the army and are the costs billed to the visiting unit of \$13.57 per soldier per day. However, \$7.33 of that is an MRE for lunch that was manufactured outside Idaho. Two hundred of the unit's officers are assumed to spend three evenings off the base where they spend on average \$50 per night on food, drinks, entertainment, and shopping for personal needs or souvenirs.

In total, the cost of an annual training for a Heavy Brigade Combat Team is estimated to be \$6.7 million, of which \$506,000 may be considered direct local economic impacts to the local economy. Of course, the largest cost is the cost of personnel wages during the training period. This cost is not measured here because the soldiers are visiting and their wages are mostly spent in their resident economy, with the exception of personal spending during leave time off base.

In similar fashion, no added jobs are assumed by IDARNG to provide training services; those services are assumed to be performed by existing Idaho personnel. Should the amount of added training by outside units exceed the capacity of existing Idaho employees, then number of

authorized full-time employees might eventually be increased, and this would increase the local impact.

**Table 10-3. Annual Training Costs & Local Impacts – Heavy Brigade Combat Team**  
@ 80% Attendance

	#	Cost/mile	# Miles/ Annual Training	Cost Per Vehicle/ Annual Training	Total Cost/ Annual Training	Local Impact Per Mile	Total Local Impacts
<b>Tracked Vehicles</b>							
	<b>243</b>						
Personnel and Equipment Carriers	76	\$8.85	175	\$1,549	\$117,705	\$0.68	\$9,033
Artillery and Support Tracks	26	\$68.35	82	\$5,605	\$145,722	\$2.89	\$6,151
Bradley series	86	\$141.98	150	\$21,297	\$1,831,525	\$3.60	\$46,480
Tank Retrievers	10	\$331.88	35	\$11,616	\$116,157	\$5.04	\$1,763
M1 series tanks	45	\$272.55	90	\$24,530	<u>\$1,103,829</u>	\$13.56	<u>\$54,914</u>
<b>Total Cost Tracked Vehicles</b>					<b>\$3,314,938</b>		<b>\$118,341</b>
<b>Wheeled Vehicles</b>							
	<b>669</b>						
Armored Security Vehicle	6	\$0.00	195	\$0	\$0	\$0.00	\$0
High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	368	\$7.34	850	\$6,236	\$2,294,690	\$0.26	\$80,363
Medium Tactical Vehicles (MTV) Series	132	\$2.74	390	\$1,069	\$141,055	\$0.06	\$3,315
Medium Equipment Transport (MET) 20T	2	\$1.34	120	\$161	\$321	\$0.07	\$17
Heavy Equipment Transport (HET)	2	\$10.28	300	\$3,083	\$6,166	\$0.91	\$548
Heavy Expanded Mobile Tactical Truck (HEMTT) series	159	\$3.39	420	\$1,424	<u>\$226,428</u>	\$0.15	<u>\$10,098</u>
<b>Total Cost Wheeled Vehicles</b>					<b>\$2,668,661</b>		<b>\$94,342</b>
<b>Soldiers</b>							
	<b>3007</b>						
Billeted	150	\$6.00	5	\$30	\$4,500		\$4,500
Barracks	2857	\$2.17	5	\$11	\$31,200		\$31,200
Bivouacked	3007		10	\$0	\$0		
Mess Hall Cost	3007	\$13.57	15	\$204	\$612,075		\$225,164
Dining Facility		\$170.00	15		\$2,550		\$2,550
Entertainment Spending	200	\$50.00	3	\$150	<u>\$30,000</u>		<u>\$30,000</u>
<b>Total Cost Soldiers</b>					<b>\$680,325</b>		<b>\$293,414</b>
<b>TOTAL COST ANNUAL TRAINING</b>					<b>\$6,663,924</b>		<b>\$506,097</b>

Notes:

- 1) Local Impact assumes 8 lunches of non-local MREs costing \$7.33 per lunch.
- 2) Entertainment assumes 3 leaves to town for dinner, entertainment, & shopping.
- 3) Billeted, Barracks & Bivouac assumes 2-3 days at the beginning and end of AT in garrison or traveling and 10 days in field bivouac conditions.

