

Environmental Assessment for Lower Garrison Development Camp Williams Utah National Guard

Environmental Resources Management
UTAH NATIONAL GUARD

12953 Minuteman Drive
Draper, UT 84020



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1 **ENVIRONMENTAL ASSESSMENT SIGNATURE PAGE**

2 LEAD AGENCY: National Guard Bureau (NGB)
3 COOPERATING AGENCIES: None
4 TITLE OF PROPOSED ACTION: Lower Garrison Development
5 AFFECTED JURISDICTION: Camp Williams, Bluffdale, Salt Lake County, Utah
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9

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1 **DOCUMENT DESIGNATION: Final Environmental Assessment**

2 ABSTRACT: The National Guard Bureau (NGB) and Utah Army National Guard (UTARNG)
3 propose to implement the Lower Garrison Development to achieve the goal of handling the
4 installation’s capabilities to meet UTARNG’s training needs. The Proposed Action consists of
5 the 19th Special Forces Group Readiness Center identified for construction and associated road
6 and utility infrastructure. These projects impact approximately 769,000 square feet (ft²)
7 (18 acres) of the approximately 57-acre Proposed Action site at Camp Williams. The Proposed
8 Action is necessary to allow the UTARNG to gain efficiency and meet specific mission
9 requirements for units that train at the Camp Williams site.

10 This EA evaluates the individual and cumulative effects of the Proposed Action and the No
11 Action Alternative with respect to the following criteria: geographic setting and land use, air
12 quality, noise, geology, soils, topography, water resources, biological resources, cultural
13 resources, socioeconomic environment, infrastructure, and hazardous and toxic
14 materials/wastes.

15 Based on the findings of this EA, there would be no significant impact to environmental
16 resources resulting from the Proposed Action or the No Action Alternative. A draft Finding of
17 No Significant Impact has been prepared to accompany this EA, which concludes preparation of
18 an Environmental Impact Statement is not required for this Proposed Action.

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Executive Summary

1 ES.1 Introduction

2 One of the primary goals of the Utah Army National Guard (UTARNG) is to provide the
3 support facilities necessary to ensure the long-term viability, sustainability, and value of the
4 proposed facilities and improvements as a viable training site. The Real Property Development
5 Plan (RPDP) serves as the planning process to define the facility and infrastructure construction
6 that would be required to achieve the goal of ensuring Camp Williams' capabilities to meet
7 UTARNG's training needs. The RPDP, developed in accordance with NG PAM 210-20, *Real*
8 *Property Development Planning Procedures for the Army National Guard*, was developed and
9 approved in December 2012 through this planning program.

10 UTARNG initiated development planning for Camp Williams in March 2011 by commissioning
11 a Range Master Plan (EFT Architects, 2014) and a Long-Range Master Plan (LRMP) for the non-
12 range cantonment areas of Camp Williams. The Camp Williams Lower Garrison Development
13 is a component of the LRMP (EFT Architects, 2012a) for the greater Camp Williams cantonment
14 area, developed to allow UTARNG to gain efficiency and meet specific mission requirements
15 for units that train at the Camp Williams site.

16 This Environmental Assessment (EA) provides an evaluation of the environmental impacts
17 associated with three near-term development projects proposed for the Lower Garrison area in
18 accordance with implementation of the UTARNG LRMP (EFT Architects, 2012a) (see Table ES-
19 1). This document is intended to be an assessment of components of the development plan that
20 are or will be funded in the near term, namely the 19th Special Force Group (SFG) Readiness
21 Center (October 2017), utility and road infrastructure (October 2015). These near-term projects
22 are evaluated in the context of a greater plan of development for the Lower Garrison, which
23 includes other proposed projects that are reasonably foreseeable but unfunded and uncertain.
24 The UTARNG will conduct additional NEPA analysis in coordination with Army National
25 Guard (ARNG)-ILE for each of these other projects included in the development plan at the
26 appropriate time, as needed.

27 ES.2 Purpose and Need

28 The purpose of the Proposed Action is to provide infrastructure and space for UTARNG Special
29 Forces units to achieve proficiency in training tasks and to support ongoing missions. These
30 units are currently located in facilities that are inadequate, aged, and crowded, providing no
31 room for expansion. Special Forces are currently housed in ten (10) buildings scattered around
32 Camp Williams and two readiness centers located in Lehi and Ogden. These facilities do not
33 meet the training, administrative, and storage space requirements as established in NGR 415-10,
34 *Army National Guard Facilities Construction*, and NG PAM 415-12, *Army National Guard Facilities*
35 *Allowances*. There is limited military vehicle and off-street parking. Other deficiencies include
36 heating, plumbing, and electrical systems. UTARNG inspected the facilities and found them
37 lacking in essential fire detection and suppression systems and required structural
38 footings/foundation/flexible diaphragm for the seismic conditions present along the Wasatch

1 Front (fault line). Lastly, lack of adequate classrooms, supply rooms, arms vaults, showers,
 2 kitchen facilities, and parking areas adversely affect the training and quality of life of current
 3 units and make meeting their mission-essential training requirements difficult, if not
 4 impossible. Additionally, the Proposed Action will provide supporting infrastructure for both
 5 the SFG Readiness Center and anticipated future development in the Lower Garrison.

6 By implementing the Proposed Action, UTARNG would provide the training and support
 7 facilities necessary to ensure long-term viability and sustainability, by providing assets
 8 necessary to meet its readiness, recruiting, retention, and training objectives. Lastly, by building
 9 the critical infrastructure for the Lower Garrison area, UTARNG would meet current building
 10 standards set forth in National Guard Bureau (NGB) pamphlet PAM 415-12, *Army National*
 11 *Guard Facilities Allowances* dated 23 July 2011.

12 ES.3 Proposed Action and Alternatives

13 ES.3.1 Proposed Action

14 The Proposed Action is to construct the 19th SFG Readiness Center and associated road and
 15 utility infrastructure that supports this facility. The infrastructure design is consistent with the
 16 long-term Lower Garrison Development plan and will support future build-out. The proposed
 17 projects are summarized in Table ES-1. The total amount of surface disturbance under the
 18 Proposed Action Site would be approximately 769,000 square feet (ft²) (18 acres) of the
 19 approximate 2,497,165-ft² (57-acre) project area.

TABLE ES-1
List of Proposed Projects

No.	Proposed Projects	Planned Fiscal Year for Construction
1	Construction and use of road system for travel of privately owned vehicles and unit equipment	2016
2	Construction and use of utility infrastructure for the SFG Readiness Center and future facilities	2016
3	Construction and use of 19 th Special Forces Group (SFG) Readiness Center (490601)	2017

20 ES.3.2 Alternatives Considered and Eliminated from Analysis

21 UTARNG evaluated the following three scenarios and subsequently eliminated them as
 22 alternatives to the Proposed Action.

23 ES.3.2.1 Use of another Location at Camp Williams

24 UTARNG made efforts to site the proposed project so that maximum use was made of existing
 25 infrastructure, landforms, and previously disturbed land areas, thereby reducing construction
 26 costs and further minimizing the potential for environmental impact. Training facilities are
 27 located or grouped to increase usage of common parking areas, administration facilities,
 28 infrastructure components, and to further reduce overall development needs and costs
 29 (i.e., redundancy of facilities) (EFT Architects, 2012a).

1 UTARNG determined that use of another location would result in greater impacts. Therefore,
2 this alternative was eliminated from further consideration for the following reasons: (1) no other
3 current land is available at Camp Williams to centrally satisfy the current requirements, (2) the
4 current leadership and future stationing plan does not show any available sites to satisfy these
5 requirements with the exception of the proposed site, and (3) due to current and future
6 development around the proposed site, the benefits to UTARNG would be positive if these
7 assets are located at the proposed site versus another site.

8 **ES.3.2.2 Use of Other Military Installations**

9 Use of another National Guard or Department of Defense (DoD) facility was eliminated from
10 consideration because there is not another nearby location that could accommodate the project
11 components without causing logistical disruptions to training requirements. Furthermore, there
12 are no available grounds within the current population base of the UTARNG or at other
13 DoD facilities that have sufficient infrastructure, and within a reasonable distance of travel
14 for training.

15 **ES.3.2.3 Purchase Additional Land**

16 No funds are available to UTARNG to purchase any additional property or land that can satisfy
17 project requirements. Therefore, this option was eliminated from consideration.

18 **ES.3.3 No Action Alternative**

19 The No Action Alternative reflects the status quo at Camp Williams. Under the No Action
20 Alternative, UTARNG would not construct the three proposed projects associated with the
21 Lower Garrison Development. Continued use of inadequate training areas and facilities would
22 not support the UTARNG mission and would not meet the purpose of or need for the Proposed
23 Action.

24 **ES.4 Environmental Consequences**

25 Table ES-2 summarizes the consequences of the Proposed Action and the No Action
26 Alternative, both of which are discussed in subsequent subsections.

TABLE ES-2
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Geographic Setting and Location	Long-term, less than significant adverse impacts through removal of some vegetative cover to support new buildings. Implementing appropriate setback criteria and screening in site design would reduce potential long-term, less than significant adverse impacts on the potential encroachment on adjacent city.	Facilities would not be constructed at Camp Williams resulting in no impacts.
Land Use	Conversion of 57 acres of currently undeveloped land. Short- to long-term, less-than-significant adverse impacts on land use associated with construction and operational activities.	No impacts on land use. UTARNG would continue to use inadequate facilities that do not meet the training, administrative, and storage space requirements.
Air Quality	Short-term, less-than-significant adverse impacts associated with fugitive dust during construction activities. Impacts would be reduced through BMPs, including water application. Long-term, less-than-significant adverse impacts associated with the creation of permanent sources of air emissions. UTARNG prepared a General Conformity Record of Nonapplicability for the Proposed Action.	No change in current conditions or operations resulting in no impacts.
Noise	Construction-related noise could produce short-term, less-than-significant adverse impacts. BMPs would reduce impacts by limiting noise to daylight hours during weekdays.	No new construction or development would result in no new noise impacts. Noise would continue from current operational activities.
Geology, Topography, and Soils	Disturbance of up to 57 acres of existing soils for clearing, paving, and/or grading. Short-term, less-than-significant adverse impacts associated with potential erosion and sedimentation. Similar impact associated with trenching activities needed for the placement of utilities. Impacts would be reduced through BMPs.	No impacts as a result of no changes to current conditions.
Water Resources	Construction activities and new operations could contribute to short- and long-term, less-than-significant adverse impacts to the nearby Provo Reservoir Canal and Utah Lake Distributing Canal. The use of BMPs would reduce impacts during and following construction.	No impacts to nearby surface waters.
Biological Resources	Approximately 18 acres of vegetation would receive long-term, less-than-significant adverse impacts with the implementation of the Proposed Action. Short- and long-term, less-than-significant adverse impacts on wildlife species would be expected during construction activities with certain species returning after development while others permanently relocated. Construction activities could also reduce numbers of less-mobile species through collision or demolition of habitat. Habitat fragmentation from implementation of the Proposed Action could create long-term, less-than-significant adverse impacts on wildlife.	No impacts would be expected and current habitat would remain.

TABLE ES-2
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Cultural Resources	No impacts. The State Historic Preservation Office (SHPO) has concurred with this determination (see Appendix C).	No impacts as no ground-disturbing activities would occur.
Socioeconomics (including Environmental Justice and Protection of Children)	Short- and long-term, <u>positive</u> impacts due to increases in construction and manufacturing employment. New jobs would be associated with construction of the proposed projects. No adverse impacts that could affect low-income populations or children.	Potential short- and long-term, less-than-significant adverse impacts by failing to provide secure job markets in the region with respect to UTARNG jobs.
Utilities	Utility resources would need to be expanded to support new development. Negligible to long-term, less than significant adverse impacts on utilities would be anticipated.	Utility usage would continue as under current conditions.
Transportation and Traffic	Short-term, less-than-significant adverse impacts due to road closures and increased construction traffic.	No new construction or development would result in no new impacts to transportation and traffic.
Hazardous and Toxic Materials/Wastes	Short-term, less-than-significant adverse impacts could result from the use of hazardous materials during construction activities. Use of personal protective equipment, monitoring and adherence to Occupational Safety and Health Administration (OSHA) and UTARNG safety requirements would reduce potential risks.	No new impacts. Existing hazardous materials/waste management plans would continue to be implemented at UTARNG.

1 ES.4.1 Consequences of the Proposed Action

2 Minor, less-than-significant adverse impacts would be associated with land use, air quality,
3 noise, geology, topography, and soils, water resources, biological resources, infrastructure, and
4 hazardous and toxic materials/waste. These impacts, however, would be reduced through the
5 use of appropriate best management practices (BMPs) described in Table ES-3.

6 The Proposed Action involves the construction of critical infrastructure, future facilities, and
7 road networks. Positive long-term impact on the local economy from construction-related jobs
8 can be expected over the project implementation timeframe.

9 There would be beneficial impacts on utilities (e.g., wastewater, energy, water, etc.) as new
10 facilities are constructed. The Proposed Action expansion of the facility would present the most
11 efficient use of government resources as operations are streamlined and co-located.

12 ES.4.2 Consequences of the No Action Alternative

13 Under the No Action Alternative, conditions and facilities would remain as they are at Camp
14 Williams. No impacts would occur on any resource areas. There would be no positive impact on
15 the local economy.

1 **ES.5 Conclusions**

2 This EA describes the comprehensive evaluation of the existing conditions and environmental
3 consequences of implementing the Proposed Action and the No Action Alternative, as required
4 by the National Environmental Policy Act of 1969 (NEPA).

5 Based on the findings of this, there would be no significant adverse impact to environmental
6 resources resulting from the Proposed Action or the No Action Alternative. A draft Finding of
7 No Significant Impact has been prepared to accompany this EA, which concludes preparation of
8 an Environmental Impact Statement is not required for this Proposed Action.

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- G Record of Nonapplicability

Acronyms and Abbreviations

ACM	asbestos-containing material
AR	Army Regulation
ARNG	Army National Guard
ATFP	Anti-terrorism Force Protection
BMP	best management practice
CAA	Clean Air Act
CEQ	President's Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CH ₄	methane
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CSMS	Combined Support Maintenance Shop
DNR	Department of Natural Resources
DoD	Department of Defense
EA	Environmental Assessment
EBS	Environmental Baseline Survey
ECOP	Environmental Condition of Property
EISA	Energy Independence and Security Act
EO	Executive Order
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FFSL	Forestry, Fire, and State Lands
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act of 1981
ft ²	square foot (feet)
FY	fiscal year
GHG	greenhouse gas
gpm	gallon(s) per minute
HAP	hazardous air pollutant
INRMP	Integrated Natural Resources Management Plan
JFHQ	Joint Forces Headquarters

LBP	lead-based paint
LEED	Leadership in Energy and Environmental Design
LRMP	Long-Range Master Plan
$\mu\text{g}/\text{m}^3$	microgram(s) per cubic meter
MEC	munitions of explosive concern
MILCON	Military Construction
MRS	Munitions Response Site
MWR	Morale, Welfare, and Recreation
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NGB	National Guard Bureau
NO_2	nitrogen dioxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSA	National Security Agency
O_3	ozone
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
percent g	percentage of the force of gravity
PIF	Partners in Flight
PM_{10}	particulate matter less than 10 micrometers in diameter
$\text{PM}_{2.5}$	particulate matter less than 2.5 micrometers in diameter
ppb	part(s) per billion
ppm	part(s) per million
REC	Record of Environmental Consideration
ROI	region of influence
SFG	Special Forces Group
SHPO	State Historic Preservation Office
SO_2	sulfur dioxide
SR	State Road
SSE	small source exemption
SWPPP	Stormwater Pollution Prevention Plan
UDAQ	Utah Department of Air Quality
UDWR	Division of Wildlife Resources
UGS	Utah Geological Survey

USACE	United States Army Corps of Engineers
USC	United States Code
USCB	United States Census Bureau
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UTARNG	Utah Army National Guard
VOC	volatile organic compound

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1.0 Purpose of and Need for the Proposed Action

1.1 Introduction

This Environmental Assessment (EA) has been prepared by the Utah Army National Guard (UTARNG) to evaluate the potential environmental, cultural, and socioeconomic impacts associated with near-term development projects proposed for the Lower Garrison area at Camp Williams near Bluffdale City, Utah. This EA has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), Section 102(2)(C); the President's Council on Environmental Quality's (CEQ) *Regulations for Implementing the Procedural Provisions of NEPA*, 40 Code of Federal Regulations (CFR) Parts 1500 through 1508; and *Environmental Analysis of Army Actions*, 32 CFR Part 651.

UTARNG proposes to enhance its training capabilities in Utah through the construction of a new 19th Special Forces Group (SFG) Readiness Center facility and associated road and utility infrastructure to meet doctrinal requirements of the U.S. Army. Section 1.0 of this EA provides background on UTARNG and Camp Williams and discusses the purpose and need for the proposed projects. Section 2.0 provides the description of Proposed Action and alternatives and examines proposed projects and viable alternatives to these projects as part of NEPA, as amended (42 United States Code [USC] 4321-4347). Section 3.0 describes the current environmental conditions of the areas that would be affected if the Proposed Action is implemented. Section 4.0 identifies the direct, indirect, and cumulative effects of the Proposed Action and alternatives of each of the resource areas previously described in Section 3.0. Section 5.0 compares and contrasts the environmental effects of the alternatives. Lastly, Sections 6.0, 7.0, and 8.0 provide the references, list of preparers, and agencies and individuals consulted.

1.1.1 Background

The mission of UTARNG is to provide properly trained and equipped units available for prompt mobilization for war, national and domestic emergency, or as otherwise needed as required by both federal and state laws, and as directed by the Secretary of Defense pursuant to Department of Defense (DoD) Directive 5105.77, National Guard Bureau (NGB). The Utah National Guard comprises both Army and Air National Guard components, which support federal and state constitutional authority with an organized military force of citizen soldiers. The primary training locations of the Utah National Guard include Camp W. G. Williams and the Dugway Proving Grounds. UTARNG organizes, trains, and equips units for the conduct of State operations in support of the governor of Utah and, if federalized, is prepared to mobilize, deploy, fight, and win on the modern battlefield in support of wartime operations. UTARNG has six Major Subordinate Commands within the state organization, which include the following:

- 97th Troop Command
- 19th Special Forces Group (SFG) (Airborne)
- 211th Aviation Group
- 115th Engineer Group (Construction)

- 1 • 300th Military Intelligence Brigade
- 2 • I Corps Artillery

3 The largest National Guard training center in Utah is the Camp W.G. Williams Utah Army
4 National Guard located at the south end of the Salt Lake Valley. Encompassing nearly
5 30,000 acres, Camp Williams serves not only as a major training site for Utah National Guard
6 units, but also for units throughout the United States and some foreign nations. In addition to
7 weapons ranges, battle courses, and many outdoor training facilities, Camp Williams also has
8 maintenance facilities, troop support capabilities, and extensive classroom facilities. Camp
9 Williams is home to a Marine Corps Reserve unit and UTARNG's 640th Regimental Regional
10 Training Institute, which trains National Guard soldiers from all western states, including
11 Hawaii, and Guam. The Headquarters of the Utah National Guard is at the Draper
12 Headquarters Complex located next to Interstate-15 in the southern end of the Salt Lake Valley.
13 This extensive facility is also home to several major commands and separate units.

14 The Army National Guard (ARNG) master planning process follows NGR 210-20, *Real Property*
15 *Development Planning for the Army National Guard*, and NG PAM 210-20, *Real Property*
16 *Development Planning Procedures for the Army National Guard*. The Real Property Development
17 Plan (RPDP) is developed at the State level within the National Guard and includes, as a
18 minimum, a TAG narrative to provide vision and guidance, a tabular report (the TAB) which
19 provides current conditions data, a Long Range Construction Plan (LRCP) with prioritized out-
20 year construction projects, and Site Plans for the proposed projects. This RPDP outlines the
21 facility and infrastructure construction required to achieve the goal of improving UTARNG's
22 capabilities and training needs through development of the Camp Williams Lower Garrison
23 area. The proposed Lower Garrison Development was included in the UTARNG's RPDP
24 submission as the Site Plan portion for the Camp Williams cantonment area, and identified in
25 UTARNG's Long-Range Master Plan (LRMP) and in the Future Years Defense Program for
26 fiscal years 2017 to 2029. The project description and components are listed in the LRMP
27 document, dated December 2012 (EFT Architects, 2012a). This Plan outlines the general future
28 construction and plans for improvements and facilities within this outlined area; however, the
29 specific development plan has been modified slightly as presented in this document. A
30 conceptual drawing for the Proposed Action, scope of construction, site photographs, and main
31 body of the LRMP are included in Appendix A.

32 The 28 Sep 2012 ACSIM Memorandum, Facility Investment Strategy (F/S) Guidance Fiscal Year
33 (FY15-19), establishes a holistic approach for determining facility requirements in the Army. It
34 sets the four basic tenets of sustainment through maintaining facilities to meet their design life,
35 disposal of unneeded structures, restoration and modernization of most needed facilities, and
36 new construction where critical. In order to meet these criteria, "projects submitted for
37 MILCON validation and funding consideration must be fully supported and documented in the
38 Installation Real Property Master Plan, the Installation Status Report (ISR), and the Real
39 Property Planning and Analysis System (RPLANS)." The facilities proposed here meet the four
40 basic tenets and have been documented using the above planning process.

41 The proposed improvements in the Proposed Action would benefit the SFG units in the short
42 term. The associated infrastructure would benefit long-term development for the following
43 additional units:

- 44 • Utah Joint Forces Headquarters (JFHQ)

- 1 • Camp Williams Training Site
- 2 • 204th Maneuver Enhancement Brigade
- 3 • 65th Fires Brigade
- 4 • 300th Military Intelligence Brigade
- 5 • 640th Regional Training Institute
- 6 • Utah Counter Drug Mission
- 7 • Unit Training and Equipment Sites for UTARNG
- 8 • Family Readiness
- 9 • Marine Corps and Reserve Components

10 **1.1.2 Location of the Lower Garrison Improvement Project Area**

11 The Proposed Action site is located in Utah County, Utah, near Bluffdale City. The Proposed
12 Action site consists of an approximately 57 acres for the SFG Readiness Center and associated
13 road and utility infrastructure (see Figure 1-1). The entire 291-acre Lower Garrison
14 Development area is presented in Figure 1-2.

15 The Lower Garrison Development site is located southeast of Bluffdale City in Township 4
16 South, Range 1 West, Salt Lake Meridian. It is adjacent to the east of State Road (SR) 68, also
17 referred to as Redwood Road, which serves as the primary road access for the facility. The site is
18 bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the
19 south, and the Beef Hollow drainage to the north. The site is contiguous with the Camp
20 Williams cantonment area.

21 **1.2 Purpose and Need**

22 One of the primary goals of UTARNG is to provide the support facilities necessary to ensure the
23 long-term viability, sustainability, and value of the proposed facilities and improvements to
24 Camp Williams as a viable training site. An ongoing planning program defines the facility and
25 infrastructure construction that would be required to achieve the goal of handling the
26 installation's capabilities to meet UTARNG's training needs. The Real Property Development
27 Plan, including the LRMP and submitted to the National Guard Bureau (NGB) annually for
28 review, was developed through this planning program.

29 UTARNG initiated development planning for Camp Williams in March 2011 and identified the
30 Camp Williams Lower Garrison Development as an important component project. Initiation of
31 this plan would allow UTARNG to gain efficiency and meet specific mission requirements for
32 units that train at the Camp Williams site.

33 The overall development includes construction of readiness center(s), unit training facilities,
34 cold storage, equipment storage, a combined surface maintenance shop, United States Army
35 Morale, Welfare, and Recreation (MWR) sites, JFHQ, renewable energy sites, with supporting
36 road and utility infrastructure. The Proposed Action would provide unit-specific readiness
37 center space for the 19th SFG of UTARNG. Currently, the 19th SFG is housed in outdated and
38 unsuitable facilities at Camp W.G. Williams that do not meet the administrative and training
39 needs of the unit. Building the proposed infrastructure improvement would provide critical
40 space for expansion and construction of new facilities, thereby allowing units at other armories
41 and at the site to use space more efficiently. It also allows UTARNG to construct new facilities

1 in the future to replace dilapidated and aged facilities that no longer meet the mission nor are
 2 structurally able to support units of UTARNG.

3 The purpose of the Proposed Action is to provide infrastructure and space for UTARNG units
 4 to achieve proficiency in training tasks and to support ongoing missions. The specific purpose
 5 and need for the Proposed Action is provided in Table 1-1. The 19th SFG is currently located in
 6 facilities that are inadequate, aged, and crowded, providing no room for expansion. The
 7 facilities currently being used by the units do not meet the training, administrative, and storage
 8 space requirements. There is limited military vehicle and off-street parking. Other deficiencies
 9 include heating, plumbing, and electrical systems. UTARNG inspected the facilities and found
 10 them lacking in essential fire detection and suppression systems and required structural
 11 footings/foundation/flexible diaphragm for the seismic conditions present along the Wasatch
 12 Front (fault line). Lastly, lack of adequate classrooms, supply rooms, arms vaults, showers,
 13 kitchen facilities, and parking areas adversely affect the training and quality of life of current
 14 units and make meeting their mission-essential training requirements difficult, if not
 15 impossible.