The next table shows the total economic impacts that are generated by the local direct impacts calculated in Table 10-3. The direct economic output impacts of \$506,000 are associated with labor income direct impacts of \$259,000 and direct employment impacts of 3.8 jobs. These two impact estimates are low relative to output because much of the labor is assumed to be provided either by existing Idaho National Guard employees or by members of the visiting training brigade. There is a small amount of contract labor delivering fuel, parts needed for repairs, food supplies, and the like.



The total economic impacts to Idaho of an additional Heavy Brigade Combat Team conducting its annual training at the Orchard Combat Training Center are \$998,000 in economic output, \$414,000 in labor income, and 7.8 jobs.

**Table 10-4. Total Economic Impacts, Heavy Brigade Combat Team Annual Training**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	3.8	\$259,000	\$506,000
<b>Indirect Impacts</b>	1.9	\$78,000	\$247,000
<b>Induced Impacts</b>	2.1	\$77,000	\$245,000
<b>Total Impacts</b>	<b>7.8</b>	<b>\$414,000</b>	<b>\$998,000</b>
<b>Multipliers (SAM Type I)</b>	<b>2.03</b>	<b>1.60</b>	<b>1.97</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes:

- 1) Brigade assumed at 80% attendance or 3,007 soldiers, coming from another state.  
See Table 8-3 for details of direct impact components.
- 2) Employment includes all full, part-time, and seasonal jobs in 3-county region.
- 3) All dollar estimates in 2014 \$.

Next analyzed is a Combined Arms Battalion of 669 personnel. Table 10-5 summarizes the total costs of the training (without equipment depreciation or personnel wages) and the total local spending, or direct impacts, of the training exercise. Most of the total cost of \$1.9 million comes from the use of 94 tracked vehicles with a total cost of \$1.55 million. Yet only 4%, or \$59,000 is estimated to be spent locally. Together with the local costs of 114 wheeled vehicles and personnel support, the Combined Arms Battalion has a direct impact of \$216,000 during its annual training.

**Table 10-5. Annual Training Costs & Local Impacts – Combined Arms Battalion**  
@ 80% Attendance

**Annual Training (AT) Costs and Local Impacts - Combined Arms Battalion @ 80% Attendance**

	Number	Cost/mile	Annual		Cost Per		Local Impact Per Mile	Total Local Impacts
			# Miles	# Miles/ AT	Vehicle/ AT	Total Cost/ AT		
<b>Tracked Vehicles</b>	<b>94</b>							
Personnel and Equipment Carriers	27	\$8.85	220	190	\$1,682	\$45,418	\$0.68	\$3,484
Bradley series	36	\$141.98	175	150	\$21,297	\$766,685	\$3.60	\$19,457
Tank Retrievers	2	\$331.88	40	35	\$11,616	\$23,231	\$5.04	\$353
M1 series tanks	29	\$272.55	120	90	\$24,530	<u>\$711,357</u>	\$13.56	<u>\$35,389</u>
<b>Total Cost Tracked Vehicles</b>						<b>\$1,546,691</b>		<b>\$58,682</b>
<b>Wheeled Vehicles</b>	<b>114</b>							
High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	56	\$1.11	1,320	950	\$1,054	\$59,014	\$0.10	\$5,122
Medium Tactical Vehicles (MTV) Series	29	\$2.74	480	390	\$1,069	\$30,989	\$0.06	\$728
Heavy Expanded Mobile Tactical Truck (HEMTT) series	29	\$3.39	580	450	\$1,526	<u>\$44,248</u>	\$0.15	<u>\$1,973</u>
<b>Total Cost Wheeled Vehicles</b>						<b>\$134,252</b>		<b>\$7,824</b>
				<b>Total Cost</b>		<b>Annual</b>		<b>Total Local</b>
<b>Soldiers</b>	<b>669</b>	<b>Cost/Day</b>	<b># Days</b>	<b>Per Soldier</b>		<b>Training</b>		<b>Impacts</b>
Billeted	100	\$6.00	5	\$30		\$3,000		\$3,000
Barracks	569	\$2.17	5	\$11		\$6,240		\$6,240
Bivouac	669	\$0.00	10	\$0		\$0		\$0
Mess Hall Cost	669	\$13.57	15	\$204		\$136,175		\$62,618
Dining Facility		\$170.00	15			\$2,550		\$2,550
Entertainment Spending	500	\$50.00	3	\$150		<u>\$75,000</u>		<u>\$75,000</u>
<b>Total Cost Soldiers</b>						<b>\$222,965</b>		<b>\$149,408</b>
<b>TOTAL COST ANNUAL TRAINING</b>						<b>\$1,903,907</b>		<b>\$215,915</b>

Notes:

- 1) Local Impact assumes 8 lunches of non-local MREs costing \$7.33 per lunch.
- 2) Entertainment assumes 3 leaves to town for dinner, entertainment, & shopping.
- 3) Billeted, Barracks & Bivouac assumes 2-3 days at the beginning and end of AT in garrison or traveling and 10 days in field bivouac conditions.

Table 10-6 shows the total economic impacts of the annual training for a Combined Arms Battalion, when run through the 3-county IMPLAN model. The \$216,000 of direct impacts becomes \$426,000 of total impacts when indirect and induced impacts are calculated. An estimated \$110,000 in direct labor income generated by the training becomes \$176,000 in total labor income increase, and a total of 3.3 jobs are created through the annual training.

**Table 10-6. Total Economic Impacts, Combined Arms Battalion Annual Training**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	1.6	\$110,000	\$216,000
<b>Indirect Impacts</b>	0.8	\$33,000	\$105,000
<b>Induced Impacts</b>	0.9	\$33,000	\$105,000
<b>Total Impacts</b>	<b>3.3</b>	<b>\$176,000</b>	<b>\$426,000</b>
<b>Multipliers (SAM Type II)</b>	<b>2.03</b>	<b>1.60</b>	<b>1.97</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes:

- 1) Battalion assumed at 80% attendance or 669 soldiers, coming from another state.  
See Table 11-5 for details of direct impact components.
- 2) Employment includes all full, part-time, and seasonal jobs.
- 3) All dollar estimates in 2014 \$.

The third unit to be analyzed is an Armored Reconnaissance Regiment of 55 tracked vehicles, 95 wheeled vehicles and 414 soldiers. This unit generates a total cost of annual training of \$896,000, of which \$124,000 is local spending (Table 10-7).

Total Economic Impacts shown in Table 10-8 amount to \$245,000 in total output, \$101,000 in labor income, and 1.9 additional jobs.

**Table 10-7. Annual Training Costs & Local Impacts – Armored Recon Regiment**

@ 80% Attendance

**Annual Training (AT) Costs and Local Impacts - Armored Reconnaissance Regiment @ 80% Attendance**

	Number	Cost/mile	Annual		Cost Per		Local Impact Per Mile	Total Local Impacts
			# Miles	# Miles/ AT	Vehicle/ AT	Total Cost/ AT		
<b>Tracked Vehicles</b>	<b>55</b>							
Personnel and Equipment Carriers	25	\$8.85	220	185	\$1,638	\$40,947	\$0.68	\$3,141
Bradley series	26	\$141.98	175	150	\$21,297	\$553,717	\$3.60	\$14,052
Tank Retrievers	4	\$331.88	40	35	\$11,616	\$46,463	\$5.04	\$705
<b>Total Cost Tracked Vehicles</b>						<b>\$641,126</b>		<b>\$17,898</b>
<b>Wheeled Vehicles</b>	<b>95</b>							
High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	54	\$1.11	1,320	950	\$1,054	\$56,907	\$0.10	\$4,939
Medium Tactical Vehicles (MTV) Series	21	\$2.74	480	390	\$1,069	\$22,441	\$0.06	\$527
Heavy Expanded Mobile Tactical Truck (HEMTT) series	20	\$3.39	580	450	\$1,526	\$30,516	\$0.15	\$1,361
<b>Total Cost Wheeled Vehicles</b>						<b>\$109,863</b>		<b>\$6,827</b>
	Number	Cost/Day	# Days	Total Cost Per Soldier		Annual Training		Total Local Impacts
<b>Soldiers</b>	<b>414</b>							
Billeted	50	\$6.00	5	\$30		\$1,500		\$1,500
Barracks	365	\$2.17	5	\$11		\$4,160		\$4,160
Bivouacked	414	\$0.00	10	\$0		\$0		\$0
Mess Hall Cost	414	\$13.57	15	\$204		\$84,270		\$38,750
Dining Facility		\$170	15			\$2,550		\$2,550
Entertainment Spending	350	\$50.00	3	\$150		\$52,500		\$52,500
<b>Total Cost Soldiers</b>						<b>\$144,980</b>		<b>\$99,460</b>
<b>TOTAL COST ANNUAL TRAINING</b>						<b>\$895,969</b>		<b>\$124,186</b>