16 By implementing the Proposed Action, UTARNG would provide the training and support
 17 facilities necessary to ensure long-term viability and sustainability, by providing assets
 18 necessary to meet its readiness, recruiting, retention, and training objectives. Lastly, by building
 19 the critical infrastructure for the Lower Garrison area, UTARNG would meet current building
 20 standards set forth in NGR 415-10, *Army National Guard Facilities Construction*, and NGB PAM
 21 415-12, *Army National Guard Facilities Allowances* dated 23 July 2011. These standards documents
 22 establish the facility allowances and requirements for a particular Readiness Center, and in
 23 doing so also serve as screening criteria to eliminate unsuitable site options.

24 This document is intended to be an assessment of components of the development plan that are
 25 or will be funded in the near term, namely the 19th SFG Readiness Center (October 2017) and
 26 associated utility and road infrastructure (October 2015). These near-term projects are evaluated
 27 in the context of a greater plan of development for the Lower Garrison, which includes other
 28 proposed projects that are reasonably foreseeable but unfunded and uncertain. UTARNG will
 29 conduct additional NEPA analysis in coordination with ARNG-ILE for each of these other
 30 reasonably foreseeable projects at the appropriate time, as needed.

TABLE 1-1
 Purpose of and Need for the Proposed Project

No.	Purpose of Proposed Components	Need for Proposed Components
1	Construction and use of road system for travel of privately owned vehicles and unit equipment	Support the SFG Readiness Center facility function and also future development
2	Construction and use of utility infrastructure for the SFG Readiness Center and future facilities	Support the SFG Readiness Center facility function and also future development
3	Readiness Center Buildings to provide adequate facilities for administrative offices	Current administrative offices are inadequate at the Draper JFHQ to support mission requirements

31 1.3 Scope of Analysis

32 The purpose of this EA is to describe current environmental resources at and adjacent to the
 33 Proposed Action site and to inform decision makers and the public of the potential

1 environmental consequences of construction and operation, as well as to present the rationale
2 used for identifying and evaluating impacts at Camp Williams. Design measures to reduce the
3 potential for impacts are identified and described where warranted.

4 This EA identifies, documents, and evaluates potential environmental, cultural, and
5 socioeconomic effects of the analyzed alternatives and seeks to ensure that appropriate
6 consideration is given to environmental resources. It includes a thorough evaluation of direct,
7 indirect, and cumulative impacts, both temporary and permanent, that could occur as a result of
8 implementing the alternatives at Camp Williams.

9 This document is intended to be an assessment of components of the Lower Garrison
10 Development that are or will be funded in the near term, namely the SFG Readiness Center and
11 associated road and utility infrastructure. The UTARNG will conduct additional NEPA analysis
12 in coordination with ARNG-ILE for each of the other projects included in the Lower Garrison
13 Development at the appropriate time, as needed. The UTARNG, in coordination with ARNG-
14 ILE (Environmental Division), will determine the level of NEPA required for each subsequent
15 development during the planning phase.

16 1.4 Decision-making

17 Pursuant to DoD Directive 5105.77, NGB, dated 21 May 2008, the NGB serves as the principal
18 advisor on matters involving the ARNG, and is responsible for implementing DoD guidance on
19 the structure and strength authorizations of the ARNG. The NGB is responsible for ensuring
20 that ARNG activities are performed in accordance with applicable policies and regulations. As
21 such, the NGB is the lead federal agency responsible for preparation of NEPA-compliant
22 documentation on projects for which the UTARNG is the proponent. In that capacity, the NGB
23 is ultimately responsible for environmental analyses and documentation; however, the local
24 responsibility for NEPA document preparation falls upon the UTARNG (DoD Directive
25 5105.77).

26 This EA analyzes the potential for significant environmental effects associated with the
27 Proposed Action and alternatives, including the No Action Alternative. If the analyses
28 presented in this EA indicate that the Proposed Action would not result in significant
29 environmental or socioeconomic effects, then a Finding of No Significant Impact (FNSI) will be
30 prepared. A FNSI briefly presents the reasons why a proposed action would not have a
31 significant effect on the human environment and why an Environmental Impact Statement (EIS)
32 would not be necessary. If the analyses presented in this EA indicate that significant
33 environmental effects would result from the Proposed Action that cannot be mitigated to
34 insignificance, a Notice of Intent to prepare an EIS would be required or no action would be
35 taken.

36 1.5 Public and Agency Involvement

37 1.5.1 Public Participation

38 In accordance with NEPA, this EA was released to the public in final form for review. The scope
39 of the Proposed Action meets the requirements presented in the 2011 ARNG NEPA Handbook
40 for following a standard timeline for the EA process. Consistent with the standard timeline,
41 UTARNG offered the final EA and draft Finding of No Significant Impact for public review for

1 one 30-day period at the Salt Lake City Main Library, beginning March 1, 2016 and ending april
2 4, 2016. The review period for the document was advertised in the *Salt Lake Tribune* and *Deseret*
3 *News* newspapers on February 28, 2016. A copy of the Notice of Availability for this EA is
4 included in Appendix B.

5 1.5.2 Interagency Consultation and Coordination

6 UTARNG consulted with appropriate federal, state, and, local agencies to seek input on the
7 Proposed Action. The information collected from the coordination process was used to evaluate
8 potential impacts and will be incorporated into this EA. Copies of correspondence to and from
9 UTARNG are included in Appendix C.

10 As part of this process, UTARNG requested input from federally recognized Native American
11 tribes as required under the DoD American Indian and Alaska Native Policy Document (DoDI
12 4710.02, 27 October 1999). This policy states that if it appears that there might be an effect, the
13 appropriate federally recognized tribes, Alaskan Native villages and corporations and Native
14 Hawaiian organizations, would be contacted. Correspondence with tribal governments,
15 including certified letters sent from UTARNG to Native American tribes of Utah, is included in
16 Appendix D.

17 1.5.3 Related NEPA, Environmental, and Other Documents and Processes

18 The property for the proposed Lower Garrison Development includes former privately held
19 lands, acquired either in 1942 by a federal declaration of taking or in 1988 by warranty deed,
20 and lands permitted to the State of Utah starting in 1942. These are state-owned lands under
21 control of the State Armory Board of the State of Utah since their acquisition dates.

22 A recent NEPA evaluation was completed that included a portion of the Lower Garrison
23 Development site. An EA and a Supplemental EA for the Construction and Operation of the
24 Utah Data Center were completed for the National Security Agency (NSA) in September 2009
25 and October 2010, respectively (NSA, 2009 and NSA, 2010). One of the alternative site locations
26 considered in those documents covers a portion of the Lower Garrison Development site.
27 Although this alternative was analyzed, it was eliminated from further consideration as it did
28 not meet the project criterion (NSA, 2010).

29 1.6 Regulatory Framework

30 A decision on whether or not to proceed with the Proposed Action will be based on numerous
31 factors, such as mission requirements, schedule, availability of funding, and environmental
32 considerations. In addressing environmental considerations, UTARNG is guided by several
33 relevant statutes, their implementing regulations, and executive orders that establish standards
34 and provide guidance on environmental and natural resource management and planning
35 procedures. These include, but are not necessarily limited to, the following:

36 Federal Statutes:

- 37 • Archeological and Historical Data Preservation Act of 1974 (16 USC 469)
- 38 • Archeological Resources Protection Act of 1979 (16 USC 470)
- 39 • American Indian Religious Freedom Act of 1978 (42 USC 1996, as amended)

- 1 • Antiquities Act of 1906 (16 USC 431-433)
- 2 • Bald and Golden Eagle Protection Act of 1940 (16 USC 668-668c)
- 3 • Clean Air Act (CAA) (42 USC 7401 et seq., as amended)
- 4 • CAA General Conformity Rule (40 CFR Parts 6, 51, and 93)
- 5 • Clean Water Act of 1977 and the Water Quality Act of 1987 (33 USC 1251 et seq., as
- 6 amended)
- 7 • Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- 8 (as amended by the Superfund Amendments and Reauthorization Act of 1986 [42 USC
- 9 9601 et seq.]
- 10 • Curation of Federally Owned and Administered Archaeological Collections (36 CFR 79)
- 11 • Endangered Species Act (ESA) of 1973, as amended by The National Defense
- 12 Authorization Act of 2004 (Public Law 93-205; 16 USC 1531 *et seq.*)
- 13 • Energy Policy Act of 2005 (42 USC 15801)
- 14 • Farmland Protection Act of 1981 (7 USC 4201 et seq., as amended)
- 15 • Fish and Wildlife Coordination Act (16 USC 661, et seq.)
- 16 • Mandatory Reporting of Greenhouse Gases (40 CFR Part 98)
- 17 • Magnuson-Stevens Fishery Conservation and Management Act of 1976 (16 USC 1801-
- 18 1884)
- 19 • Migratory Bird Treaty Act (16 USC 701, et seq.)
- 20 • National Energy Conservation Policy Act (42 USC 8251)
- 21 • NEPA (42 USC 4321-4370)
- 22 • National Historic Preservation Act of 1966 (16 USC 470 et seq., as amended)
- 23 • Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.,
- 24 as amended)
- 25 • Noise Control Act of 1972 (42 USC 4901-4918)
- 26 • Memorandum for Heads of Executive Departments and Agencies on
- 27 Government-to-Government Relations with Native American Tribal Governments
- 28 • Resource Conservation and Recovery Act of 1976 (42 USC 6901)
- 29 • Soil Conservation and Domestic Allotment Act of 1936 (Public Law 74-46; 16 USC 590)
- 30 • Toxic Substances Control Act (15 USC 2601 et seq., as amended)

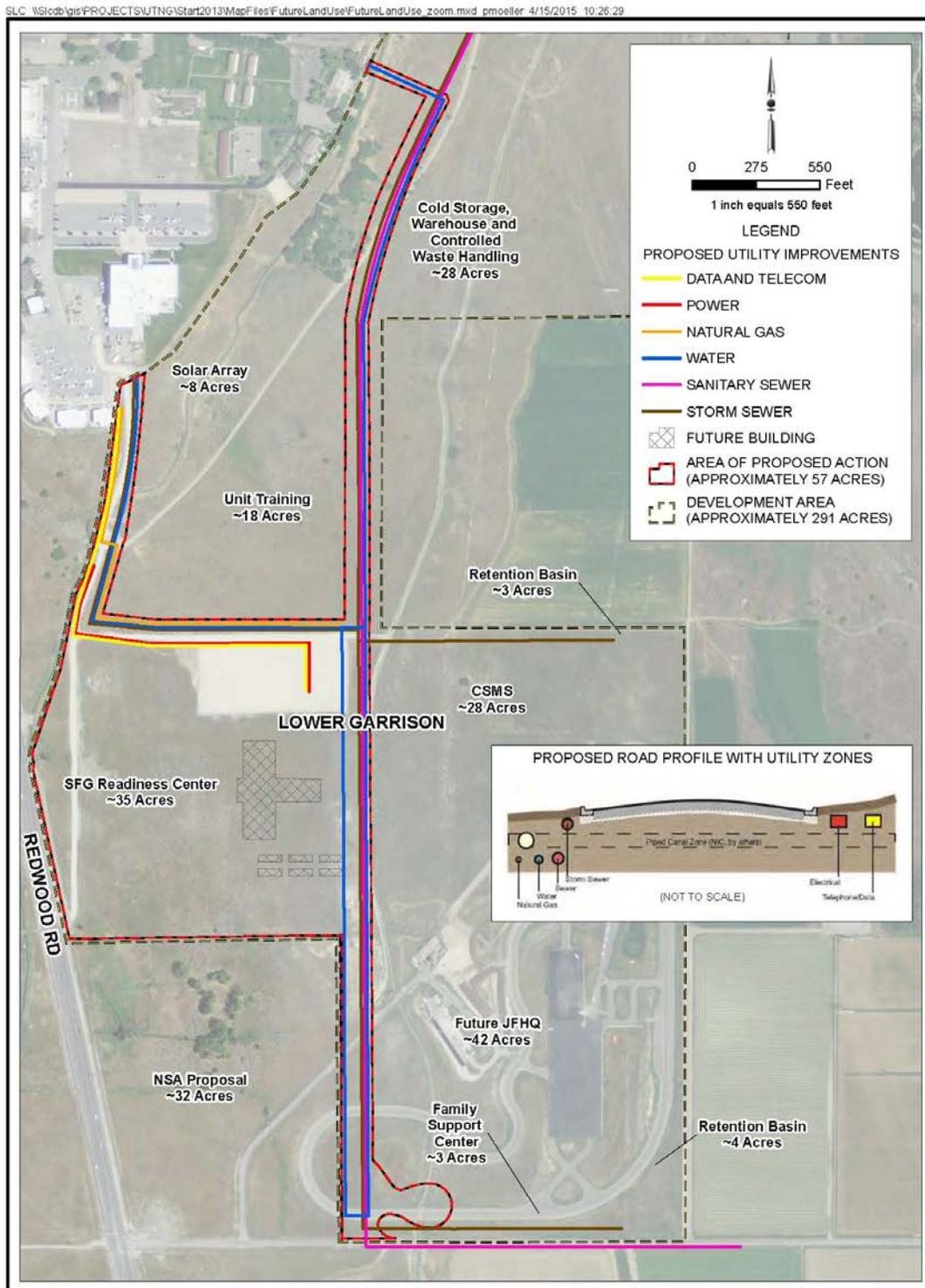
31 Regulations:

- 32 • Army Regulation (AR) 200-1, Environmental Protection and Enhancement

- 1 • AR 385-10, The Army Safety Program
- 2 • AR 525-13, Antiterrorism
- 3 • CEQ Regulations for Implementing the Procedural Provisions of NEPA (Title 40 CFR,
- 4 Parts 1500-1508 [40 CFR 1500-1508])
- 5 • DoD Instruction 4710.02
- 6 • Environmental Analysis of Army Actions (32 CFR 651)
- 7 • National Register of Historic Places (NRHP; 36 CFR 60.4)
- 8 • Protection of Historic Properties (36 CFR Part 800)
- 9 • AR 190-13, The Army Physical Security Program
- 10 **Executive Orders:**
- 11 • Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality
- 12 (amended by EO 11991)
- 13 • EO 11988, Floodplain Management
- 14 • EO 11990, Protection of Wetlands
- 15 • EO 12088, Federal Compliance with Pollution Control Standards
- 16 • EO 12372, Intergovernmental Review of Federal Programs
- 17 • EO 12580, Superfund Implementation
- 18 • EO 12898, Federal Actions to Address Environmental Justice in Minority Populations
- 19 and Low-Income Populations
- 20 • EO 12902, Energy Efficiency and Water Conservation at Federal Facilities
- 21 • EO 13007, Protection of Indian Sacred Sites
- 22 • EO 13045, Protection of Children from Environmental Health Risks and Safety Risk
- 23 • EO 13101, Greening the Government Through Waste Prevention, Recycling, and Federal
- 24 Acquisition
- 25 • EO 13123, Greening the Government Through Efficient Energy Management
- 26 • EO 13149, Greening the Government Through Federal Fleet and Transportation
- 27 Efficiency
- 28 • EO 13175, Consultation and Coordination with Indian Tribal Governments
- 29 • EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds
- 30 • EO 13327, Federal Real Property Asset Management (amended by EO 13423)

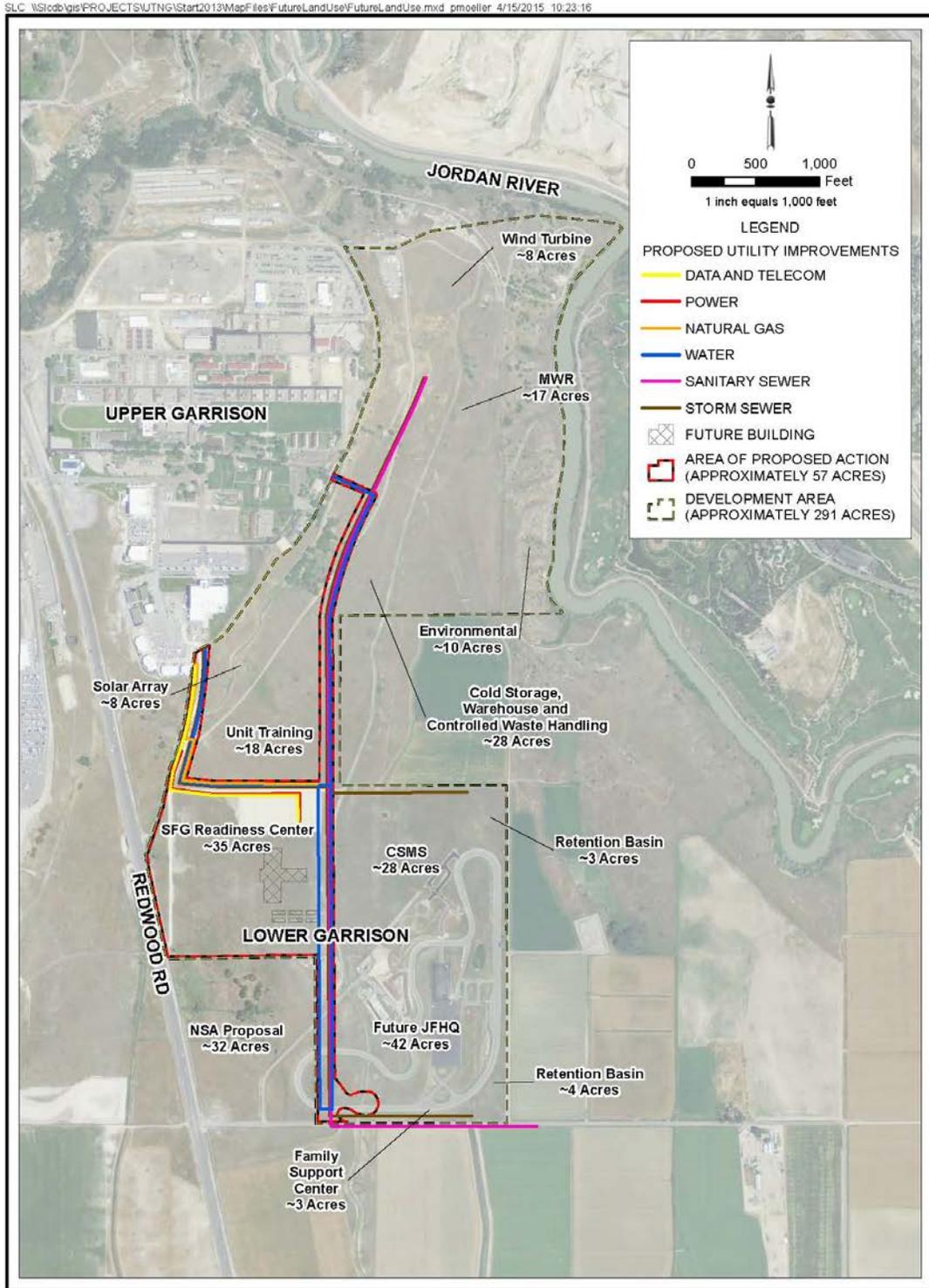
- 1 • EO 13423, Strengthening Federal Environmental, Energy, and Transportation
- 2 Management
- 3 • EO 13693, Planning for Federal Sustainability in the Next Decade

1 FIGURE 1-1
 2 Proposed Action Location



3

1 FIGURE 1-2
 2 Lower Garrison Development Location



3

1

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2.0 Proposed Action and Alternatives

2.1 Introduction

The scope of this EA includes descriptions of two possible alternatives, summarized as follows:

- **Alternative 1: Preferred Action Alternative** – Implement the Proposed Action site as identified in Table 2-1.
- **Alternative 2: No Action Alternative** – Continue with operations as currently conducted and do not implement the Proposed Action. This alternative is required by NEPA to provide a benchmark against which the potential impacts of the Proposed Action can be compared.

Detailed descriptions of the Proposed Action Alternative, the No Action Alternative, as well as alternatives eliminated from detailed study are provided in this section.

2.2 Proposed Action

The Proposed Action is to initiate the UTARNG Lower Garrison Development and includes construction of a SFG Readiness Center and associated road and utility infrastructure. The projects are summarized in Table 2-1, locations are shown on Figure 1-1, and described later in this section. Projects noted with “alternative approval process” indicate projects that the State of Utah has or will fund. This Proposed Action is proposed to meet the specific purpose and needs set forth in Section 1.2. As listed in Table 2-1, the total amount of surface disturbance under the Proposed Action would be approximately 769,000 square feet (ft²) of the entire 2,497,165 -ft² (57-acre) project area. Additional detail regarding funding is discussed in Section 4.8.

TABLE 2-1
Summary Descriptions of Proposed Action

Component	Component Description	Anticipated Impact (approximate)	Known Military Construction (MILCON) Number	Planned Fiscal Year for Construction
Surface Roads	Construction and use of road system for travel of privately owned vehicles and unit equipment	± 250,000 ft ²	Alternative approval process	2016
Utility Infrastructure	Construction and use of utility infrastructure to support the SFG Readiness Center and future facilities	± 54,000 ft ²	Alternative approval process	2016
19 th SFG Readiness Center	Construction and use of SFG Readiness Center	± 465,000 ft ²	Project Number 490601	2017
Total ± 769,000 ft ²				

The Proposed Action consists of the following facilities/attributes:

- **Road Infrastructure:** This would include a series of roads that would allow for free traffic flow from the Lower Garrison area of Camp Williams to the upper or northern section of Camp Williams. It would also allow for free travel between the various sites and provide a secondary ingress/egress to the entire campus via Mink Road (10400 North). The roads will be paved with ditch drainage and no wider than two lanes with a 25 mile per hour speed limit.
- **Utilities Corridor(s):** This would provide the required utilities to aid in each site's proper and full function. This would include a series of culinary water lines, sanitary sewer lines, electrical service, natural gas lines, communication and data lines, and storm drainage for the entire site.
- **SFG Readiness Center:** This is a ± 160,000-ft² facility that would house the units of the SFG assigned to the Utah National Guard. Construction will include all utility services, information systems, fire detection and alarm systems, roads, sidewalks, curbs, gutters, storm drainage, and parking areas for 478 privately owned vehicles, and site improvements. The site would consist of an approximate 107,366-ft² SFG Readiness Center, a 45,000-ft² unheated enclosed vehicle storage building, a 7,521-ft² unheated storage building, and 300-ft² controlled waste facility that supports training, administrative, and logistical requirements. Additional support facilities include approximately 8,189 square yards of rigid concrete pavement, 14,000 square yards of flexible pavement, and 1,790 square yards of concrete sidewalk. It would allow for training, storage of equipment and supplies, and provide a required bull pen area for a variety of rolling stock assigned to the unit (Harris and Associates, 2007). A conceptual drawing for the Proposed Action, scope of construction, site photographs, and main body of the LRMP are included in Appendix A.

Potential long-term projects associated with the Lower Garrison Development are shown on Figure 1-2 and outlined in Section 4.14. Future planned facilities are facilities that have not been designed as of the published date. They are planned and forecasted as part of the Lower Garrison Development.

2.3 Alternatives Considered

The Construction Facility Management Office commissioned a Camp Williams LRMP, prepared by EFT Architects, and published in December 2012 (EFT Architects, 2012a). The LRMP development plan identified a proposed layout for facilities and infrastructure to be developed in the Lower Garrison area in phases, starting with short-term projects and followed by Phase A (2012 to 2017), Phase B (2018 to 2023), Phase C (2024 to 2029), and Phase D (2030 to 2035) projects.

The Proposed Action consists of the near-term projects included in the LRMP for the Lower Garrison area, namely the SFG Readiness Center (FY 2017) and associated utility and road infrastructure (FY 2016).

The No Action Alternative is that no construction would be performed and units would be constrained under current conditions with limited training and no expansion at Camp Williams for growing missions.

2.3.1 Criteria for Evaluating Alternatives

The UTARNG compared the preliminary alternatives against a list of screening criteria during the development of project locations to identify the preferred alternative and eliminate those that did not reasonably meet the requirements for the Proposed Action. The UTARNG compared the alternatives against the following listed screening criteria:

- Availability of grounds suitable to construct
- Availability of infrastructure
- Proximity to local training areas
- Proximity to soldiers and equipment
- Storage capacity for equipment
- Budget constraints on new property purchases
- Future stationing plans
- Potential for future growth

In addition, the LRMP included the following planning considerations for project locations (EFT Architects, 2012a):

- Promote compatible land use development near training areas and facilities in a manner that would limit restrictions imposed on UTARNG operations while protecting and enhancing surrounding communities
- Ensure wise protection, use, and management of resources within the natural and human-made environments
- Promote an efficient traffic flow pattern between related land uses
- Enhance visual and aesthetic resources
- Collate or consolidate activities that are functionally related in an effort to improve operational efficiency
- Provide the basis for developing a capital investment strategy, including guidelines for the siting of facilities
- Provide the highest-quality working community relationship and environment for the UTARNG and its soldiers

2.3.2 Evaluated Alternatives

2.3.2.1 Preferred Action Alternative

The Preferred Action Alternative is the Proposed Action as described in Section 2.2. It is to construct the SFG Readiness Center and associated utility and road infrastructure.

- Grounds suitable to construct the Proposed Action is available at Camp Williams and satisfies the current requirements; existing infrastructure is available to tie into.
- The preferred alternative allows for sufficient space and infrastructure close to local training units and within a reasonable distance of travel for training.

- Also, storage capacity for necessary equipment is available with the preferred alternative.
- Budget constraints met as new property purchases would not be required.
- The current leadership and UTARNG Operations and Training Directorate future stationing plan do not show any available sites to satisfy the project requirements with the exception of the proposed site.
- The expansion of facilities on the current site meets basic requirements, provides a positive impact to the local community, and supports potential for future growth.

2.3.2.2 No Action Alternative

The No Action Alternative reflects the status quo at Camp Williams. Under the No Action Alternative, UTARNG would not construct any new facilities or infrastructure associated with the Lower Garrison Development. Continued use of inadequate training areas and facilities would not support the UTARNG mission and would not meet the purpose of or need for the Proposed Action. With the exception of meeting budget constraints on new property purchases, none of the evaluation criteria would be met. This alternative is carried forward to provide a comparative baseline against which to analyze the effects of the Proposed Action, as required under the CEQ Regulations (40 CFR Part 1502.14).

2.3.3 Alternatives Considered, but Not Carried Forward for Further Analysis

2.3.3.1 Use of Another Location at Camp Williams

As part of the planning process, the proposed projects are sited on Camp Williams to minimize and avoid potential impacts to known significant environmental resources and to establish training resources. An analysis of existing environmental constraints was used to determine the best possible location for the project or activity, considering the known natural, cultural, and socioeconomic resources present within and surrounding the proposed site.

UTARNG made efforts to site the proposed project so that maximum use was made of existing infrastructure, landforms, and previously disturbed land areas, thereby reducing construction costs and further minimizing the potential for environmental impact. Use of another location would result in greater impacts. Therefore, this alternative was eliminated from further consideration for the following reasons:

- Although existing infrastructure is present and Camp Williams is proximate to local training units, there is no other current land available at Camp Williams to centrally satisfy the current requirements.
- No other location at Camp Williams would provide adequate storage capacity for equipment or support potential for future growth.
- The current leadership and UTARNG Operations and Training Directorate future stationing plan do not show any available sites to satisfy these requirements with the exception of the proposed site.

- Due to current and future development around the proposed site, the benefits to UTARNG would be positive if these assets are located at the proposed site versus another site.

2.3.3.2 Use of Another National Guard or DoD Facility

Use of another National Guard or DoD facility (applicable to the SFG Readiness Center project) was eliminated from consideration because there is not another nearby location that could accommodate the project components without causing logistical disruptions to training requirements. This option would not meet the purpose and need for the project. The following are additional rationale:

- There are no available grounds within the current population base of UTARNG or at other DoD facilities that have sufficient space and infrastructure, are close to the units, and within a reasonable distance of travel for training.
- Areas that could be considered were outside of the determined 50-mile travel area from a Readiness Center within the state, as outlined in UTARNG TAG policy and included in the Readiness Center Transformation Master Plan (Tetra Tech and Mead & Hunt, 2014). Also, storage of equipment and recruitment demographics did not support any of the areas that met basic criteria.
- Budgets for soldier and equipment travel do not allow for major movements outside of a 50-mile corridor of any Readiness Center.
- The current leadership and UTARNG Operations and Training Directorate future stationing plan do not show any available sites to satisfy these requirements with the exception of the proposed site.
- The expansion of facilities on the current site meets basic requirements and provides a positive impact to the local community. This is not the case with alternatives at another facility.

2.3.3.3 Purchase Additional Land

No funds are available to UTARNG to purchase any additional property or land that can satisfy project requirements. Therefore, this option was eliminated from consideration regardless of the remaining criteria.

2.3.4 Alternatives Evaluation Summary

The screening criteria were applied to each of the alternatives considered. In addition to the discussion provided above, a relative ranking score between 1 and 5 was assigned to each alternative, with 5 indicating the highest ranking. A summary of the relative ranking is presented in Table 2-2.

TABLE 2-2
Screening Criteria Evaluation

Criteria	Preferred Alternative	No Action Alternative	Another Location at Camp Williams	Another National Guard or DoD Facility	Purchase Additional Land
Availability of grounds suitable to construct	5	1	1	2	4
Availability of infrastructure	3	1	3	3	2
Proximity to local training areas	4	1	4	2	2
Proximity to soldiers and equipment	4	1	4	2	2
Storage capacity for equipment	5	1	2	3	5
Budget constraints on new property purchases	5	5	5	5	1
Future stationing plans	5	1	2	2	4
Potential for future growth	5	1	2	2	4
Total Score	36	12	23	21	24

2.4 Alternatives' Impacts Comparison Matrix

The Proposed Action and the No Action Alternative are compared in Table 2-3.

TABLE 2-3
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Geographic Setting and Location	Long-term, less than significant adverse impacts through removal of some vegetative cover to support new buildings. Implementing appropriate setback criteria and screening in site design would reduce potential long-term, less than significant adverse impacts on the potential encroachment on adjacent city.	Facilities would not be constructed at Camp Williams resulting in no impacts.

TABLE 2-3
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Land Use	Conversion of 57 acres of currently undeveloped land. Short- to long-term, less-than-significant adverse impacts on land use associated with construction and operational activities.	No impacts on land use. UTARNG would continue to use inadequate facilities that do not meet the training, administrative, and storage space requirements.
Air Quality	Short-term, less-than-significant adverse impacts associated with fugitive dust during construction activities. Impacts would be reduced through BMPs, including water application. Long-term, less-than-significant adverse impacts associated with the creation of permanent sources of air emissions. UTARNG prepared a General Conformity Record of Nonapplicability for the Proposed Action.	No change in current conditions or operations resulting in no impacts.
Noise	Construction-related noise could produce short-term, less-than-significant adverse impacts. BMPs would reduce impacts by limiting noise to daylight hours during weekdays.	No new construction or development would result in no new noise impacts. Noise would continue from current operational activities.
Geology, Topography, and Soils	Disturbance of up to 57 acres of existing soils for clearing, paving, and/or grading. Short-term, less-than-significant adverse impacts associated with potential erosion and sedimentation. Similar impact associated with trenching activities needed for the placement of utilities. Impacts would be reduced through BMPs.	No impacts as a result of no changes to current conditions.
Water Resources	Construction activities and new operations could contribute to short- and long-term, less-than-significant adverse impacts to the nearby Provo Reservoir Canal and Utah Lake Distributing Canal. The use of BMPs would reduce impacts during and following construction.	No impacts to nearby surface waters.
Biological Resources	Approximately 18 acres of vegetation would receive long-term, less-than-significant adverse impacts with the implementation of the Proposed Action. Short- and long-term, less-than-significant adverse impacts on wildlife species would be expected during construction activities with certain species returning after development while others permanently relocated. Construction activities could also reduce numbers of less-mobile species through collision or demolition of habitat. Habitat fragmentation from implementation of the Proposed Action could create long-term, less-than-significant adverse impacts on wildlife.	No impacts would be expected and current habitat would remain.
Cultural Resources	No impacts. The State Historic Preservation Office (SHPO) has concurred with this determination (see Appendix C).	No impacts as no ground-disturbing activities would occur.

TABLE 2-3
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Socioeconomics (including Environmental Justice and Protection of Children)	Short- and long-term, <u>positive</u> impacts due to increases in construction and manufacturing employment. New jobs would be associated with construction of the proposed projects. No adverse impacts that could affect low-income populations or children.	Potential short- and long-term, less-than-significant adverse impacts by failing to provide secure job markets in the region with respect to UTARNG jobs.
Utilities	Utility resources would need to be expanded to support new development. Negligible to long-term, less than significant adverse impacts on utilities would be anticipated.	Utility usage would continue as under current conditions.
Transportation and Traffic	Short-term, less-than-significant adverse impacts due to road closures and increased construction traffic.	No new construction or development would result in no new impacts to transportation and traffic.
Hazardous and Toxic Materials/Wastes	Short-term, less-than-significant adverse impacts could result from the use of hazardous materials during construction activities. Use of personal protective equipment, monitoring and adherence to Occupational Safety and Health Administration (OSHA) and UTARNG safety requirements would reduce potential risks.	No new impacts. Existing hazardous materials/waste management plans would continue to be implemented at UTARNG.

3.0 Affected Environment

3.1 Location Description

Camp Williams is a year-round training site operated by UTARNG. It is the largest Army training center in Utah. It encompasses nearly 30,000 acres, with approximately 18,700 acres of training areas. The training area serves not only as a major training site for Utah National Guard units, but also for units throughout the United States and some foreign nations. In addition to weapons ranges, battle courses, and many outdoor training facilities, Camp Williams also has maintenance facilities, troop support capabilities, and extensive classroom facilities. Camp Williams is home to a Marine Corps Reserve unit and UTARNG's 640th Regimental Regional Training Institute, which trains National Guard soldiers from all western states, including Hawaii and Guam. The Headquarters of the Utah National Guard is at the Draper Headquarters Complex located next to Interstate-15 in the southern end of the Salt Lake Valley. This extensive facility is also home to several major commands and separate units.

The Camp Williams facility is located at the south end of the Salt Lake Valley near the cities of Herriman and Bluffdale to the north, Lehi and Saratoga Springs to the east, and Eagle Mountain to the south. As stated in the LRMP (EFT Architects, 2012a), the installation is mountainous and offers varied elevations from 4,494 feet on the Jordan River to 7,255 feet on Sheep's Ridge in the Oquirrh Mountains. Camp Williams is primarily semi-desert and sage steppe landscape. The vegetation on the installation consists primarily of juniper woodland, Gambel's oak, and big sagebrush/grass.

The Integrated Natural Resources Management Plan (INRMP) was originally prepared in 2001, last revised in 2007, and updated annually until 2009. Subsequently, updates have been provided via the Information Assurance Workforce NGB-sponsored training reports. The INRMP (UTARNG, 2007a) describes the climate of Camp Williams as a continental climate of temperate desert and semidesert with low precipitation and strong temperature differences between summer and winter. As a semiarid environmental, precipitation tends to occur outside of the summer months.

The Proposed Action site is located on the eastern side of Camp Williams, adjacent to SR 68, on a relatively flat bluff above the Jordan River. Redwood Road runs west of the project and 10400 North runs parallel on the south of the proposed project. Land uses surrounding the Proposed Action site include agricultural (predominantly pasture), residential, offices, and some governmental (DoD) activities (see Figure 1-2). A natural gas transmission line runs north-south along the front of the property along Redwood Road. An irrigation canal east of the Proposed Action site runs south-north. Another canal runs west-east and then south-north along the edge of a bluff. A 120-acre driving track constructed by the Department of Public Safety for the State of Utah is located to the southeast of the Proposed Action site. The Proposed Action site is currently undeveloped; however, it has been previously disturbed by agricultural activities, military training, and grading by the State of Utah.

3.2 Land Use

3.2.1 Definition of the Resource

Land use refers the types of human activity occurring on a parcel, including economic production, residential, religious, recreational, and other purposes or for natural resource protection. In many cases, land use descriptions are codified in local zoning laws. Two main objectives of land use planning are to ensure orderly growth and compatibility with adjoining land uses. Compatibility among land uses fosters the societal interest of obtaining the highest and best uses of real property. Tools supporting land use planning include written master plans/management plans and zoning regulations. In appropriate cases, the locations and extent of Proposed Actions need to be evaluated for their potential effects on project site and adjacent land uses.

The foremost factor affecting a Proposed Action in terms of land use is its compliance with applicable land use or zoning regulations. Other relevant factors include matters such as existing land use at the project site, the types of land uses on adjacent properties and their proximity to a Proposed Action, and the duration of a proposed activity and its “permanence.”

Potential impacts on land use should also consider the indirect impacts from a Proposed Action, such as how other resource areas could affect land uses. For example, changes in the visual environment could result in an adverse impact on land use.

3.2.2 Description of the Affected Environment

The region of influence (ROI) considered for land use consists of the areas inside of and immediately adjacent to the Proposed Action site.

Land use on Camp Williams is focused on military land uses that are primarily of a training nature, with a variety of different training activities occurring. Military-based land uses include specialized winter, desert, mountain, and amphibious training, and numerous firing ranges. The military-based training activities include weapons live-fire familiarization and qualification, basic airborne and jump master refresher courses, military academy courses, battalion-sized and brigade-sized training and mobilization processing exercises, artillery battalion live-fire exercises, individual training, and primary leadership development courses. Nonmilitary uses are mostly in the cantonment area of the installation and include civilian police firing ranges, symposiums, and confidence courses. Support facilities in the cantonment area include administration buildings, mess halls, barracks, classrooms, warehouses, workshops, and maintenance facilities.

The Proposed Action site is within the boundaries of Camp Williams and in an area referred to as the Lower Garrison. The Lower Garrison is roughly defined by the Camp Williams cantonment area to the west, the Jordan River to the north and east, and the installation boundary to the south. The site location is near the eastern boundary of the installation within relatively undeveloped areas adjacent to the cantonment area.

Off-installation land use in the vicinity of the Proposed Action site is primarily limited to the Thanksgiving Point development across the Jordan River to the east of Camp Williams. The development includes a golf course, a park (Thanksgiving Point Gardens), and a residential development farther east.

1 3.3 Air Quality

2 3.3.1 Definition of the Resource

3 3.3.1.1 Clean Air Act Criteria Pollutants

4 Under the authority of the CAA, the United States Environmental Protection Agency (EPA) has
 5 established nationwide air quality standards to protect public health and welfare, with an
 6 adequate margin of safety. Last amended in 1990, the CAA requires the continued re-evaluation
 7 of National Ambient Air Quality Standards (NAAQS). EPA defines these standards for six air
 8 pollutants identified as causing harm to health, environment, or property. These pollutants
 9 include carbon monoxide (CO), lead, nitrogen dioxide (NO₂), particulate matter less than
 10 10 micrometers in diameter (PM₁₀), and particulate matter less than 2.5 micrometers in diameter
 11 (PM_{2.5}), ozone (O₃), and sulfur dioxides (SO₂). Two types of standards are identified for each
 12 pollutant based on level of protection. Per 40 CFR Part 50, primary standards protect public
 13 health including sensitive populations while secondary standards protect public welfare. The
 14 EPA website provides the most up-to-date NAAQS for the criteria pollutants. Table 3-1
 15 provides the NAAQS current at the time this document was prepared.

TABLE 3-1
NAAQS for Criteria Pollutants

Pollutant	Standard Type	Averaging Period	Primary Standard
CO	Primary	1-hour	35 ppm
		8-hour	9 ppm
NO ₂	Primary	1-hour	100 ppb
	Primary and secondary	Annual	53 ppb
O ₃	Primary and secondary	8-hour	0.075 ppm
SO ₂	Primary	1-hour	75 ppb
	Secondary	3-hour	0.5 ppm
PM _{2.5}	Primary	Annual	12 µg/m ³
		24-hour	35 µg/m ³
	Secondary	Annual	15 µg/m ³
PM ₁₀	Primary and secondary	24-hour	150 µg/m ³

Notes:

ppm = part(s) per million

ppb = part(s) per billion

µg/m³ = microgram(s) per cubic meter

Source: EPA website: <http://epa.gov/air/criteria.html> as of December 2013.

1 The criteria provided under the CAA classify the country into attainment, nonattainment, and
2 maintenance areas, usually designated by county or metropolitan statistical area. Any areas not
3 meeting NAAQS are designated as nonattainment for the specific pollutant or pollutants. In
4 addition, designated nonattainment areas may be expanded according to Section 107(d) of the
5 CAA, which defines a nonattainment area as “any area that does not meet (or that contributes to
6 ambient air quality in a nearby area that does not meet) the national primary or secondary
7 ambient air quality standards for the pollutant.” Nonattainment status can be further classified
8 as marginal, moderate, serious, severe, or extreme, with extreme having the highest level of
9 NAAQS exceedances. Each state is required to demonstrate how nonattainment areas will be
10 brought into compliance with NAAQS and other components of the CAA through a State
11 Implementation Plan. Areas that currently meet the NAAQS, but historically did not, are
12 considered attainment areas under maintenance status and are required to develop a
13 maintenance plan under section 175A of the CAA, as amended.

14 The CAA General Conformity Rule (40 CFR Parts 6, 51, and 93) requires federal agencies to
15 make written conformity determinations for federal actions in or affecting nonattainment or
16 maintenance areas. Proposals for federal actions must include evaluations of potential changes
17 in direct and indirect air emissions caused by the actions and must determine whether the
18 actions conform to applicable state and federal implementation plans. The maximum increase in
19 air emissions that is exempt from a detailed air quality analysis is called the *de minimis* level.
20 As defined by the General Conformity Rule, if the emissions of a criteria pollutant (or its
21 precursors) do not exceed the *de minimis* level, the federal action has minimal air quality impact,
22 and therefore, the action is determined to conform for the pollutant under study and no further
23 analysis is necessary. Conversely, if the total direct and indirect emissions of a pollutant are
24 above the *de minimis* level, a formal general conformity determination is required for that
25 pollutant. The *de minimis* levels for each pollutant are defined in the General Conformity
26 Rule and vary depending on the pollutant and the severity of the nonattainment/maintenance
27 status.

28 3.3.1.2 Greenhouse Gases

29 Climate change refers to any significant change in measures of climate such as temperature,
30 precipitation, or wind that last for an extended period (decades or longer). Climate change may
31 result from any of the following conditions (EPA, 2010):

- 32 • Natural factors, such as changes in the sun’s intensity or slow changes in the Earth’s
33 orbit around the sun
- 34 • Natural processes within the climate system, including changes in ocean circulation
- 35 • Human activities that change the atmosphere’s composition (such as through burning
36 fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, and
37 desertification)

38 Greenhouse gases (GHGs) are compounds that may contribute to accelerated climate change by
39 altering the thermodynamic properties of the earth’s atmosphere. GHGs include the following
40 compounds (EPA, 2010):

- 41 • Carbon dioxide (CO₂)
- 42 • Methane (CH₄)

- 1 • Nitrous oxide (N₂O)
- 2 • Hydrofluorocarbons
- 3 • Perfluorocarbons
- 4 • Sulfur hexafluoride

5 The EPA Mandatory Reporting Rule became effective on December 29, 2009. Under this rule,
 6 suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and
 7 facilities that emit 25,000 metric tons or more per year of CO₂ equivalent (CO₂e) emissions must
 8 submit annual reports to EPA. In addition, the Supreme Court decision in *Massachusetts et al. v.*
 9 *Environmental Protection Agency et al.* (Supreme Court Case 05-1120) found that EPA has the
 10 authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On
 11 April 17, 2009, EPA found that CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and
 12 sulfur hexafluoride may contribute to air pollution and may endanger public health and
 13 welfare.

14 The CEQ has issued draft guidance on considering the effects of GHG emissions in NEPA
 15 documentation (CEQ, 2010). This guidance establishes an annual total of 25,000 metric tons of
 16 CO₂ as a screening level for conducting a quantitative and qualitative assessment of GHG
 17 emissions in NEPA analysis (CEQ, 2010).

18 3.3.2 Description of the Affected Environment

19 The Proposed Action site is contiguous with the existing north Camp Williams cantonment area
 20 and southeast of Bluffdale City. The county line between Salt Lake County and Utah County
 21 falls directly in the middle of Camp Williams. As part of the LRMP, Camp Williams has begun
 22 negotiations with Salt Lake County for inclusion of the entire site. Until finalized, however, the
 23 Proposed Action site falls entirely within Utah County.

24 Utah’s air quality is regulated by the Utah Department of Air Quality (UDAQ), as well as EPA
 25 Region 8. UDAQ maintains various air monitoring stations throughout the state to measure the
 26 concentrations of pollutants and determine areas in which the NAAQS values are being
 27 exceeded. Air monitoring values for Salt Lake and Utah Counties have been measured and the
 28 3 most-recent years’ values are provided in Table 3-2.

TABLE 3-2
 Local Air Monitoring Results

Monitored Pollutant	Statistical Value	County	Year		
			2011	2012	2013
CO 1-hour (ppm)	2 nd maximum	Salt Lake	2.8	3.6	2.3
		Utah	2.9	2.7	2.3
CO 8-hour (ppm)	2 nd maximum	Salt Lake	1.6	1.8	1.5
		Utah	2	1.8	1.4
NO ₂ (ppb)	98 th percentile	Salt Lake	57	54	61
		Utah	58	66	58

TABLE 3-2
Local Air Monitoring Results

Monitored Pollutant	Statistical Value	County	Year		
			2011	2012	2013
O ₃ 1-hour (ppm)	2 nd maximum	Salt Lake	0.09	0.1	0.1
		Utah	0.08	0.1	0.1
O ₃ 8-hour (ppm)	4 th maximum	Salt Lake	0.08	0.08	0.08
		Utah	0.07	0.08	0.08
SO ₂ 1-hour (ppb)	99 th percentile	Salt Lake	18	20	26
		Utah	—	—	—
SO ₂ 24-hour (ppb)	2 nd maximum	Salt Lake	6	6	6
		Utah	—	—	—
PM _{2.5} 24-hour (µg/m ³)	98 th percentile	Salt Lake	39	33	59
		Utah	42	34	82
PM _{2.5} annual (µg/m ³)	Weighted mean	Salt Lake	8.9	8.9	12.1
		Utah	21.6	8.1	12.5
PM ₁₀ 24-hour (µg/m ³)	2 nd maximum	Salt Lake	86	81	105
		Utah	70	67	136

1 **Notes:**
 2 Values identified in red exceed NAAQS.
 3

4 **Source:** EPA website: <http://www.epa.gov/airquality/airdata> as of January 2014.

5 Salt Lake County is currently designated by EPA as a *nonattainment area* for PM₁₀, PM_{2.5}, and
 6 sulfur oxides, and as a *maintenance area* for O₃ and CO. Salt Lake County is considered an
 7 *attainment area* for lead and NO₂. Utah County is currently designated by EPA as a
 8 *nonattainment area* for PM₁₀, and PM_{2.5}, a *maintenance area* for CO, and an *attainment area* for
 9 sulfur oxides, and O₃. Salt Lake and Utah Counties are considered *attainment areas* for lead and
 10 NO₂.

11 **3.3.2.1 Existing Conditions Emissions**

12 Existing stationary emission point sources at Camp Williams include four natural gas boilers,
 13 four diesel-operated emergency generators, seven cold cleaner degreasers, one gasoline
 14 aboveground storage tank, and seven diesel storage tanks. Stationary emission area sources
 15 include general construction activities and sand and gravel operations. Additional
 16 miscellaneous emissions may result from paved and unpaved roads, small arms and large
 17 munitions firing, and woodworking and welding.

1 The combined estimated emissions from existing sources are relatively small; therefore, Camp
 2 Williams applied for and was issued a small source exemption (SSE) registration by UDAQ
 3 (DAQE-EN2720002-05) in 2005. SSEs may be granted if the following conditions are met:

- 4 • The facility emits less than 5 tons per year of PM₁₀, SO₂, CO, nitrogen oxides, and
 5 volatile organic compounds (VOCs; precursors to the formation of ground-level ozone)
- 6 • The facility emits less than 500 pounds per year of any hazardous air pollutant (HAP),
 7 and less than 2,000 pounds per year of any combination of HAPs
- 8 • The facility emits less than 500 pounds per year of any air contaminant not listed in the
 9 previous two bullets and less than 2,000 pounds per year of any combination of air
 10 contaminants not listed in the previous two bullets

11 An air emissions inventory was prepared as part of the registration for SSE registration to
 12 demonstrate that emissions fell below the conditions specified previously. These emissions are
 13 summarized in Table 3-3.

TABLE 3-3
 Existing Conditions Emissions Summary

	PM₁₀ Emissions (tons per year)	SO₂ Emissions (tons per year)	NO_x Emissions (tons per year)	CO Emissions (tons per year)	VOC Emissions (tons per year)	HAP Emissions (tons per year)
Boilers	0.24	0.02	3.20	2.69	0.18	0.37
Generators	0.10	0.11	1.56	0.34	0.15	0.0008
Degreasers					1.45	
Storage Tanks					0.83	
Construction Activities	2.64					
Sand and Gravel Operations	0.57					
Total Emissions	3.55	0.13	4.76	3.02	2.60	0.37

14 3.4 Noise

15 3.4.1 Definition of the Resource

16 The ARNG NEPA Handbook—Volume II, defines noise as unwanted sound. It can be any sound
 17 that is undesirable because it interferes with communications or other human activities, is
 18 intense enough to damage hearing, or is otherwise annoying. Noise may be intermittent or
 19 continuous, steady or impulsive, and may vary according to the type of source, the sensitivity
 20 and expectations of the receptor, the time of day, and the distance between the source and
 21 receptor.