## Notes:

- 1) Local Impact assumes 8 lunches of non-local MREs costing \$7.33 per lunch.
- 2) Entertainment assumes 3 leaves to town for dinner, entertainment, & shopping.
- 3) Billeted, Barracks & Bivouac assumes 2-3 days at the beginning and end of AT in garrison or traveling, and 10 days in field bivouac conditions.

**Table 10-8. Total Economic Impacts, Armored Recon Regiment Annual Training**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	0.9	\$63,000	\$124,000
<b>Indirect Impacts</b>	0.5	\$19,000	\$61,000
<b>Induced Impacts</b>	0.5	\$19,000	\$60,000
<b>Total Impacts</b>	<b>1.9</b>	<b>\$101,000</b>	<b>\$245,000</b>
<b>Multipliers (SAM Type II)</b>	<b>2.03</b>	<b>1.60</b>	<b>1.97</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes:

- 1) Regiment assumed at 80% attendance or 414 soldiers.  
See Table 11-7 for details of direct impact components.
- 2) Employment includes all full, part-time, and seasonal jobs.
- 3) All dollar estimates in 2014 \$.

The next unit is an Artillery Battalion described in Table 10-9. At 80% attendance, it brings slightly fewer soldiers at 384 than the Armored Reconnaissance Regiment, and its economic impacts are very similar. Its total cost of annual training is much lower at \$473,000 due to fewer tracked vehicles, but its local spending is \$113,000.

The local spending multiplies into \$223,000 of total economic output, \$91,000 in increased labor income, and an additional 1.7 jobs in the region, as shown in Table 10-10.

**Table 10-9. Annual Training Costs & Local Impacts – Artillery Battalion**

@ 80% Attendance

	#	Cost/mile	Annual # Miles	# Miles/ AT	Cost Per Vehicle/ AT	Total Cost/ AT	Local Impact Per Mile	Total Local Impacts
<b>Tracked Vehicles</b>	<b>42</b>							
Personnel and Equipment Carriers	10	\$8.85	220	180	\$1,594	\$15,936	\$0.68	\$1,223
Artillery and Support Trucks	32	\$68.35	112	82	\$5,604	<u>\$179,342</u>	\$2.89	<u>\$7,571</u>
<b>Total Cost Tracked Vehicles</b>						<b>\$195,278</b>		<b>\$8,793</b>
<b>Wheeled Vehicles</b>	<b>120</b>							
High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	67	\$1.11	1,320	950	\$1,054	\$70,606	\$0.10	\$6,128
Medium Tactical Vehicles (MTV) Series	23	\$2.74	480	390	\$1,069	\$24,578	\$0.06	\$578
Heavy Expanded Mobile Tactical Truck (HEMTT) series	30	\$3.39	580	450	\$1,526	<u>\$45,774</u>	\$0.15	\$2,041
<b>Total Cost Wheeled Vehicles</b>						<b>\$140,958</b>		<b>\$8,747</b>
						<b>Total Cost/ Annual Training</b>		<b>Total Local Impacts</b>
<b>Soldiers</b>	<b>374</b>							
Billeted	50	\$6.00	5	\$30		\$1,500		\$1,500
Barracks	324	\$2.80	5	\$14		\$3,640		\$3,640
Bivouacked	374	\$0.00	10	\$0		\$0		\$0
Mess Hall Cost	374	\$13.57	15	\$204		\$76,128		\$35,006
Dining Facility		\$170	15			\$2,550		\$2,550
Entertainment Spending	350	\$50.00	3	\$150		<u>\$52,500</u>		<u>\$52,500</u>
<b>Total Cost Soldiers</b>						<b>\$136,318</b>		<b>\$95,196</b>
<b>TOTAL COST ANNUAL TRAINING</b>						<b>\$472,554</b>		<b>\$112,737</b>