1 3.4.2 Description of the Affected Environment

2 UTARNG at Camp Williams, as part of the Environmental Management Directorate's Noise
3 Management Plan (UTARNG, 2006), has identified sources of noise associated with typical
4 operations and activities. Noise associated with these sources can be identified within the
5 following three specific areas of the facility:

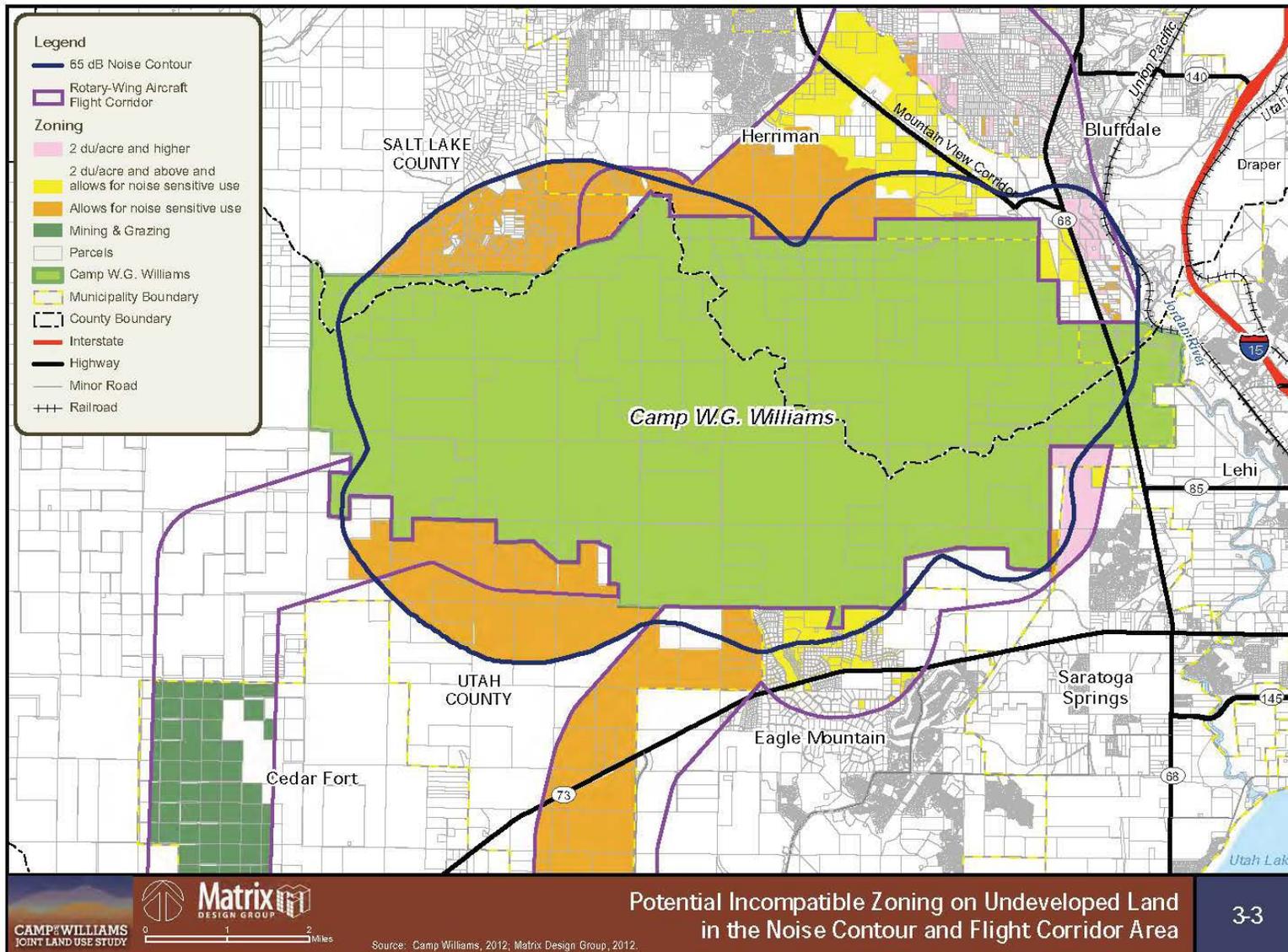
- 6 • Live-fire training with practice ranges for aerial gunnery, mortars, artillery, grenades,
7 automatic weapons, and small arms is supported across large sections of the Camp
8 Williams Military Reservation Lands. Sometimes generating "impulsive noises," some of
9 these sources may impact non-Guard neighbors and communities.
- 10 • Sources of noise generating from the Camp Williams cantonment area include
11 operations and maintenance activities, idling and transport of military vehicles, special
12 occasion rifle firing, and occasional concerts or programs at an outdoor palladium
13 venue.
- 14 • Nine helicopter pads and a small airstrip are sources of transportation noise to the
15 environment. Other ground-based military transport vehicles generate noise but
16 typically propagate within Camp Williams' property.

17 Modeling of noise propagation patterns under varying site conditions was completed and
18 included in the most recent Noise Management Plan (UTARNG, 2006). Figure 3-1 identifies the
19 Camp Williams boundary, the 65-decible noise contour, and nearby residential and sensitive
20 receptors. Residential areas are defined as having two dwelling units/per acre or more. Figure
21 3-1 identifies sensitive receptors located approximately one mile away from the Proposed
22 Action site. Based on a year 2000 noise study conducted by the United States Army Center for
23 Health Promotion and Preventative Medicine, the majority of the noise extending past Camp
24 Williams boundary can be attributed to impulsive noise associated with firing of artillery and
25 mortar weaponry.

26 UTARNG encourages the general public to provide feedback on any noise-related issue and
27 may incorporate this feedback to continually refine its noise management program. As part of
28 their procedures, UTARNG has voluntarily adopted several measures to mitigate noise and
29 other impacts to offsite receptors. These measures include the following:

- 30 • Firing of weapons shall only be conducted on Guard-designated ranges or areas.
- 31 • No mortar or artillery firing begins before 0700 or continues past 2350.
- 32 • At least 1 year in advance of proposed firing schedules, mortar and artillery firing units
33 must submit to both Guard Range Control and senior management a list of proposed
34 firing times. At least 1 month before actual firing, the Guard will notify the general
35 public of upcoming firing activities, through local news outlets.
- 36 • Flame-producing pyrotechnics, white phosphorus, illumination rounds, and tracers are
37 prohibited from June through September. Tracer ammunition may be used on the
38 M60/M2, 25M, and the Modified Record Fire ranges for qualification, at any time.

1 FIGURE 3-1
 2 Estimated Noise Levels and Sensitive Receptors



3

1 3.5 Geology, Topography, and Soils

2 3.5.1 Definition of the Resource

3 Geological resources consist of surface and subsurface materials. Within a given physiographic
4 province, these resources typically are described in terms of stratigraphy; topography; soils and
5 sediments; engineering properties of the materials; seismic hazards; slope stability; earthworks;
6 mineral resources; unique landforms; and geological conditions that might limit development,
7 influence contaminant distribution and migration, or influence ground water resources. The
8 Utah Geological Survey (UGS) and the United States Geological Survey (USGS) have extensive
9 databases profiling and documenting geologic resources.

10 The United States Department of Agriculture through the Natural Resource Conservation
11 Service (NRCS) develops and implements standards for describing, classifying, mapping,
12 writing, and publishing information about the soils of a specific area, presenting soil survey
13 data, and defining areas with soils possessing characteristics valuable for agriculture as prime
14 farmland.

15 3.5.2 Description of the Affected Environment

16 3.5.2.1 Regional Geology

17 Camp Williams is in the western Traverse Mountains along the eastern margin of the Great
18 Basin within the Uinta Extension and Wasatch Front Valleys geographical units. The Traverse
19 Mountains are composed of a small east-west-trending range that spans between the Oquirrh
20 Mountains in the west and the Wasatch Range in the east. The Traverse Range separates Utah
21 Valley to the south from Salt Lake Valley to the north, and is bisected by the Jordan River,
22 which flows north from Utah Lake and empties into the Great Salt Lake. The range consists of a
23 mix of Oquirrh group Pennsylvanian rocks and Tertiary volcanic formations (see Figure 3-2)
24 (UGS, 2005). Maximum elevations reach approximately 6,700 feet, with lower elevations at
25 about 4,500 feet along the Jordan River. Sediments along the slopes of the Proposed Action site
26 consist of colluvial and extinct lake deposits of sandy loam with poorly sorted gravels.

27 The mountain ranges started taking shape when extensional stresses slowly uplifted and broke
28 the previously deformed Precambrian (more than 570 million years old) and Paleozoic (570 to
29 240 million years old) rocks into huge fault blocks. The geology of the Traverse Mountains is
30 composed of Late Paleozoic shallow-marine rocks, outcropping as large northwest-trending
31 folds and middle Tertiary intrusions, associated volcanic rocks, and younger basin-fill strata
32 (UGS, 2005). Lake Bonneville, the largest Pleistocene lake in western North America, reached its
33 deepest level of 1,000 feet about 15,000 years ago when it flooded basins across western Utah.
34 Lake Bonneville experienced cyclic highs and lows from 30,000 to 12,000 years ago. The
35 lacustrine deposits from these cycles encircle the base of the Traverse Mountains except for the
36 topographically high northeast and western ends of the mountains.

37 Geologic formations underlying Camp Williams in the cantonment area and immediate vicinity
38 are predominantly from the Quaternary and are composed of Lake Bonneville deposits,
39 including interbedded lacustrine gravels, silts, and sands, overlying Tertiary-aged Harkers
40 conglomerate and siltstone, sandstone, marlstone, and rhyolitic tuff associated with the
41 Camp Williams and Jordan Narrows Units of the Salt Lake Formation. To the west of the

1 cantonment area, the geology is much more variable, and includes undifferentiated
 2 Tertiary-aged volcanic deposits such as latitic flows, breccias, tuffs, and rhyolites, as well as
 3 Pennsylvanian-aged Oquirrh Group formations, including the Bingham Mine Formation
 4 (orthoquartzite, calcareous quartzite, and calcareous sandstone with minor limestone) and the
 5 Butterfield Peaks Formation (calcareous quartzite and calcareous sandstone with
 6 minor limestone).

7 3.5.2.2 Topography

8 Camp Williams is located within two physiographic provinces, the Basin and Range to the west
 9 and the Middle Rocky Mountains province in the east. The Basin and Range province is
 10 characterized by steep, narrow, north-trending mountain ranges separated by wide, flat,
 11 sediment-filled valleys. The Middle Rocky Mountains province is characterized by high
 12 mountains carved by streams and glaciers. The most-rugged terrain at Camp Williams occurs
 13 the eastern portion of the installation. The highest elevation is Sheps Ridge located within the
 14 Oquirrh Mountains, at an approximate elevation of 7,255 feet above mean sea level. Across the
 15 57-acre Proposed Action site, elevations range from about 4,600 to 4,750 feet above mean sea
 16 level.

17 3.5.2.3 Soils

18 Parent material consisting of quartzite, limestone, sandstone, granite, andesite, basalt, and
 19 conglomerate form the soils at Camp Williams (UTARNG, 2007a). The pluvial Lake Bonneville
 20 cycle strongly influenced the geomorphology, resulting in lower-elevation soils predominately
 21 consisting of dissected lake bottom sediments, alluvial fans, deltas, and lake terraces associated
 22 with Bonneville shorelines. The soils across Camp Williams are well drained or somewhat
 23 excessively drained, with textures ranging from silty clay to sandy loam. Most soils are silt loam
 24 and clay loam, with a large surface rock fragment content of gravel, cobble, or stone and are
 25 slightly to very strongly calcareous (UTARNG, 2007a).

26 The primary soil compositions underlying the 57-acre Proposed Action site are presented in
 27 Table 3-4, and shown in map view on Figure 3-3. The primary soil present near the Proposed
 28 Action site include, in order from greatest area to least area, Sterling gravelly fine sandy loam
 29 (48.7 percent), Pleasant Vale gravelly sandy loam (29.3 percent), the Hillfield-Sterling Complex
 30 (16.0 percent), Hillfield silt loam (4.2 percent), and the Taylorsville silty clay loam, 3 to 6 percent
 31 slopes, eroded (1.8 percent).

TABLE 3-4
 Mapped Soils near the Proposed Action Site

Map Unit Symbol	Map Unit Name	Parent Material	Slope Percent	Acres in Proposed Action Site	Percent of Proposed Action Site
HmE	Hillfield silt loam	Lacustrine deposits derived from mixed sources	10 to 20	2.4	4.2
HOF	Hillfield-Sterling complex	Lacustrine deposits derived from mixed sources	20 to 35	9.2	16.0
PrD	Pleasant Vale gravelly sandy loam, extended season	Alluvium derived from limestone, sandstone, quartzite, and shale	6 to 10	16.8	29.3

TABLE 3-4
Mapped Soils near the Proposed Action Site

Map Unit Symbol	Map Unit Name	Parent Material	Slope Percent	Acres in Proposed Action Site	Percent of Proposed Action Site
SgD	Sterling gravelly fine sandy loam	Lacustrine deposits derived from mixed sources	6 to 10	27.9	48.7
TcC2	Taylorville silty clay loam, extended season	Lacustrine deposits derived from limestone and shale	3 to 6 (eroded)	1.1	1.8
		Total		57.3	100

1 For a complete report on soil classification for the Proposed Action site, refer to the NRCS
2 Custom Soil Reports for the Camp Williams Lower Garrison area (NRCS, 2015).

3 **3.5.2.4 Soil Erosion Susceptibility**

4 Geologic erosion occurs slowly everywhere under natural conditions, but when an area
5 becomes disrupted, the rate of erosion can increase to unacceptable levels. Most of Camp
6 Williams has been classified as nonsensitive to soil erosion under natural conditions; however,
7 based on assumptions and estimates used to generate the soil loss model, this evaluation should
8 be considered a qualitative assessment (UTARNG, 2007a). The following mapping units have a
9 severe hazard of erosion on roads and trails: HmE and HOF. These units comprise
10 approximately 20.2 percent of the Proposed Action site.

11 **3.5.2.5 Prime Farmland**

12 Prime and unique farmlands require analysis within ARNG NEPA documents per the
13 Farmland Protection Policy Act of 1981 (FPPA) (7 USC 4201 *et seq.*). As defined in the FPPA,
14 prime farmland is land that has the best combination of physical and chemical characteristics
15 for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum
16 inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. Unique
17 farmland is land other than prime farmland that is used for the production of specific
18 high-value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruits, and
19 vegetables.

20 Prime farmland does not include land already in, or committed to, urban development or water
21 storage. Farmland already in urban development or water storage includes all such land with a
22 density of 30 structures per 40-acre area. Agriculture and irrigation are not current operations at
23 Camp Williams, and are not planned for future operations (UTARNG, 2007a).

24 Approximately 50.5 percent (29 acres) of the Proposed Action site is classified as Prime
25 Farmland if Irrigated (shown in tan on Figure 3-3). The remaining 49.5 percent of the area is not
26 Prime Farmland (shown in brown on Figure 3-3).

27 **3.5.2.6 Hydric Soils**

28 No hydric soils are mapped in the Proposed Action site.

1 3.5.2.7 Geologic Hazards

2 The geologic hazards proximal to Camp Williams and the Proposed Action site that could
3 potentially endanger lives or threaten property include faults and earthquakes, landslides and
4 rockslides, liquefaction, and erosion.

5 **Faults**

6 No fault lines are present within the Proposed Action site. Two fault zones, with numerous
7 associated faults, occur within close proximity to Camp Williams, including the West Valley
8 Fault Zone and the Wasatch Fault Zone. The West Valley Fault Zone is located to the north of
9 Camp Williams and measures 16 kilometers in length. It is composed of two seismogenic
10 segments – the Taylorsville Fault and the Granger Fault (UGS, 2013).

11 The Wasatch Fault Zone is to the northeast of Camp Williams and measures 350 kilometers in
12 length. It is composed of 10 seismogenic segments that are thought to behave at least somewhat
13 independently. The Wasatch Fault Zone is one of the longest and most-tectonically active
14 normal faults in North America, with an abundance of recurrent Holocene surface faulting
15 (faults with evidence of Holocene [about 10,000 years ago to present] movement are the main
16 concern because they are most likely to generate future earthquakes). The two faults within the
17 Wasatch Fault Zone that could impact topography proximal to Camp Williams are the Provo
18 Section and the Salt Lake City Section (UGS, 2013).

19 To the south of Camp Williams are the Utah Lake Faults, which are not associated with a major
20 fault zone. Seismic-reflection data identify the Utah Lakes faults as poorly understood late
21 Pleistocene to Holocene faults and folds beneath Utah Lake. These faults are northeast- to
22 northwest-trending beneath Utah Lake in Utah Valley (UGS, 2013).

23 **Earthquakes and Ground Shaking**

24 The USGS and the UGS have produced earthquake probability and seismic hazard maps based
25 on current information about the rate at which earthquakes occur in different areas and on how
26 far strong shaking extends from the quake source. The probability of a magnitude 5.5
27 earthquake within 50 kilometers of Camp Williams in the next 50 years ranges from 25 to
28 30 percent. Shaking is expressed as a percentage of the force of gravity (percent g) and is
29 proportional to the hazard faced by a particular type of building. The 2005 Utah Seismic Safety
30 Commission Map shows that the Camp Williams Lower Garrison region has a 2 percent chance
31 of exceeding 0.4 to 0.5 percent g in 50 years (UGS, 2013), and the 2008 United States National
32 Seismic Hazards Map shows consistent ratings (USGS, 2013).

33 **Rockslides and Landslides**

34 Many rockslides and landslides are associated with rising groundwater levels due to rainfall,
35 snowmelt, and landscape irrigation. Therefore, landslides in Utah typically occur during the
36 months of March, April, and May, although debris flows associated with intense thunderstorm
37 rainfall are common in July. Areas in Utah that are prone to rockslides and landslides are steep
38 slopes in weak geologic materials, at the mouths of drainages, slopes below leaking canals or
39 ponds, and below outcrops of fractured rock.

40 UGS has created a landslide susceptibility map, which shows Camp Williams to be located in a
41 region of moderate landslide susceptibility. The closest landslides mapped by UGS in the
42 vicinity of the Proposed Action site are across the Jordan Narrows, on the eastern side of the
43 valley in the Traverse Mountains.

1 **Liquefaction**

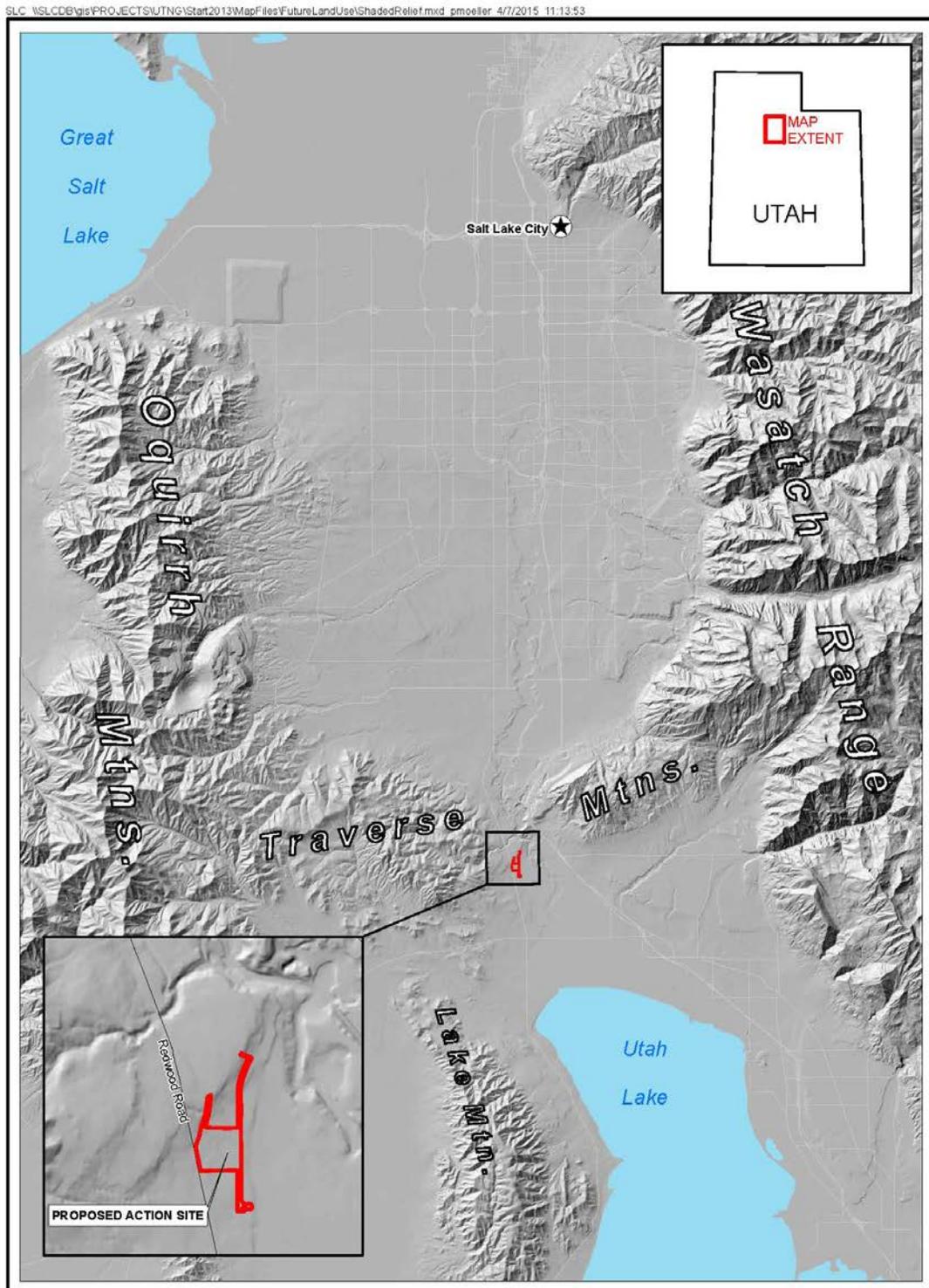
2 The valleys of the Wasatch Front are especially vulnerable to liquefaction because of susceptible
3 soils, shallow groundwater, and relatively high probability of moderate to large earthquakes.

4 The following two conditions must exist for liquefaction to occur: (1) the soil must be
5 susceptible to liquefaction (loose, water-saturated, sandy soil, typically between 0 and 30 feet
6 below the ground surface) and (2) ground shaking must be strong enough to cause susceptible
7 soils to liquefy. The most-susceptible soils are generally along rivers, streams, and lake
8 shorelines, as well as in some ancient river and lake deposits. The liquefaction potential of the
9 Proposed Action site ranges from low to moderate (UGS, 2013).

10 **Erosion**

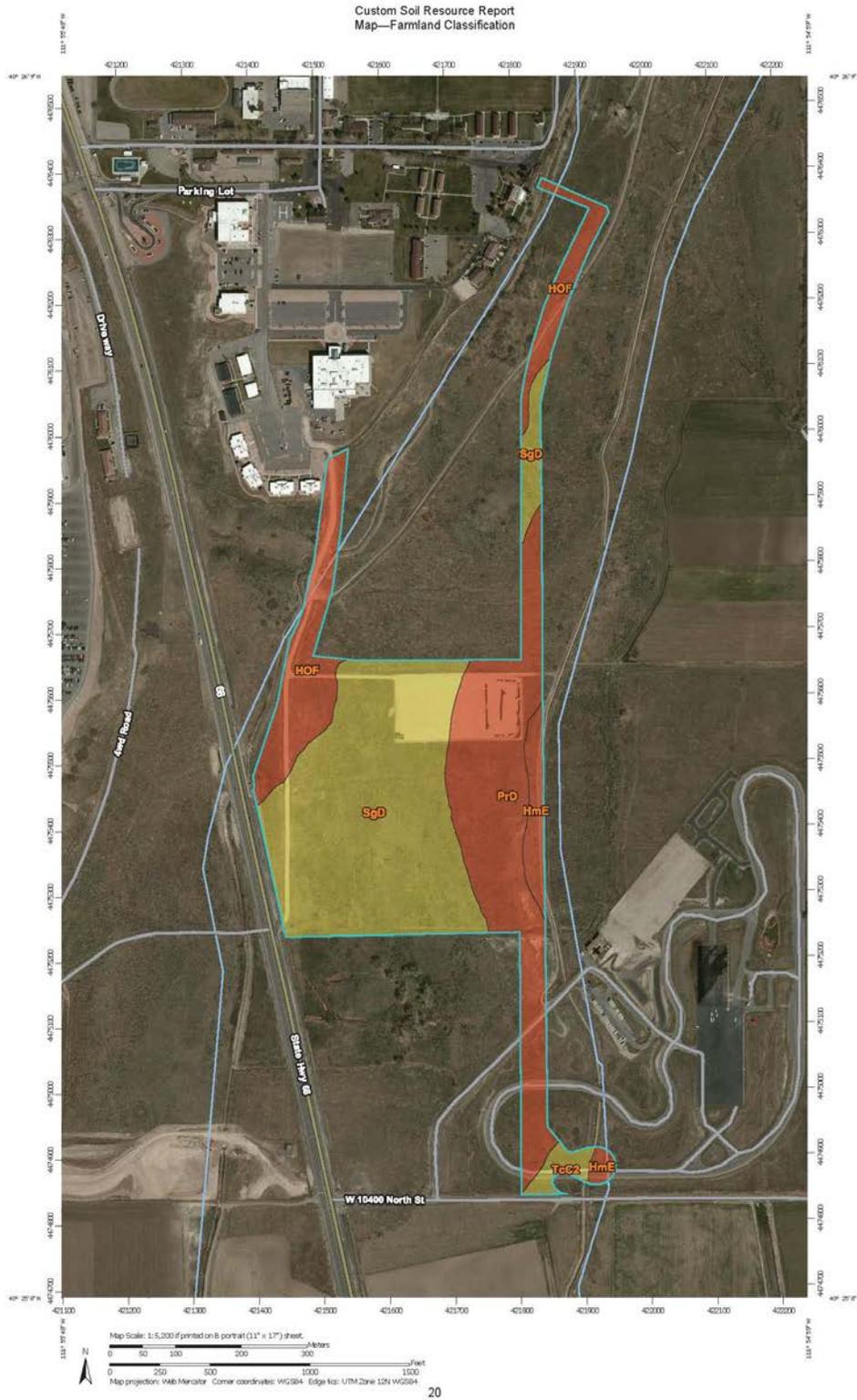
11 Most of Camp Williams is classified as non-sensitive to soil erosion under natural conditions.
12 Roads, ridge tops, and areas formerly used for agriculture due to the lack of vegetation are the
13 most sensitive areas (UTARNG, 2007a). Soil erosion within the Proposed Action site has
14 previously been mapped as low risk (UTARNG, 2007a).

1 FIGURE 3-2
2 Shaded-relief Map showing Traverse Mountains and the Proposed Action Site



3

1 **FIGURE 3-3**
2 **Soil Resources and Prime Farmland Classification Map**



3

1 3.6 Water Resources

2 3.6.1 Definition of the Resource

3 3.6.1.1 Surface Water

4 Surface water resources consist of lakes, rivers, streams, and floodplains. Surface water is
5 important for its contributions to the economic, ecological, recreational, and human health of a
6 community or locale.

7 3.6.1.2 Groundwater

8 Groundwater consists of subsurface hydrologic resources. It is an essential resource that
9 functions to recharge surface water and is used for drinking, irrigation, and industrial
10 processes. Groundwater typically can be described in terms of depth from the surface, aquifer
11 or well capacity, water quality, recharge rate, and surrounding geologic formations.

12 3.6.1.3 Wetlands and Waters of the United States

13 Waters of the United States are defined within the Clean Water Act, as amended, and
14 jurisdiction is addressed by EPA and the United States Army Corps of Engineers (USACE).
15 These agencies assert jurisdiction over (1) traditional navigable water, (2) wetlands adjacent to
16 navigable water, (3) non-navigable tributaries of traditional navigable waters that are relatively
17 permanent where the tributaries typically flow year round or have continuous flow at least
18 seasonally (e.g., typically 3 months), and (4) wetlands that directly abut such tributaries.

19 Wetlands have been defined by agencies responsible for their management. The term “wetland”
20 used herein, is defined using USACE conventions. USACE has jurisdiction to protect wetlands
21 under Section 404 of the Clean Water Act using the following definition:

22 . . . areas that are inundated or saturated by surface or ground water at a frequency and
23 duration sufficient to support, and that under normal circumstances do support, a
24 prevalence of vegetation typically adapted for life in saturated soil conditions
25 (33 CFR 328.3[b]). Wetlands generally include swamps, marshes, bogs, and similar areas.
26 Wetlands have three diagnostic characteristics that include (1) over 50 percent of the
27 dominant species present must be classified as obligate, facultative wetland, or
28 facultative, (2) the soils must be classified as hydric, and (3) the area is either
29 permanently or seasonally inundated, or saturated to the surface at some time during
30 the growing season of the prevalent vegetation.

31 EO 11990, *Protection of Wetlands*, requires that federal agencies provide leadership and take
32 actions to minimize or avoid the destruction, loss, or degradation of wetlands and to preserve
33 and enhance the natural and beneficial values of wetlands. Federal agencies are to avoid new
34 construction in wetlands, unless the agency finds there is no practicable alternative to
35 construction in the wetland, and the proposed construction incorporates all possible measures
36 to limit harm to the wetland.

37 3.6.1.4 Floodplains

38 EO 11988 requires federal agencies to avoid to the extent possible the long- and short-term
39 adverse impacts associated with the occupancy and modification of flood plains and to avoid
40 direct and indirect support of floodplain development wherever there is a practicable

1 alternative. In accomplishing this objective, “each agency shall provide leadership and shall
2 take action to reduce the risk of flood loss, to minimize the impact of floods on human safety,
3 health, and welfare, and to restore and preserve the natural and beneficial values served by
4 flood plains in carrying out its responsibilities” for the following actions:

- 5 • Acquiring, managing, and disposing of federal lands and facilities
- 6 • Providing federally undertaken, financed, or assisted construction and improvements
- 7 • Conducting federal activities and programs affecting land use, including, but not limited
8 to, water and related land resources planning, regulation, and licensing activities

9 Floodplains covered under EO 11988 include the 100-year floodplain, which is that area with a 1
10 percent or greater chance of flooding in a given year.

11 **3.6.2 Description of the Affected Environment**

12 **3.6.2.1 Surface Water**

13 The largest regional body of surface water in relation to the Proposed Action site is the Jordan
14 River, which is a perennial stream that conveys water from Utah Lake in Utah County, toward
15 the north, into Salt Lake County, Utah, and ultimately discharges into the Great Salt Lake. The
16 closest portion of the Jordan River to the Proposed Action site is approximately 2,000 feet from
17 the northern road and utility alignment of the Proposed Action site. The Jordan River is located
18 within the Utah Lake/Jordan River Watershed Management Unit in north-central Utah. The
19 management unit includes streams that drain into Utah Lake, the Jordan River and its
20 tributaries from Utah Lake to the Great Salt Lake. The Jordan River is located within USGS
21 Hydrological Unit 16020201. The Jordan River is classified as Category 5 (impaired by pollutant,
22 total maximum daily load required) in the Jordan River/Utah Lake Management Unit
23 Assessment Categories 2010 map. The State of Utah October 2010 Integrated Report 303 (d)
24 listing lists the cause of impairment in the Jordan River segment closest to the Proposed Action
25 site as water temperature and total dissolved solids. Sources of impairment are listed as
26 industrial and municipal point source discharge, natural sources, and urban runoff/storm
27 sewers. The results in impacts to designated beneficial uses of cold water aquatic life and
28 agricultural. Several ephemeral drainages direct flows from west to east and into the Jordan
29 River along the eastern boundary. The Jordan River is considered sovereign land, which is
30 owned by the State of Utah and managed by the Department of Natural Resources Division of
31 Forestry, Fire, and State Lands (FFSL). Any disturbance to or use of the banks or bed of the river
32 requires prior authorization from FFSL (see Appendix C).

33 There are two surface water canals present directly adjacent to the Proposed Action site – the
34 Utah Lake Distributing Canal and the Provo Reservoir Canal (also known as the Welby-Jacob
35 Canal). The Utah Lake Distributing Canal is located east of the Proposed Action site; the Provo
36 Reservoir Canal is located west of the Proposed Action site. The Utah Lake Distributing Canal,
37 which was reportedly constructed sometime during 1913, conveys water from Utah Lake in
38 Utah County toward the north and into Salt Lake County (UTARNG, 2008b). The Provo
39 Reservoir Canal supplies water from the Jordan River at a point north of the Proposed Action
40 site. The supplied water flows in two different directions – north toward Salt Lake County and
41 south toward Utah County (UTARNG, 2000). Typically, the canals only convey surface water
42 during portions of spring, summer, and fall (UTARNG, 2008b). At the time of the December

1 2013 site visit, the Utah Lake Distributing Canal open canal channel was being replaced with a
2 box culvert.

3 Existing claims to water rights within the Proposed Action site consist of Water Right 59-3647,
4 which is owned by the United States Department of the Army, Utah National Guard.

5 3.6.2.2 Groundwater

6 The Proposed Action site is located within the Tickville Spring groundwater basin. Two
7 groundwater aquifers are thought to lie beneath Camp Williams. They are known to include a
8 shallow, semiconfined aquifer and a deep, semi-confined aquifer. However, to date, neither the
9 shallow or deep groundwater aquifer beneath Camp Williams has been formally classified
10 under Utah Administrative Code R317-6, *Groundwater Quality Protection*. The groundwater flow
11 direction of the shallow aquifer would be expected to be from east to west toward the Jordan
12 River. The deep aquifer is approximately 550 to 1,000 feet below ground surface at
13 Camp Williams and is not presently used as a drinking water source (NSA, 2009).

14 Camp Williams Water Supply Well #1 is located approximately 500 feet northeast of the
15 northern road and utility alignment of the Proposed Action site and is screened at two
16 intervals—305 to 325 feet and 415 to 445 feet. Reportedly following well construction, the static
17 water level within the well was approximately 176 feet below grade. At the time of initial
18 testing, the reported yield of the well was 500 gallons per minute (gpm), with an estimated
19 transmissivity of approximately 3,640 ft² per day. Reportedly, the existing pump in the well is
20 capable of producing a maximum yield of approximately 240 gpm (NSA, 2009). Potential
21 contaminant sources within the 2-mile drinking water source protection management area
22 include sources associated with Camp Williams activities, surface water bodies, SR 68
23 maintenance activities and possible spills, and private rural residential and agricultural land
24 use. Sources of point and nonpoint pollution are discussed in detail in the *Drinking Water Source*
25 *Projection Plan for Camp Williams Water Supply Well Report* (UTARNG, 2000).

26 3.6.2.3 Wetlands and Waters of the United States

27 The United States Fish and Wildlife Service (USFWS) National Wetlands Inventory does not
28 include any features on the Proposed Action site. The nearest mapped wetlands is located
29 approximately 2,500 feet from the northern road and utility alignment of the Proposed Action
30 site.

31 3.6.2.4 Floodplains

32 The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for
33 Lehi, Utah County, Utah, Panel 105 of 725, Community-Panel Number 4902090105 C
34 (FEMA, 2002), was reviewed to evaluate the potential presence of floodplains on the Proposed
35 Action site. No floodplains are mapped on the Proposed Action site on the FEMA FIRM for this
36 area.

3.7 Biological Resources

3.7.1 Definition of the Resource

Biological resources include native or naturalized plants and animals and the habitats in which they exist. This section describes the vegetation, native and nonnative wildlife, and protected and sensitive species known or likely to occur within the Proposed Action site.

Protected and sensitive biological resources include federally listed (endangered or threatened), proposed and candidate species, and designated or proposed critical habitat; species protected under other federal laws; species of concern managed under Conservation Agreements or Management Plans; and state-listed species. Under the ESA (16 USC 1536), an “endangered species” is defined as any species in danger of extinction throughout all or a significant portion of its range. A “threatened species” is defined as any species likely to become an endangered species in the foreseeable future. The USFWS maintains a list of species considered to be candidates for possible listing under the ESA. Although candidate species receive no statutory protection under the ESA, the USFWS has attempted to advise government agencies, industry, and the public that these species are at risk and might warrant protection under the Act.

3.7.2 Description of the Affected Environment

Site surveys of the northern portion of the Proposed Action site were conducted in April 2009 as part of the EA for the National Data Center (NSA, 2009). Wildlife and plant species found within Camp Williams are summarized below; a complete record of flora and fauna known to occur on-site is included in the INRMP (UTARNG, 2007a).

3.7.2.1 Regional Vegetation

The Proposed Action site is classified as Intermountain Semi-desert and Desert Province Ecoregion (Bailey, 1995). Vegetation of this province can be characterized by the predominance of big sagebrush habitats at lower elevations (Bailey, 1995). Other important plants in the sagebrush belt are antelope bitterbrush, shadscale saltbush (*Atriplex confertifolia*), fourwing saltbush (*Atriplex canescens*), rubber rabbitbrush (*Ericameria nauseosa*), spiny hopsage (*Grayia spinosa*), horsebrush (*Tetradymia sp.*), and short-statured Gambel oak. Although sagebrush is currently the dominant species in this zone, it might not represent climax growth, but rather a disclimax produced by overgrazing. In plots protected from fire, grasses typical of the Palouse grassland in Washington or mixed-grass steppe gradually become dominant (Bailey, 1995).

3.7.2.2 Specific Vegetation near the Proposed Action Site

The Proposed Action site can be characterized as predominate big sagebrush, with intermixed rabbitbrush habitat. As a result of steep topography in portions of the Proposed Action site, several ephemeral dry wash drainages have developed over time, and are characterized as antelope bitterbrush (*Purshia tridentata*) and skunkbush sumac (*Rhus trilobata*) habitat. In disturbed areas near the Proposed Action site (e.g., construction debris piling, graded parking area in the central portion of the site), the big sagebrush habitats have been replaced by numerous invasive species, such as cheatgrass, musk thistle, scotch thistle (*Carduus nutans*), redstem stork's-bill filaree, common mullein (*Verbascum blattaria*), Russian olive (*Elaeagnus angustifolia*), saltcedar (*Tamarix sp.*), and various other bromus grass species. Plant species identified on the site during the 2009 site visit are presented in Table 3-5.

TABLE 3-5
Species Observed in the Northern Lower Garrison during April 2009 Site Visit

Common Name	Scientific Name	Observations
Birds		
American coot	<i>Fulica americana</i>	Nearby Jordan River
American robin	<i>Turdus migrates</i>	
Black-billed magpie	<i>Pice hudsonia</i>	
Brown-headed cowbird	<i>Molothrus ater</i>	
Canada goose	<i>Branta Canadensis</i>	Nearby Jordan River
Chipping sparrow	<i>Spizella passerine</i>	
Common raven	<i>Corvus corax</i>	
Cooper's hawk	<i>Accipiter cooperii</i>	Nesting
European starling	<i>Sturnus vulgaris</i>	
Horned lark	<i>Eremophila alpestris</i>	
House sparrow	<i>Passer domesticus</i>	
Killdeer	<i>Charadrius vociferous</i>	Nesting
Mourning dove	<i>Zenaida macroura</i>	
Red-tailed hawk	<i>Bueo jamaicensis</i>	Nesting
Rock dove	<i>Columba livia</i>	
Western kingbird	<i>Tyrannus verticalis</i>	
Mammals		
Bobcat	<i>Felis rufus</i>	Scat
Coyote	<i>Canis latrans</i>	Scat and footprints
Least chipmunk	<i>Eutamias minimus</i>	
Mule deer	<i>Odocoileus hemionus</i>	
Northern pocket gopher	<i>Thomomys talpoides</i>	Burrows
Rock squirrel	<i>Spermophilus variegates</i>	
Invertebrates		
Darkling beetle	<i>Eleodes obscures</i>	
Harvester ants	<i>Pogonomyrmex sp.</i>	Mounds
Mourning Cloak	<i>Nymphalis antiopa</i>	
Sagebrush checkerspot	<i>Chlosyne acastus</i>	
Plants		
Big sagebrush	<i>Artemisia tridentate</i>	
Boxelder	<i>Acer negundo</i>	Nearby Jordan River
Brittle pricklypear	<i>Opuntia fragilis</i>	
Broadleaf cattail	<i>Typha latifolia</i>	Nearby Jordan River
Brome species	<i>Bromus sp.</i>	
Bull thistle	<i>Cirsium vulgare</i>	
Cheatgrass	<i>Bromus tectorum</i>	
Chokecherry	<i>Prunus virginiana</i>	

TABLE 3-5
Species Observed in the Northern Lower Garrison during April 2009 Site Visit

Common Name	Scientific Name	Observations
Common mullein	<i>Verbascum thapus</i>	
Common reed	<i>Phragmites australis</i>	Nearby Jordan River
Common sunflower	<i>Helianthus annuus</i>	
Crested wheatgrass	<i>Agropyron cristatum</i>	
Kentucky bluegrass	<i>Poa pratensis</i>	
Leafy spurge	<i>Euphorbia esula</i>	
Musk thistle	<i>Carduus nutans</i>	
Orchardgrass	<i>Dactylis glomerata</i>	
Perennial ryegrass	<i>Lolium perenne</i>	
Russian Knapweed	<i>Acroptilon repens</i>	Near NSA parcel
Russian olive	<i>Elaeagnus angustifolia</i>	
Saltcedar	<i>Tamarix ramosissima</i>	
Scotch thistle	<i>Onopordum acanthium</i>	
Skunkbush sumac	<i>Rhus trilobata</i>	
Stinging nettle	<i>Urtica dioica</i>	
Wavy-leaf Indian paintbrush	<i>Castilleja applegatei</i>	
Yellow rabbitbush	<i>Chrysothamnus viscidiflorus</i>	

1

2 3.7.2.3 Birds

3 Based on the regular spring bird surveys conducted at Camp Williams between 1994 and 2005,
 4 137 species of birds have been observed and identified on Camp Williams. Of these, 128 species
 5 are found on the Migratory Bird List and are protected under the Migratory Bird Treaty Act
 6 (UTARNG, 2007a). Ten bird species on Camp Williams’ avian species list (see Appendix D,
 7 UTARNG, 2007a) are designated by USFWS as Birds of Conservation Concern in the Great
 8 Basin Conservation Region 9 (USFWS, 2008) (see Table 3-6); however, none of these species
 9 were observed during the 2009 survey of the Lower Garrison. Additionally, breeding on
 10 Camp Williams has been documented for 51 species, and is suspected for an additional
 11 30 species (UTARNG, 2007a).

TABLE 3-6
Species Listed on the Birds of Conservation Concern for the Great Basin Region 9

Common Name	Scientific Name	Identified during Camp Williams Bird Surveys	Scarcity
Greater Sage-Grouse (a)	<i>Centrocercus urophasianus</i>	No	—
Eared Grebe (nb)	<i>Podiceps nigricollis</i>	No	—
Bald Eagle (b)	<i>Haliaeetus leucocephalus</i>	Yes	Solitary
Ferruginous Hawk	<i>Buteo regalis</i>	No	—
Golden Eagle	<i>Aquila chrysaetos</i>	Yes	Common
Peregrine Falcon (b)	<i>Falco peregrinus</i>	No	—

TABLE 3-6
Species Listed on the Birds of Conservation Concern for the Great Basin Region 9

Common Name	Scientific Name	Identified during Camp Williams Bird Surveys	Scarcity
Yellow Rail	<i>Coturnicops noveboracensis</i>	No	—
Snowy Plover (c)	<i>Charadrius alexandrinus nivosus/tenuirostris</i>	No	—
Long-billed Curlew	<i>Numenius americanus</i>	No	—
Marbled Godwit (nb)	<i>Limosa fedoa</i>	No	—
Yellow-billed Cuckoo (a)	<i>Coccyzus americanus</i>	No	—
Flammulated Owl	<i>Otus flammeolus</i>	No	—
Black Swift	<i>Cypseloides niger</i>	No	—
Calliope Hummingbird	<i>Stellula calliope</i>	No	—
Lewis's Woodpecker	<i>Melanerpes lewis</i>	No	—
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	No	—
White-headed Woodpecker	<i>Picooides albolarvatus</i>	No	—
Willow Flycatcher (c)	<i>Empidonax traillii</i>	Yes	Occasional
Loggerhead Shrike	<i>Lanius ludovicianus</i>	Yes	Rare
Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>	Yes	Uncommon
Sage Thrasher	<i>Oreoscoptes montanus</i>	Yes	Rare
Virginia's Warbler	<i>Vermivora virginiae</i>	Yes	Common
Green-tailed Towhee	<i>Pipilo chlorurus</i>	Yes	Common
Brewer's Sparrow	<i>Spizella breweri</i>	Yes	Common
Black-chinned Sparrow	<i>Spizella atrogularis</i>	No	—
Sage Sparrow	<i>Amphispiza belli</i>	Yes	Occasional
Tricolored Blackbird	<i>Agelaius tricolor</i>	No	—
Black Rosy-Finch	<i>Leucosticte atrata</i>	No	—

Notes:

(a) = ESA candidate

(b) = ESA delisted

(c) = Non-listed subspecies or population of threatened or endangered species

(nb) = Nonbreeding in the BCR

Scarcity reflects how often out of 11 bird survey years: solitary = either one or single sighting outside of survey;

occasional = 1 to 2; rare = 3 to 5; uncommon = 6 to 9; common = 10 to 11

Sources:<http://www.fws.gov/migratorybirds/NewReportsPublications/SpecialTopics/BCC2008/BCC2008.pdf>.http://www.ut.ngb.army.mil/environ/Natural_Resources.htm.

3.7.2.4 Mammals

Common mammalian species found at Camp Williams include mule deer (*Odocoileus hemionus*), bobcat (*Felis rufus*), coyote (*Canis latrans*), mountain lion (*Felis concolor*), striped skunk (*Mephitis mephitis*), and several species of rodents. Thirty-one mammalian species have been identified on Camp Williams, including twelve species of rodents, seven medium-sized mammals (e.g., rabbits, raccoon, and striped skunk), 5 predators (coyote, bobcat, mountain lion, weasel, and red fox [*Vulpes vulpes*]), four species of bats, and three ungulates (UTARNG, 2007a). As of December 2005, 28 adult and juvenile cougars had been captured and marked on

1 Camp Williams as part of an ongoing radiotelemetry study initiated in January 1997
 2 (UTARNG, 2007a). Mule deer are well documented on Camp Williams (UTARNG, 2007a).
 3 During the reconstruction of Highway 68, the main vehicle underpass was enlarged to facilitate
 4 mule deer crossing and to mitigate vehicle accidents. Populations of mule deer are regularly
 5 observed across the Proposed Action site.

6 **3.7.2.5 Reptiles and Amphibians**

7 Seven reptilian and three amphibian species have been identified on Camp Williams. Reptiles
 8 include western yellowbelly racer (*Coluber constrictor*), Great Basin rattlesnake (*Crotalus viridis*),
 9 striped whipsnake (*Masticophis taeniatus*), Great Basin gopher snake (*Pituophis melanoleucus*),
 10 short-horned lizard (*Phrynosoma douglassii*), northern sagebrush lizard (*Sceloporus graciosus*),
 11 and northern sideblotched lizard (*Uta stansburiana*). Documented amphibians include
 12 Woodhouse’s toad (*Bufo woohousii*), northern leopard frog (*Rana pipiens*), and Great Basin
 13 spadefoot toad (*Scaphiopus intermontana*). Although Camp Williams only encompasses a small
 14 section of the shoreline of the Jordan River, this area exhibits the highest herptofauna diversity
 15 of all habitat types occurring on Camp Williams (UTARNG, 2007a).

16 **3.7.2.6 Fish**

17 The Jordan River runs adjacent to the eastern boundary of Camp Williams and east of the
 18 Proposed Action site. According to the 2009 Salt Lake Countywide Watershed – Water Quality
 19 Stewardship Plan (Salt Lake County, 2009), surveys of fish through the Jordan Narrows
 20 (downstream of the Turner Dam and Camp Williams) identified 17 fish species, including carp
 21 (*Cyprinus carpio*), black crappie (*Pomoxis nigromaculatus*), black bullhead (*Ameiurus melas*),
 22 fathead minnow (*Pimephales promelas*), mountain sucker (*Catostomus platyrhynchus*), rainbow
 23 trout (*Oncorhynchus mykiss*), cutthroat trout (*Oncorhynchus clarki*), brown trout (rare) (*Salmo*
 24 *trutta*), Utah sucker (*Catostomus ardens*), walleye (*Sander vitreus*), white bass (*Morone chrysops*),
 25 yellow perch (*Perca flavescens*), bluegill (*Lepomis macrochirus*), green sunfish (*Lepomis cyanellus*),
 26 largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), and channel
 27 catfish (*Ictalurus punctatus*).

28 None of the species identified in the 2009 Salt Lake Countywide Watershed – Water Quality
 29 Stewardship Plan for the Jordan Narrows are federal- or state-listed species of concern or
 30 receiving special management (see Table 3-7). It should be noted, however, that the June Sucker
 31 (*Chasmistes liorusin*) is a federally-listed endangered species identified in Utah Lake and the
 32 Jordan River is the outlet for Utah Lake.