## Notes:

- 1) Local Impact assumes 8 lunches of non-local MREs costing \$7.33 per lunch.
- 2) Entertainment assumes 3 leaves to town for dinner, entertainment, & shopping.
- 3) Billeted, Barracks & Bivouac assumes 2-3 days at the beginning and end of AT in garrison or traveling and 10 days in field bivouac conditions.

**Table 10-10. Total Economic Impacts, Artillery Battalion Annual Training**

Impact Type	Employment	Labor Income	Output
<b>Direct Impacts</b>	0.8	\$57,000	\$113,000
<b>Indirect Impacts</b>	0.4	\$17,000	\$55,000
<b>Induced Impacts</b>	0.5	\$17,000	\$55,000
<b>Total Impacts</b>	<b>1.7</b>	<b>\$91,000</b>	<b>\$223,000</b>
<b>Multipliers (SAM Type II)</b>	<b>2.03</b>	<b>1.60</b>	<b>1.97</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: 1) Battalion assumed at 80% attendance or 374 soldiers, coming from another state. See Table 11-9 for details of direct impact components

2) Employment includes all full, part-time, and seasonal jobs

3) All dollar estimates in 2014 \$.

**Table 10-11. Annual Training Costs & Local Impacts – Attack Aviation Battalion**

@ 80% Attendance

**Annual Training (AT) Costs and Local Impacts - Attack Aviation Battalion @ 80% Attendance**

	Number	Cost/hour	Annual # Hours	# Hours/ AT	Cost Per Aircraft/ AT	Total Cost/ AT	Local Impact Per Hour	Total Local Impacts
<b>AH-64 Apache Helicopters</b>	<b>16</b>	<b>\$16,489</b>	<b>153</b>	<b>35</b>	<b>\$577,122</b>	<b>\$9,233,951</b>	<b>\$677.98</b>	<b>\$379,668</b>
	Number	Cost/mile	Annual # Miles	# Miles/ AT	Cost Per Vehicle/ AT	Total Cost/ AT	Local Impact Per Mile	Total Local Impacts
<b>Wheeled Vehicles</b>	<b>67</b>							
High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	32	\$1.11	850	520	\$577	\$18,459	\$0.10	\$1,602
Medium Tactical Vehicles (MTV) Series	21	\$2.74	425	300	\$823	\$17,274	\$0.06	\$405
Heavy Expanded Mobile Tactical Truck (HEMTT) series	14	\$3.39	580	450	\$1,526	<u>\$21,361</u>	\$0.15	<u>\$953</u>
<b>Total Cost Wheeled Vehicles</b>						<b>\$57,093</b>		<b>\$2,960</b>
	Number	Cost/Day	# Days	Total Cost Per Soldier	Total Cost/ Annual Training	Total Local Impacts		
<b>Soldiers</b>	<b>320</b>							
Billeted	65	\$6.00	13	\$78	\$5,148	\$5,148		
Barracks	230	\$2.17	13	\$28	\$6,760	\$6,760		
Bivouacked	25	\$0.00	10	\$0	\$0	\$0		
Mess Hall Cost	320	\$13.57	13	\$176	\$56,451	\$25,958		
Dining Facility		\$170.00	13		\$2,210	\$2,210		
Entertainment Spending	300	\$25.00	10	\$250	<u>\$75,000</u>	<u>\$75,000</u>		
<b>Total Cost Soldiers</b>					<b>\$145,569</b>	<b>\$115,076</b>		
<b>TOTAL COST ANNUAL TRAINING</b>					<b>\$9,436,613</b>	<b>\$497,704</b>		