TABLE 3-7
 Listed Species Potentially Occurring in Utah or Salt Lake Counties

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence on Proposed Action Site Based on Habitat Availability
Plants					
Ute ladies'-tresses	<i>Spiranthese diluvialis</i>	T	None	Wet meadows, along streams, abandoned stream meanders, springs, lake shores	None

TABLE 3-7
Listed Species Potentially Occurring in Utah or Salt Lake Counties

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence on Proposed Action Site Based on Habitat Availability
Deseret milkvetch	<i>Astragalus desereticus</i>	T	None	Steep facing slopes in open pinyon-juniper-sagebrush communities	None
Clay phacelia	<i>Phacelia argillacea</i>	E	None	Endemic to Spanish Fork Canyon in Utah County	None
Birds					
American white pelican	<i>Pelecanus erythrorhynchos</i>	None	SPC	Lakes, rivers	None
Bald eagle	<i>Haliaeetus leucocephalus</i>	None	SPC	Lakes, rivers	Potentially present
Black Swift	<i>Cypseloides niger</i>	None	SPC	Cliffs, waterfalls	None
Bobolink	<i>Dolichonix oryzivorus</i>	None	SPC	Wetlands	None
Ferruginous hawk	<i>Buteo regalis</i>	None	SPC	Dry, open country	Potentially present
Grasshopper sparrow	<i>Ammodramus savannarum</i>	None	SPC	Pastures, grasslands	Potentially present
Greater sage-grouse	<i>Centrocercus urophasianus</i>	None	SPC	Sagebrush	Unlikely
Lewis's Woodpecker	<i>Melanerpes lewis</i>	None	SPC	Open woodland	Unlikely
Long-billed curlew	<i>Numenius mericanus</i>	None	SPC	Wet and dry uplands	Potentially present
Northern goshawk	<i>Accipiter gentilis</i>	None	CS	Mature mountain forest and riparian zone habitats	Unlikely
Short-eared owl	<i>Asio flammeus</i>	None	SPC	Open country	Potentially present
Three-toes woodpecker	<i>Picoides tridactylus</i>	None	SPC	Engelmann spruce, sub-alpine fir, Douglas fir, grand fir, ponderosa pine, tamarack, aspen, and lodgepole pine	None
Western burrowing owl	<i>Athene cunicularia</i>	None	SPC	Open country	Potentially present
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	T	None	Riparian, woodlands	Potentially present
Mammals					
Fringed myotis	<i>Myotis thysanodes</i>	None	SPC	Caves, mines, and buildings, most often in desert and woodland areas	Unlikely
Kit fox	<i>Vulpes macrotis</i>	None	SPC	Sandy soils, sagebrush	Unlikely

TABLE 3-7
Listed Species Potentially Occurring in Utah or Salt Lake Counties

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence on Proposed Action Site Based on Habitat Availability
Pygmy rabbit	<i>Sylvilagus idahoensis</i>	None	SPC	Sandy soils, sagebrush	Unlikely
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	None	SPC	Forested areas	Unlikely
Spotted bat	<i>Euderma maculatum</i>	None	SPC	Range from deserts to forested mountains; roost and hibernate in caves and rock crevices	Unlikely
Western red bat	<i>Lasiurus blossevillii</i>	None	SPC	Near water, often in wooded areas	Unlikely
White-tailed prairie dog	<i>Cynomys leucurus</i>	None	SPC	Desert grasslands and shrub grasslands	Unlikely
Brown (Grizzly) bear	<i>Ursus arctos horribilis</i>	T	None	Mountains, forests, coastal areas, streams and rivers	None (Extirpated)
Amphibians					
Columbia spotted frog	<i>Rana luteiventris</i>	None	CS	Perennial aquatic habitats, small pools or ponds	None
Western (boreal) toad	<i>Bufo boreas</i>	None	SPC	Slow moving streams, wetlands, desert springs, ponds, lakes, meadows, and woodlands	Potentially present
Reptiles					
Smooth greensnake	<i>Opheodrys vernalis</i>	None	SPC	Moist, grassy areas and meadows	Unlikely
Fish					
Bonneville cutthroat trout	<i>Oncorhynchus clarkia utah</i>	None	CS	High elevation streams and lakes	None
Bluehead sucker	<i>Catostomus discobolus</i>	None	CS	Streams	None
Colorado River cutthroat trout	<i>Oncorhynchus clarkia pleuriticus</i>	None	CS	Isolated high-elevation headwater streams	None
June sucker	<i>Chasmistes liorus</i>	E	None	Utah Lake and Provo River	None
Least chub	<i>Lotichthys phlegethontis</i>	None	CS	Ponds, streams, springs	None
Roundtail chub	<i>Gila robusta</i>	None	CS	Pools in large rivers and streams	None
Southern leatherside chub	<i>Lepidomeda aliciae</i>	None	SPC	Streams and rivers	None

TABLE 3-7
Listed Species Potentially Occurring in Utah or Salt Lake Counties

Common Name	Scientific Name	Federal Status	State Status	Habitat	Potential for Occurrence on Proposed Action Site Based on Habitat Availability
Invertebrates					
California floater	<i>Anodonta californiensis</i>	None	SPC	Shallow areas of lakes, ponds, and large rivers	None
Utah physa	<i>Physella utahensi</i>	None	SPC	Spring-fed pools; Utah Lake (extirpated)	None
Southern Bonneville springsnail	<i>Pyrgulopsis transversa</i>	None	SPC	Springs	None
Eureka mountainsnail	<i>Oreohelix eurekaensis</i>	None	SPC	Limestone rocks	None
Lyrate mountainsnail	<i>Oreohelix haydeni</i>	None	SPC	Limestone rocks	None
Western pearlshell	<i>Margaritifera falcate</i>	None	SPC	Small streams, possibly extirpated	None

Notes:

CS = Species receiving special management under a Conservation Agreement in order to preclude the need for Federal listing.

E = Endangered

SPC = Species of concern

T = Threatened

Sources: Utah Division of Wildlife Resources (UDWR), 2009a, 2009b, 2009c, 1999; USFWS, 2009; UTARNG, 2007a.

3.7.2.7 Invertebrates

The 2009 site surveys documented four species of invertebrates (see Table 3-5). None of the species documented near the Proposed Action site are federal- or state-listed species of concern or receiving special management (see Table 3-7).

3.7.2.8 Sensitive and Protected Species

The majority of Utah's state-listed sensitive species are native to grassland and shrubland habitats found in the intermountain valleys and foothills. This habitat type is prevalent on Camp Williams and the Proposed Action site. According to publicly available documents, 37 federal- and state-listed species have the potential to occur within Salt Lake and Utah Counties (see Table 3-7). Of the 41 listed species, only 6 are currently listed as federally threatened, endangered, or species of concern candidate species. The Ute ladies'-tresses (*Spiranthes diluvialis*), desert milkvetch (*Astragalus deserticus*), yellow-billed cuckoo (*Coccyzus americanus*), and brown (grizzly) bears (*Ursus arctos horribilis*) are federally listed as threatened; the June sucker (*Chasmistes liorus*) and clay phacelia (*Phacelia argillacea*) are federally listed as endangered (USFWS, 2009). The remaining species are state-listed species of concern or have special management under a Conservation Agreement to preclude the need for federal listing, as determined under Utah Administrative Code R657-48, Wildlife Species of Concern and Habitat

1 Designation Advisory Committee. These species include 13 bird species, 7 mammals, 2
2 amphibians, 1 reptile, 6 fish, and 6 invertebrates (UDWR, 2009a; UDWR, 2009b).

3 Threatened, endangered, or sensitive species have been observed as present on Camp Williams
4 and near to the Proposed Action site. The American white pelican (*Pelecanus erythrorhynchos*)
5 (state-listed wildlife species of concern), has been occasionally observed flying above the Jordan
6 River, most likely traveling between the Great Salt Lake and Utah Lake (UTARNG, 2007a). The
7 western burrowing owl (*Athene cunicularia*) has been recorded on or adjacent to Camp Williams;
8 specifically, nesting western burrowing owls have been observed on the adjacent NSA property
9 west of Redwood Road. One short-eared owl (*Asio flammeus*) was observed on Camp Williams
10 during the summer of 1999, and nesting short-eared owls have been observed on the adjacent
11 NSA property west of Redwood Road. Despite annual surveys, no short-eared owls have been
12 identified on Camp Williams since, even though viable habitat for the short-eared owl occurs on
13 the eastern and southern perimeters of the installation (UTARNG, 2007a). The Ferruginous
14 hawk (*Buteo regalis*) has also been observed within the Camp Williams installation.

15 Camp Williams falls within the historic range of two sagebrush-obligate species, the pygmy
16 rabbit (*Brachylagus idahoensis*) and greater sage-grouse, which are both listed on the Utah
17 Sensitive Species List as Wildlife Species of Concern. The pygmy rabbit has also been proposed
18 as a federal candidate species. Approximately 35.2 percent of the Proposed Action site is
19 considered high- to moderate-potential pygmy rabbit habitat based on soil classification by the
20 NRCS due to the presence of slopes greater than 25 percent; soft, diggable soils; and sagebrush
21 greater than 70 centimeters in height. The closest known occurrence of pygmy rabbits to Camp
22 Williams since 1983 occurred on the western shore of the Great Salt Lake in southern Box Elder
23 County, a straight-line distance of at least 60 miles (UTARNG, 2007a), and the species has not
24 been documented on the installation since the inception of faunal surveys at Camp Williams in
25 1992. According to the Utah Natural Heritage Program, the greater sage-grouse is a year-round
26 resident with a spotty distribution in both Salt Lake and Utah Counties. A faunal survey within
27 the Camp Williams installation conducted from June 1993 through July 1994 identified greater
28 sage grouse (Wolfe and Reynolds, 1996), but they have not been documented since this time.

29 The Columbia spotted frog was historically (prior to 1983) documented on or adjacent to Camp
30 Williams (Utah Department of Natural Resources [DNR], 2003); however, the Columbia spotted
31 frog has not been documented since 1983.

32 Bald and golden eagles, although not Federal- or state-listed in Utah as threatened or
33 endangered, are protected under the *Bald and Golden Eagle Protection Act*, which prohibits the
34 "take" of bald or golden eagles in the United States. The Act defines "take" as "pursue, shoot,
35 shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." For purposes of these
36 guidelines, "disturb" means "to agitate or bother a bald or golden eagle to a degree that causes,
37 or is likely to cause, based on the best scientific information available (1) injury to an eagle;
38 (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or
39 sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding,
40 feeding, or sheltering behavior." In addition to immediate impacts, this definition also covers
41 impacts that result from human-induced alterations initiated around a previously used nest site
42 during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or
43 bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or
44 sheltering habits, and causes injury, death, or nest abandonment (USFWS, 2012). Typically,
45 golden eagles are found in open country, especially in mountainous regions, and feed primarily

1 on small mammals, especially rabbits, marmots, and ground squirrels. Nesting occurs from late
2 February to early March in Utah.

3 Bald eagles (*Haliaeetus leucocephalus*) have been observed irregularly by environmental resources
4 management staff and civilian observers on the installation and roosting in trees on the NSA
5 property east of Redwood Road.

6 As of 2007, four golden eagle nests have been documented on Camp Williams. Golden eagle
7 nests are located near the windmills north of the Lower Garrison development area. Camp
8 Williams has been part of a Utah DNR, UDWR Golden Eagle Nesting Survey since 1995. This
9 study indicated that eagle populations are tied to their largest prey base, which includes
10 jackrabbits (*Lepus spp.*) (59 percent of diet) and cottontail rabbits (*Sylvilagus spp.*) (9 percent of
11 diet). A key threat to this prey base is the loss of sagebrush habitat as a result of development,
12 or the conversion of sagebrush habitat to vegetation that does not support rabbit populations
13 (UTARNG, 2007a).

14 An updated U.S. Fish and Wildlife Service IPaC Trust Resource Report for the Proposed Action
15 site is included in Appendix E.

16 3.8 Cultural Resources

17 3.8.1 Definition of the Resource

18 Cultural resources are finite locations of human activity, occupation, or use identifiable through
19 field inventory (survey), historical documentation, or oral evidence. The term includes
20 archaeological, historic, or architectural sites, structures, or places with important public and
21 scientific uses, and may include definite locations (sites or places) of traditional, cultural, or
22 religious importance to specified social and/or cultural groups. Cultural resources are
23 nonrenewable, concrete, material places and things that are located, classified, ranked, and
24 managed through the system of identifying, protecting, and using for public benefit. The four
25 NRHP criteria are the following:

- 26 • **Criterion A:** Associated with events that have made a significant contribution to the broad
27 patterns of American history
- 28 • **Criterion B:** Associated with the lives of person signification in American past
- 29 • **Criterion C:** Embody distinctive characteristics of a type, period, or method of
30 construction, or that represent the work of a master, or that possess high artistic values,
31 or that represent a significant and distinguishable entity whose components may lack
32 individual distinction
- 33 • **Criterion D:** Yielded, or may be likely to yield, information important in prehistory or
34 history.

35 Typically, cultural resources are subdivided into archaeological resources (prehistoric or
36 historic sites where human activity has left physical evidence of that activity but no
37 aboveground structures remain standing) or architectural resources (buildings or other
38 structures or groups of structures that are of historic or aesthetic significance). Archaeological
39 resources comprise areas where human activity has measurably altered the earth or intact
40 deposits of physical remains are found (i.e., prehistoric or historic habitation remains).

1 Archaeological resources can also include submerged resources, including resources that are
2 submerged as a result of wreck or intentional submersion (e.g., shipwrecks), resources
3 submerged as a result of reservoir construction, or resources that have become submerged
4 through sea level rise.

5 Architectural resources include standing buildings, bridges, dams, and other structures of
6 historic or aesthetic significance. Generally, architectural resources must be more than 50 years
7 old to be considered potentially eligible for nomination to the NRHP, as stated in National
8 Register Bulletin 15. More recent structures, such as Cold War-era resources, might warrant
9 protection if they are associated with exceptionally significant events or persons, represent
10 remains that are so fragile that examples of any kind are extremely rare, or have the potential to
11 gain significance in the future, as stated in National Register Bulletin 22.

12 Traditional Cultural Properties or sacred sites can include archaeological resources, structures,
13 neighborhoods, prominent topographic features, habitats, or areas where particular plants,
14 animals, or minerals exist that Native Americans or other cultural groups consider to be
15 essential for the preservation of traditional cultural practices, as stated in National Register
16 Bulletin 38.

17 To identify cultural resources that could be potentially affected by the Proposed Action, the area
18 within which archaeological, architectural, and Native American resources would have the
19 potential to be affected must be determined. As defined by 36 CFR 800.16(d) of Section 106 of
20 the National Historic Preservation Act, the area of potential effect represents the "...geographic
21 area or areas within which an undertaking could cause changes in the character or use of
22 historic properties, if any such exists." In delineating the area of potential effect, factors taken
23 into account include the elements of the Proposed Action; the existence of buildings, vegetation,
24 and terrain with respect to potential visual or audible impacts; and construction activities
25 necessary for the Proposed Action. The area of potential effect for archaeological resources for
26 the Proposed Action is the footprint of the Proposed Action site and any linear corridors
27 representing construction of infrastructure, such as roads and utilities. The area of potential
28 effect for architectural resources includes the view shed surrounding the development areas
29 and linear corridors.

30 **3.8.2 Description of the Affected Environment**

31 **3.8.2.1 Cultural Context**

32 The cultural resources in Camp Williams are identified in the Integrated Cultural Resource
33 Management Plan (UTARNG, 2008c). These resources include 137 archaeological sites,
34 sixty-three historic buildings and structures, and no traditional cultural properties or sacred
35 sites. Cultural resources in or immediately adjacent to the Proposed Action site include five
36 archaeological sites and no historic buildings or structures.

37 The prehistoric and historic occupations of Camp Williams are defined according to Madsen's
38 (1982) outline for the eastern Great Basin. The prehistoric context consists of the Paleoindian
39 (12,000 to 9000 B.P.), Early Archaic (8500 to 5500 B.P.), Middle Archaic (5500 to 3500 B.P.), Late
40 Archaic (3500 to 2000 B.P.), and Sevier/Fremont (1600 to 650 B.P.). Protohistoric and historic
41 Native American contexts are defined as Numic (750 B.P. to present) and Protohistoric Period
42 (1776 to 1847). The period following contact between Native Americans and Anglos is defined
43 as the Historic Period (1847 to present).

1 3.8.2.2 Archeological Resources

2 The Proposed Action site has been surveyed for cultural resources as reported on six occasions
 3 (see Table 3-8). As a result of these surveys, the Proposed Action site has been subject to
 4 pedestrian cultural resources inventories.

TABLE 3-8
 Cultural Resource Surveys

Year	Author	Report Title	Utah Project #
1990	Nielson, Asa	An Archaeological Inventory of a Section of the Camp Williams Military Base, Utah County, Utah	U-90-NP-0219
2003	Baxter, Jon	Cultural Resource Inventory of Garrison Fence Project	U-03-BS-0453
2006	Baxter, Jon	A Cultural Resource Inventory of the South Garrison Project Area at Camp W.G. Williams, Utah County, Utah	U-06-HO-0116
2006	Stokes, Wendy, Amber Tews, Ellen Nelson, and Sheri Ellis	An Archaeological and Architectural Assessment for the Proposed SR-68 Project, Bangerter Highway Through Saratoga Springs, Salt Lake and Utah Counties, Utah	U-06-ST-1079
2007	Baxter, Jon and Aaron Jordan	A Cultural Resources Inventory of the Army Garrison Area on Camp W.G. Williams	U-07-HO-0055
2013	Nelson, Shaun	A Cultural Resources Inventory for the Jordan Valley Water Pipeline Through Camp Williams, Salt Lake and Utah Counties, Utah	U-13-UV-0007

5 These surveys identified 14 recorded archaeological sites within or immediately adjacent to the
 6 Proposed Action site. Of these 14 sites, four are considered eligible for listing on the NRHP, are
 7 considered historic properties, and are discussed individually below (42UT141, 42UT946,
 8 42UT947 and 42UT1757). The remaining 10 archaeological sites (42UT137, 42UT138, 42UT139,
 9 42UT140, 42UT703, 42UT704, 42UT705, 42UT706, 42UT1497 and 42UT1556) include prehistoric
 10 and historic artifact scatters as well as historic irrigation ditches, and have been determined not
 11 eligible for listing on the NRHP. Because they are not eligible for listing on the NRHP, they will
 12 not be discussed further and would not be affected by this project.

13 Site 42UT141, originally reported in 1961 and revisited in 2007, consists of a large scatter of
 14 lithics, fire-cracked rock and ground stone. The site was determined eligible for listing on the
 15 NRHP.

16 Site 42UT946 is the historical Utah Lake Distributing Canal, or the Farm Canal as called by
 17 UTARNG, which is an irrigation ditch that diverts water from Utah Lake to agricultural fields
 18 in the Salt Lake valley. A segment of the canal was first recorded in 1994 and a previously
 19 unrecorded segment in Camp Williams was recorded in 2007 (Baxter and Jordan, 2007). The
 20 canal is still in use and has been maintained and modified over time. Site 42UT946 has been
 21 determined eligible for the NRHP under Criterion A.

1 Site 42UT947 is the historical Provo Reservoir Canal, or Jacob's Canal as called by UTARNG.
2 The segment in the Lower Garrison was recorded in 2007 (Baxter and Jordan, 2007). The canal,
3 which is still in use, diverts water from Provo Reservoir into the Salt Lake Valley. Over time, the
4 canal has been modified. Site 42UT947 was determined eligible for the NRHP under Criterion
5 A.

6 Site 42UT1757 is a segment of the historic Salt Lake & Utah Railroad which was constructed
7 between 1912 and 1913. The railroad grade is eligible for listing on the NRHP under Criterion A
8 and B.

9 The UTARNG consulted with the Utah State Historic Preservation Office (UT SHPO) regarding
10 the undertaking and its effects as outlined in Section 106 of the National Historic Preservation
11 Act of 1966, as amended, and its implementing regulation, 36 CFR Part 800. The UTARNG
12 determined that the proposed action would result in a finding of No Historic Properties
13 Affected for all 10 of the ineligible archaeological sites.

14 The Lower Garrison Development Master Plan calls for a protective buffer around Site
15 42UT141. Given that no development or associated activity will occur in the area, the UTARNG
16 determined that the proposed action will result in a finding of No Historic Properties Affected
17 for Site 42UT141.

18 The UTARNG recently executed a memorandum of agreement with the UT SHPO to enclose
19 both canal segments (42UT946 and 42UT947) located in the vicinity of the proposed action.
20 While the canal segment will remain eligible under Criterion A, future development of the
21 Lower Garrison area will not impact any features of the canal which contribute to either site's
22 eligibility. This project will result in a finding of No Adverse Effect for Sites 42UT946 and
23 42UT947.

24 Given that Site 42UT1757 is eligible for listing on the NRHP under Criteria A and B, future
25 development in the area will not affect any intact elements of the site which contribute to its
26 eligibility. Accordingly, the proposed action will result in a finding of No Adverse Effect for Site
27 42UT1757.

28
29 The UTARNG determined the overall Finding of Effect for the proposed action is No Adverse
30 Effect. The UTARNG documented this determination in a letter to the UT SHPO dated January
31 28, 2014. The UT SHPO concurred with the Finding of Effect in a letter dated February 13, 2014
32 (see Appendix C).
33

34 3.8.2.3 Native American Consultation

35 On 27 October 1999, the DoD promulgated its annotated American Indian and Alaska Native
36 Policy, which emphasizes the importance of respecting and consulting with tribal governments
37 on a government-to-government basis. The policy requires an assessment, through consultation,
38 of the effect of proposed DoD actions that may have the potential to impact protected American
39 Indian tribal resources, American Indian tribal rights, and American Indian lands before
40 decisions are made by the services. DoDI 4710.02, DoD Interactions with Federally Recognized
41 Tribes, provides additional guidance for this policy. The UTARNG contacted federally
42 recognized Tribes within the State in accordance with DoDI 4710.02 (see Appendix D). The
43 UTARNG cultural resources manager discussed the project during the joint annual UTARNG,

1 U.S. Army Dugway Proving Ground and Hill Air Force Base American Indian Meeting in
2 August of 2013. UTARNG sent scoping letters to the Native American tribes in January 2014.
3 The UTARNG followed up with project notification letters drafted by the Cultural Resource
4 Manager and dated February 6, 2014, which contained detailed information regarding the
5 cultural resources in the area. No comments regarding the proposed action were received in
6 response to the meeting or either of the notification letters (see Tribal MFR in Appendix D).

7 3.8.2.4 Paleontological Resources

8 The Proposed Action site is considered to have a low potential for yielding significant
9 paleontological resources (UTARNG, 2008c).

10 3.9 Socioeconomics

11 3.9.1 Definition of the Resource

12 Socioeconomic resources are defined as the basic attributes associated with the human
13 environment, particularly population and economic activity. Population is described as the
14 magnitude, characteristics, and distribution of people. Economic activity is described in terms
15 of employment distribution, personal income, and business growth.

16 3.9.1.1 Public and Occupational Health and Safety

17 Workers' and public health and safety during facility construction along with subsequent
18 operation of facilities are of critical importance and must be addressed during the NEPA
19 process. Various DoD and Army regulations (including AR 385-10, the Army Safety Program,
20 and AR 40-5, Preventative Medicine) have been put in place to comply with EPA and OSHA
21 requirements.

22 3.9.1.2 Protection of Children

23 EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, was
24 introduced in 1997 to prioritize the identification and assessment of environmental health risks
25 and safety risks that may affect children and to ensure that federal agency policies, programs,
26 activities, and standards address environmental risks and safety risks to children. These risks
27 are defined as "risks to health or to safety that are attributable to products or substances that the
28 child is likely to come in contact with or ingest." Evaluating the potentially disproportionate
29 risks to children that result from environmental health risks or safety risks during the
30 NEPA process satisfies the requirements of EO 13045.

31 3.9.2 Description of the Affected Environment

32 Camp Williams is a valuable economic asset to the region, employing over 2,300 people, and
33 27 percent of the total positions within the UTARNG (EFT Architects, 2012a). The economic
34 impact of Camp Williams on the local economy is summarized in the Camp Williams LRMP
35 (EFT Architects, 2012a):

36 Camp Williams is an important economic engine contributing to the regional economy
37 through sustained direct employment, indirect spending and construction. The presence
38 of the Camp provides a stable jobs base to the region. From 2008 to 2009, the Utah Army
39 National Guard supplied nearly 260 full time jobs and issued a total payroll of nearly \$11.8
40 million in the cities of Lehi and Riverton. Due to the fact that all military and civilian

1 employees reside off-Base, this income is directly integrated into the local economies. In
 2 addition, the installation itself is an important asset to the civilian community as it is used
 3 by local law enforcement for training, local youth groups for team-building retreats and
 4 the public for a variety of special events.

5 Table 3-9 summarizes data from the United States Census Bureau’s (USCB’s) 2010 database on
 6 industries in the area surrounding Camp Williams, as well as Salt Lake County, Utah County,
 7 and the state of Utah for comparison. For socioeconomic reference, the area surrounding
 8 Camp Williams may be referred to as the Region of Influence, or ROI and may be defined as the
 9 average between the 2010 Census Tracts 1131.05 and 1151.06 of Salt Lake County and 101.05,
 10 101.08, and 101.09 of Utah County. The primary industry (18.3 percent of the working
 11 population) in the ROI is educational services and healthcare and social assistance followed by
 12 14.2 percent in professional, scientific, and management, and administrative and waste
 13 management services. The construction industry accounts for 9.0 percent of the population.

TABLE 3-9
 Employment by Industry for ROI and Surrounding Areas

	ROI	Salt Lake County	Utah County	State of Utah
Total employed population	12,811	507,129	223,395	1,265,221
Agriculture, forestry, fishing and hunting, and mining	3.3 percent ¹	0.9 percent	1.3 percent	2.1 percent
Construction	9.0 percent ¹	6.8 percent	6.8 percent	6.9 percent
Manufacturing	11.3 percent ¹	10.7 percent	9.9 percent	10.7 percent
Wholesale trade	2.5 percent ¹	3.1 percent	2.6 percent	2.6 percent
Retail trade	10.7 percent ¹	12.0 percent	12.7 percent	12.3 percent
Transportation and warehousing, and utilities	3.3 percent ¹	5.6 percent	2.6 percent	4.8 percent
Information	2.4 percent ¹	2.7 percent	2.5 percent	2.2 percent
Finance and insurance, and real estate and rental and leasing	9.6 percent ¹	8.7 percent	5.3 percent	6.7 percent
Professional, scientific, and management, and administrative and waste management services	14.2 percent ¹	12.5 percent	13.3 percent	11.2 percent
Educational services, and health care and social assistance	18.3 percent ¹	19.9 percent	27.0 percent	21.6 percent
Arts, entertainment, and recreation, and accommodation and food services	6.5 percent ¹	8.4 percent	7.8 percent	8.8 percent
Other services, except public administration	5.5 percent ¹	4.8 percent	4.8 percent	4.6 percent
Public administration	3.5 percent ¹	4.1 percent	3.4 percent	5.5 percent

1 **Note:**
 2 ¹Percentage value has been averaged between 2010 Census Tracts 1131.05 and 1151.06 of Salt Lake County and
 3 101.05, 101.08, and 101.09 of Utah County.
 4 **Source:** USCB, 2010.

5 Socioeconomic resources are defined as the basic attributes associated with the human
 6 environment, particularly population and economic activity. Population is described as the
 7 magnitude, characteristics, and distribution of people. Economic activity is described in terms
 8 of employment distribution, personal income, and business growth.

9 **3.9.2.1 Public and Occupational Health and Safety**

10 Camp Williams is operated as a secure installation with controlled access and is entirely fenced
 11 and patrolled. The general public is not allowed access.

12 A health and safety program has been put in place at Camp Williams and is outlined in the
 13 Emergency Response/Disaster Relief Plan (2012). Should any number of emergency incidents
 14 take place (fire, severe weather, power loss, and medical emergency) the plan standardizes
 15 operational policies, procedures, and requirements for the Utah Training Center Staff and
 16 authorized users.

17 Emergency services are coordinated with the Commanding Officer. The Commanding Officer is
 18 the Utah Training Center’s Incident Commander while the Range Control Operations/Fire
 19 Desk is the hub of operations for emergency response. All reports and updates must be
 20 channeled through the Fire Desk.

21 Project-specific work plans are developed to address the potential presence of hazardous and
 22 toxic waste materials that could be encountered during implementation of a given project.
 23 These work plans address the proper handling and disposal of the materials, should any be
 24 encountered

25 The nearest major hospital is Riverton Hospital located approximately 11 miles from the Main
 26 Gate of Camp Williams (Google Earth, 2009b).

27 **3.9.2.2 Protection of Children**

28 Table 3-10 provides population data for individuals under the age of 19 in the ROI and
 29 surrounding areas. No children reside on Camp Williams. The ROI has higher percentages of
 30 very young children (under the age of 5 and ages 5 to 9) compared to the reference population.
 31 The percentages of older children (ages 10 to 14) are slightly higher than the reference
 32 population, but the number of much older children (ages 15 to 19) is lower in the ROI than the
 33 reference population.

TABLE 3-10
 Population Demographics for ROI and Surrounding Areas

	ROI	Salt Lake County	Utah County	State of Utah
Total Population	32,921	1,032,226	516,571	2,766,233
Under 5 years	17.1 percent ¹	8.7 percent	11.1 percent	9.4 percent
5 to 9 years	14.3 percent ¹	8.3 percent	10.0 percent	8.9 percent

TABLE 3-10
Population Demographics for ROI and Surrounding Areas

	ROI	Salt Lake County	Utah County	State of Utah
10 to 14 years	10.6 percent ¹	7.6 percent	9.0 percent	8.3 percent
15 to 19 years	5.8 percent ¹	7.2 percent	9.3 percent	7.9 percent
Population Age 0 to 19	47.8 percent ¹	31.8 percent	39.4 percent	34.5 percent

Note:

¹Percentage value has been averaged between 2010 Census Tracts 1131.05 and 1151.06 of Salt Lake County and 101.05, 101.08, and 101.09 of Utah County.

Source: USCB, 2010.

3.10 Environmental Justice

3.10.1 Definition of the Resource

On February 11, 1994, President Clinton issued EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-income Populations*. The purpose of the EO is to avoid the disproportionate placement of adverse environmental, economic, social, or health effects from Federal Proposed Actions and policies on minority and low-income populations. The first step in analyzing this issue is to identify minority and low-income populations that might be affected by implementation of the Proposed Action or its considered alternatives. Demographic information on ethnicity, race, and economic status is provided in this section as the baseline against which potential Environmental Justice effects can be identified and analyzed.

The 1995 DoD document titled, “DoD Strategy on Environmental Justice” contains an implementation plan describing how to address and incorporate EO 12898. The document specifically identifies NEPA as the primary mechanism in which to address the provisions laid forth under the order.

3.10.2 Description of the Affected Environment

Persons and organizations known or thought to have a potential interest, including minority, low-income, disadvantaged, and Native American groups, have been identified, informed, and given the opportunity to participate in Camp William’s LRMP (EFT Architects, 2012a) and in this EA process.

These groups, along with the nearby general population, comprise the ROI for Environmental Justice analysis. Specifically, the ROI is defined using the census tracts surrounding Camp Williams. For purposes of comparison, reference area populations are defined as the surrounding areas including Salt Lake County, Utah County, and the state of Utah. “Disproportionate” impacts are defined as affecting a meaningfully greater population, which is considered approximately 20 percentage points higher than the reference population.

Based on the 2010 Census, Tracts 1131.05 and 1151.06 of Salt Lake County and 101.05, 101.08, and 101.09 of Utah County surround Camp Williams and represent the ROI. Table 3-11 provides population demographics and poverty levels for the ROI and surrounding areas as well as poverty levels.

TABLE 3-11
Population Demographics and Poverty Levels for ROI and Surrounding Areas

	ROI	Salt Lake County	Utah County	State of Utah
Total Population	32,921	1,032,226	516,571	2,766,233
White alone	94.6 percent ¹	86.0 percent	91.3 percent	89.1 percent
Black or African American	1.6 percent ¹	1.6 percent	1.1 percent	0.6 percent
American Indian and Alaska Native	0.3 percent ¹	0.8 percent	0.6 percent	1.1 percent
Asian	1.8 percent ¹	3.3 percent	1.4 percent	2.0 percent
Native Hawaiian and Other Pacific Islander	0.9 percent ¹	1.6 percent	0.8 percent	0.9 percent
Other Race	4.2 percent ¹	4.2 percent	2.9 percent	3.4 percent
Hispanic or Latino ²	7.6 percent ¹	17.1 percent	10.7 percent	12.9 percent
Percentage of population below poverty level	6.1 percent ¹	12.0 percent	13.6 percent	12.1 percent

Notes:

¹ Percentage value has been averaged between 2010 Census Tracts 1131.05 and 1151.06 of Salt Lake County and 101.05, 101.08, and 101.09 of Utah County.

² Hispanic origin, could be of any race.

Source: USCB, 2010.

3.11 Infrastructure

3.11.1 Definition of the Resource

Infrastructure consists of physical, human-made systems and structures that enable a population in a specified area to function. The extent to which an area is considered developed or undeveloped is largely based on the types and extent of infrastructure that is in place to serve the area. Infrastructure typically includes water systems, wastewater systems, stormwater systems, solid waste management, energy distribution systems, traffic and circulation, and transportation systems.

3.11.2 Description of the Affected Environment

3.11.2.1 Water System

Drinking water for Camp Williams is supported through their own water supply system, which consists of the Hidden Valley Springs Numbers 1 through 7, Well #1, Well #2, and Beef Hollow Spring (UTARNG, 2008a). The Hidden Valley Springs Numbers 1 through 6 are adjacent to and east of the Jordan River. The Hidden Valley Springs Number 7 is immediately west of the Jordan River and Hidden Valley Springs Numbers 1 through 6. These springs produce approximately 550 gpm, half of the Camp Williams water domestic consumption rate. The recharge zone for the Hidden Valley Springs Numbers 1 through 6 extends east toward the Traverse Mountains. The recharge zone for the Hidden Valley Springs Number 7 is on the west side of the Jordan River and it extends into the Camp Williams Range Area. Beef Hollow Spring is found on the east-central portion of Camp Williams, and produces approximately 23 gpm.

1 The recharge zone for Beef Hollow Springs is within Camp Williams' property. Irrigation water
2 at Camp Williams is composed of either potable water or surface water that is pumped from the
3 Utah Lake Distribution Canal (UTARNG, 2008a).

4 Groundwater production wells (Wells #1 and #2), provide potable water to Camp Williams and
5 are located at the installation. Well #1 (formerly known as "Camp Williams Well") is located
6 east of the Camp Williams Cantonment Area and north of the Proposed Action site. Camp
7 Williams currently uses Well #1 as its primary drinking water supply source (UTARNG, 2008b).
8 Well #1 produces an estimated maximum yield of 500 gpm (UTARNG, 2000). The recharge
9 zone for Well #1 extends in a southeasterly direction from the eastern edge of the cantonment
10 area, through the Utah Highway Patrol driver's course (UTARNG, 2008b).

11 Well #2 is located west of the Camp Williams cantonment area within the Traverse Mountains.
12 Well #2 was developed in the Beef Hollow drainage and draws water from the Oquirrh
13 Quartzite geologic formation (UTARNG, 2008b). The recharge zone for Well #2 encompasses
14 the Beef Hollow drainage, upgradient from the well site (UTARNG, 2008b). The maximum
15 projected pumping rate for Well #2 is estimated at 300 gpm (UTARNG, 2008b).

16 In accordance with Utah DEQ, Division of Drinking Water regulations, the Hidden Valley
17 Springs and Wells #1 and #2 are permitted by the Division of Drinking Water as "Public Water
18 Supplies" (UTARNG, 2008b). Camp Williams uses guidelines developed in Drinking Water
19 Source Protection Plans to manage the potable water distribution network (UTARNG, 2008b).

20 3.11.2.2 Wastewater System

21 Camp Williams discharges all sanitary sewer waste to the publicly owned treatment works,
22 South Valley Water Reclamation Facility in West Jordan, Utah. Discharge includes limited
23 industrial wastewater discharges associated with various on-installation facilities. According to
24 the Integrated Contingency Plan (UTARNG, 2007b), floor drains associated with these facilities
25 are interconnected with subsurface oil/water separators, before gravity-drain discharge to the
26 sanitary sewer system beneath Camp Williams (UTARNG, 2008a). Most facilities at Camp
27 Williams discharge domestic sewage through the municipal sewer lines. However, some
28 training areas have portable or semi-permanent lavatory facilities, which contain 500-gallon,
29 gray water holding tanks, which are periodically emptied by local sanitation contractors
30 (UTARNG, 2008a).

31 3.11.2.3 Stormwater System

32 Stormwater at Camp Williams generally flows from west to east and is managed through an
33 existing stormwater system. Stormwater flows are flows collected by channelized stormwater
34 inlets covered with grates. The stormwater inlets flow toward a drainage ditch that lies north
35 and east of Camp Williams and drains to the nearby Welby-Jacob canal (UTARNG, 2008a).
36 However, there is one stormwater outfall that distributes stormwater collected from a portion of
37 Camp Williams broadly across the open ground so that it does not directly enter a receiving
38 stream (UTARNG, 2008a). Camp Williams has one general stormwater permit for UTARNG
39 operations at Camp Williams, which specifies compliance conditions for discharges and
40 monitoring conditions. The permit (Permit Number UTR000093) is issued pursuant the Utah
41 Pollutant Discharge Elimination System Program (UTARNG, 2008a).

1 3.11.2.4 Solid Waste Management

2 Municipal solid waste is managed through temporary storage in numerous metal waste bins
3 located throughout Camp Williams. Municipal and construction-related solid wastes are
4 disposed of off-installation in accordance with relevant state and Federal regulations
5 (UTARNG, 2008a).

6 3.11.2.5 Energy Distribution System

7 The main source of power is supplied to Camp Williams by Rocky Mountain Power.
8 Camp Williams has additional power supplied by two on-installation wind turbines located
9 north of the Proposed Action site. One primary electrical transmission line corridor extends
10 generally east of the cantonment area and along the west of the Proposed Action site through an
11 existing easement (UTARNG, 2008a). There are 23 electrical transformers found in the vicinity
12 of the cantonment area at Camp Williams. Current heating and cooling sources at Camp
13 Williams vary from natural gas to electrical with various forms of portable and permanent,
14 emergency generator, backup power sources including diesel, batteries, and propane
15 (UTARNG, 2008a). The Questar Gas Company provides natural gas at Camp Williams.

16 3.11.2.6 Traffic and Transportation

17 Primary access to Camp Williams is from SR 68 (Redwood Road) with two entrances. The
18 southern entrance is the main entrance and is accessed from the east side of SR 68. The northern
19 entrance is also accessed from the east side of SR 68 and is located approximately 700 feet away
20 from the southern entrance. The Proposed Action site largely consists of several unimproved
21 roads, with access to SR 68, as well as 10400 North Street.

22 3.12 Hazardous and Toxic Materials/Wastes

23 3.12.1 Definition of the Resource

24 Hazardous and toxic materials refers to any item or agent (biological, chemical, or physical) that
25 has the potential to cause harm to humans, animals, or the environment, either by itself or
26 through interaction with other factors. Hazardous and toxic wastes are hazardous and toxic
27 materials that have been used and are no longer needed. Hazardous and toxic substances have
28 hazardous physical and chemical properties and/or have high toxicity.

29 Issues associated with hazardous materials typically center around waste streams, underground
30 storage tanks, aboveground storage tanks, and the storage, transport, use, and disposal of
31 pesticides, fuels, lubricants, and other industrial substances. When such materials are
32 improperly used, they can threaten the health and wellbeing of wildlife species, habitats, soil
33 and water systems, and humans. Other special hazards typically include asbestos-containing
34 material (ACM), lead-based paint (LBP), and radon. The Indoor Radon Abatement Act of 1988
35 established a long-term goal that indoor air be as free from radon as the ambient air outside
36 buildings. In general, elevated indoor radon gas concentrations may present public health
37 concerns.

1 **3.12.2 Description of the Affected Environment**

2 **3.12.2.1 Storage Tanks**

3 No aboveground or documented underground storage tanks are located at the Proposed Action
4 site.

5 **3.12.2.2 Military Munitions Response Program**

6 The Southeast Simulated Attack Area Munitions Response Site (MRS) is a Military Munitions
7 Response Program site located east of the Proposed Action site along the Jordan River on
8 private land. The Southeast Simulated Attack Area was previously used for staging crossing
9 operations across the Jordan River while under simulated enemy fire. A site inspection,
10 magnetometer survey, and soil sampling were performed at the site in 2007. The results
11 indicated there is no evidence that the soil and groundwater in the Southeast Simulated Attack
12 Area MRS have been impacted by munitions constituents. Reportedly, based on the types of
13 activities performed at the MRS, buried munitions of explosive concern (MEC) is not expected
14 (UTARNG, 2008a).

15 **3.12.2.3 Radon**

16 Reportedly, the UTARNG has no known documentation regarding any historical surveys or
17 investigations regarding radon levels at Camp Williams (UTARNG, 2008a). Review of the
18 Radon Hazard Potential Map of Utah (UGS, 1993) indicates the Proposed Action site falls
19 within areas of moderate to high radon potential. Review of the EPA Map of Radon Zones maps
20 the State of Utah as Zone 2, which typically exhibits indoor average radon levels between
21 greater than or equal to 2 picoCuries per liter of water and less than or equal to 4 picoCuries
22 per liter.

4.0 Environmental Consequences

4.1 Effects of Alternatives on Resource Areas

This section presents the direct, indirect, and cumulative effects of the Proposed Action and the No Action Alternative on each environmental resource area. Beneficial and adverse impacts are described. Project-specific mitigation measures are identified, as needed, to lower potentially significant adverse impacts associated with implementing the Proposed Action. Applicable best management practices (BMPs) are also identified as standard business practices to reduce less-than-significant impacts. These BMPs are not necessarily project-specific, but are environmental protection measures that the UTARNG routinely implements.

4.2 Land Use

The evaluation of impacts on land use is based on the degree of land use sensitivity in areas affected by a Proposed Action and compatibility of Proposed Actions with existing conditions. Land use can remain compatible, become compatible, or become incompatible. UTARNG measured projected compatibility issues both qualitatively and quantitatively and assessed effects on land use by evaluating the following:

- Consistency and compliance with existing land use plans, zoning, or policies
- Alteration of the viability of existing land use
- The degree to which the Proposed Action preclude continued use or occupation of an area
- The degree to which the Proposed Action conflicts with planning criteria established to ensure the safety and protection of human life and property
- Potential noise changes conflicting with sensitive land uses
- Potential impacts on sensitive view sheds

4.2.1 Effects of the Proposed Action

Short- to long-term, minor adverse impacts on land use would be expected as a result of the Proposed Action due to both construction and operation activities. Approximately 18 acres of the 57-acre Proposed Action site would be permanently converted to impervious surfaces from the construction of the facilities, training areas, parking areas, and utilities.

The location of the Proposed Action site is east of the cantonment area and more centrally located to services of the installation and could provide easier access for personnel. However, because the Proposed Action site is directly adjacent to the boundary of Camp Williams, potential future encroachment could be an issue. However, this would be mitigated by implementing appropriate setback criteria and screening in site design.

1 Potential minor long-term impacts could be expected from the appearance of new buildings.
2 The proposed facilities and infrastructure could be visible from residential and commercial
3 locations off-installation to the east. However, the facilities would not affect any sensitive
4 view shed.

5 **4.2.2 Effects of the No Action Alternative**

6 Under the No Action Alternative, the Proposed Action site and all included facilities would not
7 be constructed at Camp Williams. There would be no effects on land uses on Camp Williams as
8 a result of the No Action Alternative.

9 **4.2.3 Best Management Practices**

10 BMPs are standard environmental protection measures that the ARNG routinely implements as
11 part of their “standard business practices” for new or existing activities, as applicable and
12 appropriate. Implementing appropriate setback criteria and screening in site design would
13 reduce potential minor long-term impacts on the potential encroachment associated with Lehi
14 City. These measures could help offset impacts associated with the potential increase in activity
15 and traffic generation due to the Proposed Action.

16 **4.2.4 Mitigation Measures**

17 Mitigation measures are project specific, unique requirements designed and implemented to
18 lower potentially significant adverse impacts. No mitigation measures will be necessary to
19 reduce any adverse environmental impacts to below significant levels.

20 **4.3 Air Quality**

21 **4.3.1 Effects of the Proposed Action**

22 UTARNG evaluated potential air quality impacts associated with the Proposed Action based on
23 whether potential emissions are localized and temporary and whether a reasonable potential
24 exists for a violation of an air quality standard or regulatory threshold.

25 Implementation of the Proposed Action would result in short-term and minor impacts on
26 overall air quality from construction. The operation of heavy construction equipment would
27 increase exhaust emissions and would generate dust and other construction-related particles in
28 the air during the construction phase. Emissions from construction vehicles would be
29 minimized by requirements in the construction specifications that the contractor keep
30 equipment properly maintained and operating. Construction dust and particles would be
31 reduced by implementation of fugitive dust control measures. These measures, as stated in the
32 UTARNG Fugitive Dust Control Plan (UTARNG, 2003), include the application of water to
33 exposed ground, limitations on high wind operations, and providing temporary wind breaks.
34 Construction activities are not expected to result in emissions that would violate applicable air
35 quality control regulations.

36 Operation of the proposed facilities would introduce additional emissions associated with
37 building operations such as heating, ventilation, and air conditioning systems. Because the
38 location of Camp Williams falls in a nonattainment area, a notice of intent to install new sources
39 of air pollution would be submitted to the Utah Division of Air Quality and a determination
40 made as to whether an Air Approval Order regulating these activities is required.

1 Mobile source emissions would be generated from the addition of 51 privately owned vehicles
 2 daily, and an additional 623 reservist vehicles on up to two weekends per month at Camp
 3 Williams under the Proposed Action. Based on that analysis, impacts from new mobile sources
 4 would also be minor. Additional vehicle trips could result from visitors, mail service, and
 5 vendors, but these emissions have not been quantified for the purposes of this EA.

6 **4.3.1.1 Clean Air Act Criteria Pollutants**

7 UTARNG analyzed the total emissions associated with the Proposed Action to provide a
 8 conservative estimate of the potential impacts to air quality. Table 4-1 summarizes the projected
 9 total air emissions from stationary sources, construction equipment, and vehicles. The projected
 10 emissions have been estimated using typical equipment selection for similar construction.
 11 Actual specifications of fuel usages, construction equipment, and vehicle mileage have been
 12 estimated based on other similar projects. The calculations used to develop these estimates are
 13 provided in Appendix F.

TABLE 4-1
 Summary of Proposed Action Emissions

Activities	Annual Emissions (tons per year)						
	SO ₂	NO _x	CO	PM ₁₀	PM _{2.5}	VOC	HAPs
Operational Sources							
Stationary Sources	0.030	6.0	4.8	0.42	0.42	0.36	0.10
Mobile Sources	0.022	2.8	43.0	0.09	0.06	1.92	0.10
Operational Sources Total	0.052	8.8	47.9	0.51	0.48	2.28	0.20
Construction Sources							
Construction Sources Total	0.14	3.14	18.7	2.57	0.65	0.85	0.074
PSD Thresholds	250	N/A	250	250	N/A	N/A	N/A
Non-attainment NSR Thresholds	N/A	100	N/A	N/A	100	50	N/A
General Conformity <i>de minimis</i> Thresholds	100	100	100	100	100	50	N/A
GHG Emissions							
Activities	CO ₂ (CO ₂ e)	CH ₄ (CO ₂ e)	N ₂ O (CO ₂ e)				
Operational Sources	6,340	10.0	39.0				
Construction Sources	562	3.1	15.7				

14 **Notes:**
 15 Mobile emissions: 51 new privately owned vehicles and 161 government-owned vehicles are anticipated as a result of
 16 the Proposed Action.
 17 Calculation of construction emissions includes mobile sources only because there are no stationary sources under
 18 the construction scenario.

19 Based on the estimated emissions in Table 4-1, the Proposed Action would result in long-term,
 20 minor impacts to air quality because the estimated emissions from the Proposed Action are well
 21 below regulatory thresholds. This applies in all cases, and most significantly to the *de minimis*
 22 levels established under the General Conformity Rule. The Proposed Action is located in a

1 nonattainment area for PM_{2.5} standards, and in discussion with neighboring Salt Lake County
2 for site integration (which is a nonattainment area for ozone [precursors VOC and NO_x]).
3 Nonattainment status of any NAAQS directly implies the existence of a corresponding active
4 State Implementation Plan and the need for a conformity determination. However, evaluations
5 of potential changes, in direct and indirect air emissions due to the Proposed Action indicate it
6 would not cause an exceedance of the *de minimis* levels set forth under conformity (see
7 Table 4-1). Therefore, the Proposed Action has minimal air quality impact, and is determined
8 to conform.

9 Appendix G contains a General Conformity Record of Nonapplicability for the Proposed
10 Action. This document, along with detailed emission estimates, provide formal documentation
11 of the determination to conform.

12 4.3.1.2 Greenhouse Gases

13 The Proposed Action would not have a significant impact on GHG emissions because the
14 construction and operation activities due to the Proposed Action are not expected to cause
15 direct emissions of 25,000 metric tons CO₂e or more per year, which is the proposed CEQ
16 screening level for including a quantitative and qualitative assessment of GHG emissions in the
17 NEPA analysis (CEQ, 2010). Implementation of the Proposed Action would cause long-term,
18 minor adverse cumulative effects to air quality. These effects would not be significant
19 cumulative effects because the relatively small scope of this project, when combined with other
20 proposed projects in the area, would not increase air pollutants to levels that exceed regulatory
21 thresholds.

22 4.3.2 Effects of the No Action Alternative

23 Implementation of the No Action Alternative would not result in a change in current
24 conditions, and therefore, no impacts to air quality would occur.

25 4.3.3 Best Management Practices

26 Construction vehicle emissions would be minimized through contractual requirements of the
27 contractor to implement routine maintenance of vehicles. Construction dust and particles
28 would be reduced through the implementation of fugitive dust control measures, such as the
29 application of water to exposed ground.

30 4.3.4 Mitigation Measures

31 No mitigation measures will be necessary to reduce any adverse environmental impacts to
32 below significant levels.

33 4.4 Noise

34 4.4.1 Effects of the Proposed Action

35 Minor, short-term adverse impacts on noise from construction activities would be likely from
36 implementation of the Proposed Action. The Proposed Action site is located within the Camp
37 Williams boundary and would most likely not be heard outside of the boundary. There are no
38 residences that border the Proposed Action site. Furthermore, the Proposed Action site is to the
39 south-east of the existing highest noise impact location. Residential dwellings along the north
40 east boundary of Camp Williams (roughly one mile away) may perceive noise from current

1 operations and would unlikely perceive noise from construction activities associated with the
2 Proposed Action (see Figure 3-1). The Proposed Action site is outside of the current 65 dB noise
3 contour and with the amount of distance to the nearest sensitive receptor, audible noise from
4 construction activities are expected to be insignificant. Generally, construction noise is greatest
5 early in the construction project during clearing, grading, foundation work, and paving.
6 However, the noise impacts would be restricted to the daylight hours during weekdays.
7 Because of the timing of the construction-related noise (weekdays during the day), it would be
8 unlikely that persons outdoors could experience nuisance-level noise that could interfere with
9 normal conversations unless in the immediate construction area. Temporary
10 construction-related noise impacts would end once construction is complete.