## Notes:

- 1) Local Impact assumes 8 lunches of non-local MREs costing \$7.33 per lunch.
- 2) Entertainment assumes 10 leaves to town for occasional dinner, entertainment, & shopping.
- 3) Billeted, Barracks & Bivouac assumes one day at the beginning and end of AT traveling and 13 days in garrison with only fuel and ammunitions support personnel remaining in field bivouac conditions for 10 days

The fifth unit analyzed is an Attack Aviation Battalion with 16 Apache helicopters, 67 wheeled vehicles, and 320 personnel. Due to the extremely high cost of operating the aircraft, the annual training has total costs of \$9.44 million, of which an estimated \$498,000 are local expenditures. These direct impacts generate a total of \$982,000 in economic output, \$406,000 of labor income, and 7.6 additional jobs in the regional economy (Table 10-12).

**Table 10-12. Total Economic Impacts, Attack Aviation Battalion Annual Training**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	3.7	\$254,000	\$498,000
<b>Indirect Impacts</b>	1.8	\$77,000	\$243,000
<b>Induced Impacts</b>	2.1	\$75,000	\$241,000
<b>Total Impacts</b>	<b>7.6</b>	<b>\$406,000</b>	<b>\$982,000</b>
<b>Multipliers (SAM Type II)</b>	<b>2.03</b>	<b>1.60</b>	<b>1.97</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: 1) Battalion assumed at 80% attendance or 320 soldiers, coming from another state. See Table 11-11 for details of direct impact components  
 2) Employment includes all full, part-time, and seasonal jobs  
 3) All dollar estimates in 2014 \$.



**Table 10-13. Annual Training Costs & Local Impacts – Medium Lift Company**

								@ 80% Attendance	
	Number	Cost/hour	Annual # Hours	# Hours/ AT	Cost Per Aircraft/ AT	Total Cost/ AT	Local Impact Per Hour	Total Local Impacts	
<b>UH-60 Blackhawk Helicopters</b>	<b>8</b>	\$5,746	193	32	\$183,884	<b>\$1,471,073</b>	\$342.69	<b>\$87,728</b>	
	Number	Cost/mile	Annual # Miles	# Miles/ AT	Cost Per Vehicle/ AT	Total Cost/ AT	Local Impact Per Mile	Total Local Impacts	
<b>Wheeled Vehicles</b>	<b>4</b>								
High Mobility Multipurpose Wheeled Vehicle (HMMWV) Series	2	\$1.11	800	400	\$444	\$887	\$0.10	\$77	
Medium Tactical Vehicles (MTV) Series	2	\$2.74	480	320	\$877	<u>\$1,755</u>	\$0.06	<u>\$41</u>	
<b>Total Cost Wheeled Vehicles</b>						<b>\$2,642</b>		<b>\$118</b>	
	Number	Cost/Day	# Days	Total Cost Per Soldier	Total Cost/ Annual Training	Total Local Impacts			
<b>Soldiers</b>	<b>56</b>								
Billeted	18	\$6.00	13	\$108	\$1,404	\$1,404			
Barracks	38	\$2.17	13	\$82	\$1,352	\$1,352			
Bivouacked	0	\$0.00		\$0	\$0	\$0			
Mess Hall Cost	56	\$13.57	13	\$176	\$9,879	\$4,543			
Dining Facility		\$170.00	13		\$2,210	\$2,210			
Entertainment Spending	50	\$25.00	10	\$250	<u>\$12,500</u>	<u>\$12,500</u>			
<b>Total Cost Soldiers</b>					<b>\$27,345</b>	<b>\$22,009</b>			
<b>TOTAL COST ANNUAL TRAINING</b>					<b>\$1,501,060</b>	<b>\$109,855</b>			

## Notes:

- 1) Local Impact assumes 8 lunches of non-local MREs costing \$7.33 per lunch.
- 2) Entertainment assumes 10 leaves to town for occasional dinner, entertainment, & shopping.
- 3) Billeted, Barracks & Bivouac assumes one day at the beginning and end of AT traveling and 13 days in garrison.

**Table 10-14. Total Economic Impacts, Medium Lift Company Annual Training**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	0.8	\$56,000	\$110,000
<b>Indirect Impacts</b>	0.4	\$17,000	\$54,000
<b>Induced Impacts</b>	0.5	\$17,000	\$53,000
<b>Total Impacts</b>	<b>1.7</b>	<b>\$90,000</b>	<b>\$217,000</b>
<b>Multipliers (SAM Type II)</b>	<b>2.03</b>	<b>1.61</b>	<b>1.97</b>

Source: Minnesota IMPLAN Group, Inc., 2013

Notes: 1) Battalion assumed at 80% attendance or 56 soldiers, coming from another state. See Table 11-13 for details of direct impact components

2) Employment includes all full, part-time, and seasonal jobs

3) All dollar estimates in 2014 \$.

A Medium Lift Company consists of 8 Blackhawk helicopters, 4 wheeled vehicles, and 56 soldiers (Table 10-13). Its annual training costs a total of \$1.5 million, with \$110,000 in local expenditures. A full 98% of the total costs are associated with the aircraft.

Table 10-14 shows the unit generates total economic impacts of \$217,000 in economic output, \$90,000 in labor income, and 1.7 additional jobs.

**Table 10-15. Annual Training Costs & Local Impacts – Marine Tank Company**

@ 80% Attendance

	Number	Cost/mile	Annual # Miles	# Miles/ AT	Cost Per Vehicle/ AT	Total Cost/ AT	Local Impact Per Mile	Total Local Impacts
<b>Tracked Vehicles</b>	<b>9</b>							
Tank Retrievers	1	\$331.88	70	40	\$13,275	\$13,275	\$5.04	\$201
M1 series tanks	8	\$272.55	210	140	\$38,157	<u>\$305,257</u>	\$13.56	<u>\$15,186</u>
<b>Total Cost Tracked Vehicles</b>						<b>\$318,532</b>		<b>\$15,388</b>
<b>Wheeled Vehicles</b>	<b>10</b>							
Heavy	2							
Light	8							
High Mobility Multipurpose Wheeled Vehicle (HMMVV) Series	4	\$1.11	1,320	850	\$943	\$3,772	\$0.10	\$327
Medium Tactical Vehicles (MTV) Series	4	\$2.74	480	240	\$658	\$2,630	\$0.06	\$62
Heavy Expanded Mobile Tactical Truck (HEMTT) series	2	\$3.39	580	380	\$1,288	<u>\$2,577</u>	\$0.15	<u>\$115</u>
<b>Total Cost Wheeled Vehicles</b>						<b>\$8,979</b>		<b>\$504</b>
						<b>Total Cost/ Annual Training</b>		<b>Total Local Impacts</b>
<b>Soldiers</b>	<b>120</b>							
Billeted	8	\$6.00	4	\$24		\$192		\$192
Barracks	112	\$2.17	4	\$9		\$1,040		\$1,040
Bivouacked	120	\$0.00	11	\$0		\$0		\$0
Mess Hall Cost	120	\$13.57	15	\$204		\$24,426		\$11,232
Dining Facility		\$170.00	15			\$2,550		\$2,550
Entertainment Spending	75	\$50.00	2	\$100		<u>\$7,500</u>		<u>\$7,500</u>
<b>Total Cost Soldiers</b>						<b>\$35,708</b>		<b>\$22,514</b>
<b>TOTAL COST ANNUAL TRAINING</b>						<b>\$363,218</b>		<b>\$38,406</b>

## Notes:

- 1) Local Impact assumes 8 lunches of non-local MREs costing \$7.33 per lunch.
- 2) Entertainment assumes 2 leaves to town for dinner, entertainment, & shopping.
- 3) Billeted, Barracks & Bivouac assumes 2 days at the beginning and end of AT in garrison or traveling and 11 days in field bivouac conditions.

The seventh and last unit analyzed was a Marine Tank Company. It consists of 8 M1 tanks, a tank retriever, 10 wheeled vehicles, and 120 personnel as shown in Table 10-15. Total costs for the annual training are \$363,000, of which \$38,000 are estimated to be local expenditures. Again, most of the total cost is associated with operating the tanks.

The annual training exercise generates a total of \$76,000 in economic output, \$32,000 in labor income, and 0.6 jobs as shown in Table 10-16.

**Table 10-16. Total Economic Impacts, Marine Tank Company Annual Training**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
<b>Direct Impacts</b>	0.3	\$20,000	\$38,000
<b>Indirect Impacts</b>	0.1	\$6,000	\$19,000
<b>Induced Impacts</b>	0.2	\$6,000	\$19,000
<b>Total Impacts</b>	<b>0.6</b>	<b>\$32,000</b>	<b>\$76,000</b>
<b>Multipliers (SAM Type II)</b>	<b>2.03</b>	<b>1.60</b>	<b>1.97</b>

**Source:** Minnesota IMPLAN Group, Inc., 2013

**Notes:** 1) Battalion assumed at 80% attendance or 120 soldiers, coming from another state. See Table 11-15 for details of direct impact components  
 2) Employment includes all full, part-time, and seasonal jobs  
 3) All dollar estimates in 2014 \$.

## Author's Note

This is the first time in fifteen years of consulting that I have found it useful to include a personal note in a technical report. However, in this case it may be useful to the reader's interpretation of the economic analysis.

I am a product of the Vietnam era. While in high school I saw graduates coming home to my small town in coffins. I felt a patriotic urge to participate in my generation's war, but I had grizzled veterans of WWII tell me to take a pass, that this wasn't my war to fight. Meanwhile, young men my age were drafted, given basic training and perhaps Advanced Infantry Training, and then sent off to fight a jungle war against guerillas they could not identify. I was part of the Draft Lottery of 1972, and it was only through the luck of my birthday drawing number 316 that I avoided the war. My brother was drafted in 1969 and only avoided Vietnam because our mother made us take typing class in high school and he could type forty words a minute.

With this life experience, please imagine how shocked I was to tour the Orchard Combat Training Center. Here are 20 ranges shooting into a common landing area, and 22 maneuver areas for practicing group exercises. Soldiers can practice everything from shooting rocket grenades to blowing an opening in a wall with plastic explosives. They can practice entering apartment buildings in a shoot house, with Middle Eastern music blaring and pop-up targets that may be a terrorist or a kid with a soccer ball. Afterwards their performance is evaluated using videotape in an adjacent classroom. There is even a fifteen mile long practice road with IEDs which blow talcum powder on the vehicles when hit. On Range 1, tanks, personnel carriers, and helicopters attack targets simultaneously, and practice their communications. It warmed my heart to learn that today U.S. soldiers receive the best training possible in a terrain similar to what they will encounter. Not only do they have a good chance to survive, our soldiers have a high likelihood of prevailing in any conflict. Sometimes hard work and preparation are a kindness. This citizen is glad we learned from our mistakes in Vietnam.

The second point I would like to make here is about the organizational culture I encountered at the Idaho National Guard. I met many senior officers, program managers, and armory officers in the course of gathering information for this study. I was pleased by how everyone I met was professional, positive, and pleasant to interact with. All seemed to sincerely like their work and to understand their role within a larger organization. All were eager to help me. As someone who has worked with dozens of government organizations at all levels across Idaho in my work with the Idaho Rural Partnership, I can attest that it is rare to find an organization of the quality of the Idaho National Guard. It reflects highly on every member of the Guard, from General Saylor to the ordinary soldier. I simply want the reader to know this about the Guard.

Lastly, my thanks to all who contributed to this study, and there were many. Charlie Baun deserves a special thanks for his vision in getting this study done.