11 During operation, noise levels would be comparable to existing noise levels. The residential
12 dwellings near the south boundary and eastern boundary would not likely perceive any change
13 in noise levels during operation. Additionally, during construction, workers will wear hearing
14 protection as directed by OSHA and National Guard requirements.

15 **4.4.2 Effects of the No Action Alternative**

16 No new construction or development activities are proposed under the No Action Alternative;
17 therefore, no new significant noise impacts would occur. Noise would continue from current
18 operational activities.

19 **4.4.3 Best Management Practices**

20 Depending on the project schedule, short-term, temporary noise impacts would be reduced
21 by restricting construction activities to daylight hours during weekdays only.

22 **4.4.4 Mitigation Measures**

23 No mitigation measures will be necessary to reduce any adverse environmental impacts to
24 below significant levels.

25 **4.5 Geology, Topography, and Soils**

26 Protection of unique geological features, minimization of soil erosion, and the siting of facilities
27 in relation to potential geologic hazards are considered when evaluating potential effects of a
28 Proposed Action on geological resources. Generally, adverse effects can be avoided or
29 minimized if proper construction techniques, erosion-control measures, and structural
30 engineering design are incorporated into project development. Effects on geology and soils
31 would be significant if they would alter the lithology, stratigraphy, and geological structures
32 that control groundwater quality, distribution of aquifers and confining beds, and groundwater
33 availability or change the soil composition, structure, or function within the environment.

34 **4.5.1 Effects of the Proposed Action**

35 Long-term, negligible to minor impacts on soils would be expected from implementing the
36 Proposed Action. The Proposed Action would require disturbance of up to 57 acres of existing
37 soils due to construction of roads and parking areas, construction of facilities, storage and
38 training areas, and excavation for placement of utilities. Approximately 18 acres of the 57-acre
39 Proposed Action site would be permanently converted to impervious surfaces from the
40 construction of the facilities, training areas, parking areas, and utilities. These activities would

1 include clearing of vegetation, paving, and grading. Clearing of vegetation would increase
2 erosion and sedimentation potential. Soil erosion and sediment production would be
3 minimized for all construction operations as a result of following an approved sediment and
4 erosion-control plan.

5 As a result of implementing the Proposed Action, soils would be compacted, and soil structure
6 disturbed and modified. Soil productivity, which is the capacity of the soil to produce
7 vegetative biomass, would decline in disturbed areas and be eliminated in those areas within
8 the footprint of building structures, roadways, or parking facilities.

9 Loss of soil structure due to compaction from foot and vehicle traffic could result in changes in
10 drainage patterns. Soil erosion and sediment control measures would be included in site plans
11 to minimize long-term erosion and sediment production at each site. Use of stormwater control
12 measures that favor re-infiltration would minimize the potential for erosion and sediment
13 production as a result of future storm events. However, as most of the site is only sparsely
14 vegetated, it is anticipated that clearing of vegetation would have a long-term, minor impact on
15 soil erosion and sedimentation, especially during storm events.

16 Short-term, minor adverse impacts would be expected from trenching activities associated with
17 placement of utilities. Trenching would involve removal of vegetation and disturbance of soil
18 structure. Removal of vegetation would temporarily increase erosion and sedimentation until
19 re-vegetation has occurred. Once vegetation has been reestablished, impacts from trenching
20 activities would be reduced to negligible.

21 Soil disturbance on steep slopes has the potential to result in excessive erosion due to instability
22 of the disturbed soils and high runoff energy and velocity. In addition, erosion from wind has
23 the potential to impact disturbed soils where vegetation has been removed or the earth is bare.

24 Twenty-nine (29) acres of Prime Farmland If Irrigated would be affected by the Proposed
25 Action. Proposed Actions that convert prime or unique farmland (i.e., as defined by the FPPA
26 and its implementing regulations) to non-farmable conditions must complete the Farmland
27 Conversion Impact Rating Form (Form Agriculture Department [AD]-1006) to determine
28 whether the Proposed Action site includes farmland subject to the FPPA and the potential for,
29 and magnitude of, farmland impacts. The completed Farmland Conversion Impact Rating Form
30 is included in Appendix C. The Farmland Conversion Impact Rating Form indicates that no
31 further consideration for farmland protection is required and no additional sites need to be
32 evaluated. No significant impacts to prime farmland would occur.

33 **4.5.2 Effects of the No Action Alternative**

34 Under the No Action Alternative, the Proposed Action site would not be developed and
35 existing conditions would remain. No effects on geological resources or soils would
36 be expected.

37 **4.5.3 Best Management Practices**

38 Site-specific geotechnical surveys would be conducted before implementation of the Proposed
39 Action to determine the breadth and severity of any engineering limitations. A project-specific
40 Stormwater Pollution Prevention Plan (SWPPP), erosion control plan, and construction BMPs
41 would be implemented to minimize soil erosion. BMPs could include installing silt fencing and

1 sediment traps, applying water to disturbed soil, and re-vegetating disturbed areas as soon as
2 possible after disturbance.

3 Camp Williams and the Proposed Action site are located in a seismically active zone; as such,
4 building and other structures would be constructed consistent with building code requirements
5 for development. This would minimize potential for adverse effects on human life associated
6 with earthquakes and development in the area.

7 **4.5.4 Mitigation Measures**

8 No mitigation measures will be necessary to reduce any adverse environmental impacts to
9 below significant levels.

10 **4.6 Water Resources**

11 **4.6.1 Effects of the Proposed Action**

12 **4.6.1.1 Surface Water**

13 The Proposed Action would not include disturbance to or use of the banks or bed of the Jordan
14 River, located approximately 2000 feet from the Proposed Action site. Therefore, no impacts to
15 the Jordan River would be expected and prior authorization from FFSL is not required (see
16 email correspondence dated December 10, 2015 in Appendix C).

17 Potential long-term, minor adverse effects on surface water features and surface water quality
18 would be expected as a result of the Proposed Action. Depending on the footprint of
19 construction, long-term impacts might include the permanent disruption of drainage to the
20 Provo Reservoir Canal and Utah Lake Distributing Canal.

21 Short- and long-term minor adverse effects could occur due to a potential increase in the
22 conveyance of nonpoint source pollutants in runoff to the canals in association with
23 construction activities. Placing the Utah Lake Distributing Canal within a box culvert would
24 minimize adverse impacts.

25 **4.6.1.2 Groundwater**

26 Depending on actual construction plans, potential long-term adverse minor impacts on
27 groundwater quality and decreased aquifer recharge could occur as a result of the Proposed
28 Action. Risks to groundwater quality from the Proposed Action include use of deicing agents
29 on roadways and parking lots, use of herbicides and pesticides and other chemicals or
30 hazardous substances, and potential spill incidents. Decreased aquifer recharge could occur
31 from surface disturbance that alters drainage patterns and/or creates more impervious surface
32 over the Proposed Action site.

33 **4.6.1.3 Wetlands and Waters of the United States**

34 The Proposed Action would avoid any impacts on wetlands and other waters of the United
35 States. No impacts would occur.

36 **4.6.1.4 Floodplains**

1 No floodplains are mapped on the Proposed Action site on the FEMA FIRM for this area. There
2 is no historical record of flooding on the Proposed Action site. No effects to floodplains would
3 result from the Proposed Action.

4 **4.6.2 Effects of the No Action Alternative**

5 There would be no impacts on water resources under the No Action Alternative because the
6 Proposed Action would not be implemented.

7 **4.6.3 Best Management Practices**

8 Based on requirements of Section 438 of the Energy Independence and Security Act (EISA), the
9 Proposed Action would maintain the predevelopment hydrology of the property to the
10 maximum extent technically feasible. Furthermore, construction would adhere to the EISA and
11 use Low Impact Development, Leadership in Energy and Environmental Design (LEED), and
12 other water reuse and retention strategies.

13 BMPs would be used during construction activities and could include installation of silt fencing,
14 hay bales, and/or gradient terraces. The BMPs would be implemented to:

- 15 • Minimize the amount of disturbed soil during construction
- 16 • Prevent runoff from offsite areas from flowing across disturbed areas
- 17 • Slow down runoff flowing across the site
- 18 • Remove sediment from onsite runoff before it leaves the site

19 These BMPs would be included as part of the National Pollutant Discharge Elimination System
20 permitting process. A project-specific SWPPP would minimize adverse impacts. Placing the
21 Utah Lake Distributing Canal within a box culvert would minimize adverse impacts.

22 **4.6.4 Mitigation Measures**

23 No mitigation measures will be necessary to reduce any adverse environmental impacts to
24 below significant levels.

25 **4.7 Biological Resources**

26 Biological resources are evaluated in terms of compliance with Section 7 of the ESA and related
27 laws and authorities. Emphasis is placed on species with legal, commercial, recreational,
28 ecological, or scientific importance. Biological resources might be affected directly by ground
29 disturbance or indirectly through such changes as increased construction noise. A habitat
30 perspective is used to provide a framework for analysis of general classes of effects on
31 biological resources (i.e., removal of critical habitat, noise, human disturbance). UTARNG
32 assessed effects on biological resources by evaluating the following:

- 33 • Potential for loss or alteration of suitable habitat and the proximity of similar habitat
- 34 • The proportion of the resource that would be affected relative to its occurrence in the region
- 35 • The sensitivity of the resource to proposed activities
- 36 • The duration of ecological effects

37 Under the ESA, federal agencies are required to provide documentation that ensures that
38 agency actions will not adversely affect the existence of any federally threatened or endangered
39 species. The ESA requires that all federal agencies avoid “taking” threatened or endangered

1 species (which includes jeopardizing threatened or endangered species habitat). Section 7 of
2 the ESA establishes a consultation process with USFWS that ends with concurrence on a
3 determination of the risk of jeopardy from a federal agency project. As a result of the BMPs
4 described below, implementation of the Proposed Action would not have impacts to threatened
5 or endangered species under the ESA.

6 4.7.1 Effects of the Proposed Action

7 4.7.1.1 Vegetation

8 According to USFWS and Utah DNR, three federally listed plant species are found within Utah
9 and Salt Lake Counties. The Proposed Action site has potentially suitable habitat for the Ute
10 ladies'-tresses (*Spiranthes diluvialis*); however, according to the Camp W.G. Williams Floristic
11 Survey Report, no rare or endangered species were found within Camp Williams (NSA, 2009,
12 and references within). The closest known occurrence of the Ute ladies'-tresses, or any federally
13 listed sensitive species, is near the north shore of Utah Lake, which is approximately 5 miles
14 from Camp Williams. Therefore, this species is unlikely to occur on Camp Williams and no
15 impacts on listed plant species would be expected.

16 Short- and long-term, minor to moderate adverse impacts on vegetation species presently
17 inhabiting the Lower Garrison would be expected from the implementation of Proposed Action.
18 Development of the Lower Garrison would adversely impact approximately 18 acres of the
19 57-acre site, converting existing habitat to impervious surfaces from the construction of the
20 facilities, training areas, parking areas, and utilities. In accordance with the management
21 guidelines in the Camp Williams INRMP (UTARNG, 2007a) relating to no net loss of habitat,
22 particularly of sagebrush, direct impacts to sagebrush habitat (shrubsteppe) by implementation
23 of the Proposed Action would be offset by creating sagebrush habitat or restoring an area once
24 supporting sagebrush habitat.

25 4.7.1.2 Wildlife

26 Short- and long-term, minor to moderate adverse impacts on wildlife species presently
27 inhabiting the Proposed Action site would be expected from the implementation of the
28 Proposed Action. Noise disturbances during construction, including clearing, grading,
29 excavation, and drilling, and noise associated with construction equipment moving to and from
30 the project site would be expected to disrupt several wildlife species.

31 Certain wildlife species adapted to urban development and noise levels associated with
32 common activities on Camp Williams (e.g., American robin, rock and mourning doves, and
33 raccoons) would be expected to return to the area after development. Other less-tolerant species
34 (e.g., sage thrasher, sage sparrow, and anteflexa pronghorn antelope) would be forced to
35 relocate permanently to adjacent similar and undeveloped habitats due to the permanent
36 reduction in habitat and increase in human disturbances from development. This would result
37 in long-term minor adverse effects. These species could be replaced by other species that are
38 more tolerant of urban environments, which are often invasive species (e.g., house sparrow
39 [*Passer domesticus*], or European starling [*Sturnus vulgaris*]). Replacement of native species with
40 invasive species would also cause long-term minor adverse impacts on native wildlife.

41 Long-term, minor, adverse impacts on smaller, less-mobile species within the Proposed Action
42 site could also occur as a result of direct mortality associated with collision with construction

1 equipment. Long-term, minor adverse impacts on wildlife would also be expected from
2 implementation of the Proposed Action due to loss of foraging, nesting, and burrowing habitat
3 within the project footprint. A loss of habitat for birds, reptiles, rodents, and other small
4 mammals would decrease prey availability for raptors and mammalian predators that might
5 use the Proposed Action site for hunting.

6 The Proposed Action site is composed primarily of sagebrush habitat, and impacts from the loss
7 of habitat within the Proposed Action site would be minor, as sagebrush communities cover
8 approximately 35 percent of Camp Williams (UTARNG, 2007a) and occur over relatively large
9 areas throughout the region.

10 Long-term, minor to moderate, adverse impacts on wildlife would be expected from the
11 implementation of the Proposed Action due to habitat fragmentation. In addition to the direct
12 loss of habitat associated with the Proposed Action, the establishment of permanent structures
13 and fencing around an approximately 57-acre area within this habitat could impact migrating
14 patterns for mule deer herds. During the reconstruction of Highway 68, the main vehicle
15 underpass was enlarged to facilitate mule deer crossing and to mitigate vehicle accidents.
16 Additionally, large predators such as coyotes, mountain lions, bobcats, and foxes might also use
17 the Proposed Action site as part of their generally large territories. As such, long-term adverse
18 impacts might be expected to be higher on wildlife species that require larger territory sizes,
19 such as raptors and large predators.

20 4.7.1.3 Sensitive and Protected Species

21 While sensitive and protected species have been observed as present on Camp Williams, it is
22 unlikely that federal- and state-listed threatened or endangered species would be impacted by
23 the implementation of the Proposed Action. However, if a federal- or state-listed threatened or
24 endangered species is encountered during construction within the Proposed Action site,
25 construction activities would cease and the USFWS or Utah DNR would be notified for
26 instruction on appropriate procedures to follow to ensure that the species were not adversely
27 impacted. Certain threatened or endangered species could be disproportionately sensitive to
28 short-term disturbances associated with construction and long-term disturbances from
29 developed environments. While BMPs can be implemented to protect immediate risks to state-
30 or federal-listed species, disturbances from the Proposed Action could be expected to preclude
31 future habitation of several sensitive or protected species on Camp Williams.

32 Golden eagle nests are located near the windmills north of the Lower Garrison development
33 area, approximately 0.5 mile from the proposed road access to the Proposed Action site. The
34 USFWS recommends a spatial buffer of 0.5 mile between golden eagle nests and urbanization
35 and construction activities that might impact golden eagles (USFWS, 1999). However, recent
36 observations of these nests during the April 2009 site visit indicated that red-tailed hawks might
37 have taken over one of the nesting sites. Regular monitoring of these nests for reestablishment
38 by golden eagles and for new golden eagle nests within and adjacent to the Proposed Action
39 site would be performed, particularly before and during construction activities. Bald eagles
40 have been observed occasionally roosting in trees on the NSA property adjacent to the Proposed
41 Action site; however, nesting bald eagles have not been reported. Continued monitoring for
42 bald eagle activity and nests would be conducted, as the USFWS recommends a spatial buffer of
43 1 mile between bald eagle nests and urbanization and construction disturbances (USFWS, 1999).

1 Several migratory birds, particularly shrub- and ground-nesting species, would be expected to
2 use the Proposed Action site for nesting purposes. The Migratory Bird Treaty Act of 1918
3 (16 USC 703–712), as amended, and EO 13186, Responsibilities of Federal Agencies to Protect
4 Migratory Birds, require federal agencies to minimize or avoid impacts on migratory birds
5 listed in 50 CFR 10.13. If design and implementation of a federal action cannot avoid
6 measurable negative impact on migratory birds, EO 13186 requires the responsible agency to
7 consult with the USFWS and obtain a Migratory Bird Depredation Permit. There have been no
8 recent recordings of threatened or endangered species occurring at Camp Williams, with the
9 exception of the American white pelican (state-listed wildlife species of concern), which is
10 occasionally observed flying above the Jordan River. Long-term impacts on the American white
11 pelican would not be expected from the development of the Proposed Action site. Extensive
12 surveys conducted in the summer of 2005 for federally or state threatened or endangered
13 species and ongoing avian surveys have revealed no sensitive or protected species occurring on
14 Camp Williams. Consequently, the Proposed Action would have no effect on federal- and state-
15 listed species.

16 4.7.2 Effects of the No Action Alternative

17 No impacts on biological resources would be expected under the No Action Alternative and
18 conditions would remain as described in the Affected Environment.

19 4.7.3 Best Management Practices

20 BMPs would include providing educational materials and briefing construction personnel on
21 the potential animal and plant species that might be encountered, specifically, threatened or
22 listed plant and animal species, as well as invasive and noxious plants known to be on site.
23 Noxious weed would be identified during construction site preparation activities. Clear and
24 grub activities would be conducted in areas with noxious weeds so these materials are not
25 spread or dumped so as to propagate noxious species.

26 In accordance with the management guidelines in the Camp Williams INRMP (UTARNG,
27 2007a) relating to no net loss of habitat, particularly of sagebrush, direct impacts to sagebrush
28 habitat (shrubsteppe) by implementation of the Proposed Action would be offset by creating
29 sagebrush habitat or restoring an area once supporting sagebrush habitat. The relevant
30 language from the Camp Williams INRMP is: "General Management Guidelines area
31 to: ...4. Uphold a "no net loss" of habitat, particularly of sagebrush. The sagebrush-steppe is
32 rapidly being developed along the Wasatch Front and elsewhere in the Great Basin. Its
33 conservation is a recommendation of the Western Working Group of the DoD PIF." The DoD
34 PIF is the Department of Defense Partners in Flight program. See <http://www.dodpif.org/>.
35 The DoD PIF Strategic Plan recommends incorporation of habitat conservation strategies into
36 installation INRMP's.

37 The following BMPs would be implemented for reduction or avoidance of impacts on migratory
38 birds:

- 39 • Any groundbreaking construction activities would be performed before migratory birds
40 return to the site (approximately March 15) or after all young have fledged
41 (approximately July 31) to avoid incidental take.

- 1 • If construction is scheduled to start during the period in which migratory bird species
2 are present, steps would be taken to prevent migratory birds from establishing nests in
3 the potential impact area. These steps could include covering equipment and structures
4 and use of various excluders (e.g., noise). Birds can be harassed to prevent them from
5 nesting on the site. Once a nest is established, they cannot be harassed until all young
6 have fledged and are capable of leaving the nest site.
- 7 • If construction is scheduled to start during the period when migratory birds are present,
8 a site-specific survey for nesting migratory birds would be performed starting at least
9 2 weeks before site clearing.
- 10 • If nesting birds are found during the survey, buffer areas would be established around
11 nests. Construction should be deferred in buffer areas until birds have left the nest.
12 Confirmation that all young have fledged would be made by a qualified biologist.
- 13 • Buildings would be designed to minimize potential for bird collisions with windows in
14 accordance with the Bird-friendly Building Design guidance (Audubon Society of
15 Portland, 2012).

16 4.7.4 Mitigation Measures

17 No mitigation measures will be necessary to reduce any adverse environmental impacts to
18 below significant levels.

19 4.8 Cultural Resources

20 Potential impacts are assessed by (1) identifying the nature and potential importance of cultural
21 resources in potentially affected areas and (2) identifying activities that could directly or
22 indirectly affect cultural resources classified as historic properties.

23 4.8.1 Effects of the Proposed Action

24 Construction within the Proposed Action site has the potential to adversely affect two
25 NRHP-eligible historic properties. Utah Lake Distributing Canal (42UT946) and Provo
26 Reservoir Canal (42UT947) are eligible resources that could be adversely affected by
27 construction. The UTARNG recently executed a memorandum of agreement with the UT SHPO
28 to enclose both of the historic canal segments, 42UT946 and 42UT947, located adjacent to the
29 Proposed Action site. Accordingly, the Proposed Action will not impact any features of the
30 canals which contribute to their NRHP eligibility.

31 A determination of No Adverse Effect for the Proposed Action was prepared and submitted to
32 UT SHPO for review. As documented in a letter dated February 13, 2014, UT SHPO concurs
33 with the determination and effect for the Proposed Action (see Appendix C). Avoidance of the
34 site and a written Unanticipated Discovery Plan to address the steps to take in the event buried
35 cultural resources or artifacts are discovered during construction would adequately mitigate
36 any potential effects. As a result, no impacts would occur.

37 4.8.1.1 Native American Consultation

38 At the time of publication, no Native American comments have been received and there are no
39 known archaeological sites, Traditional Cultural Properties, or landscapes that are a concern to
40 Native Americans.

1 4.8.1.2 Paleontological Resources

2 The Proposed Action site is considered to have a low probability for yielding significant
3 paleontological resources. The Proposed Action would not adversely affect paleontological
4 resources.

5 4.8.2 Effects of the No Action Alternative

6 The No Action Alternative would have no effect on cultural resources as no ground-disturbing
7 activities would occur.

8 4.8.3 Mitigation Measures

9 No mitigation measures would be necessary to reduce any adverse environmental impacts to
10 below significant levels.

11 4.9 Socioeconomics

12 4.9.1 Effects of the Proposed Action

13 The Proposed Action at Camp Williams would increase the UTARNG capabilities and
14 strengthen the facility in the military marketplace, providing a stable work environment, while
15 allowing Camp Williams to meet future and current missions.

16 There are expected positive short- to long-term minor impacts to the regional economy from
17 construction-related jobs. The Proposed Action includes the construction of the following
18 facilities/attributes and associated expenditures:

- 19 • Road Infrastructure: cost is \$3.2 million
- 20 • Utilities Corridor(s): cost is \$2.4 million
- 21 • 19th SFG Readiness Center: cost is \$37 million

22 Outside of influencing the local economy through construction activity, impacts would not be
23 significant. Overall, there would not be a substantial change in population or employment and
24 there would be no displacement of people or housing.

25 4.9.1.1 Public and Occupational Health and Safety

26 Camp Williams is operated as a secure installation with controlled access and is entirely fenced
27 and patrolled. The general public is not allowed access.

28 Construction workers would have the potential for accidents as a result of operating heavy
29 equipment. Construction workers would use appropriate protection and would follow
30 OSHA standards and procedures. OSHA requires worker protection and monitoring for
31 activities that disturb paint that contains lead in any amount. The contractor would be
32 responsible for ensuring that all contractor employees (and subcontractors) comply with all
33 applicable OSHA standards.

34 Before construction in the project area, a site-specific Health and Safety Plan would be created
35 and implemented, which would provide guidance on hazardous materials, chemicals, or
36 hazardous conditions that could be encountered. Also, considering the presence of the former
37 landfill and unknown nature of the wastes disposed, ACM, LBP, and polychlorinated biphenyls

1 (PCBs) could be present in the former landfill and would be handled in accordance with all
2 appropriate laws and regulations if encountered.

3 UTARNG workers could also potentially be exposed to ACM and LBP during construction
4 activities. However, construction work areas would be established with limited access, and
5 Camp Williams workers would not be allowed to work in active construction areas. According
6 to U.S. Army National Guard's March 14, 2007, ECOP Standard Operating Procedure,
7 Appendix C Special Contamination Concerns guidance document, if no LBP survey has been
8 conducted, assume that buildings constructed before 1978 possibly contain LBP. In addition, if
9 suspected ACM is identified, an ACM survey would be performed, with any confirmed
10 ACM managed in accordance with appropriate regulations.

11 Implementing the Proposed Action would increase overall health and safety by ensuring
12 adequate and modern infrastructure for the growing facility.

13 4.9.1.2 Protection of Children

14 The Proposed Action would not result in environmental health or safety risks that could affect
15 children. No families or resident populations live at Camp Williams; therefore, no dependent
16 children under the age of 18 would reside onsite. Access to construction areas would be
17 controlled, thereby limiting unauthorized access by any person, including children. All
18 members of the public would be prohibited from accessing the property without authorization.

19 4.9.2 Effects of the No Action Alternative

20 Under the No Action Alternative, there would be no socioeconomic benefits to the region. The
21 No Action Alternative would have a minor negative impact on the socioeconomic environment
22 of the region.

23 4.9.3 Mitigation Measures

24 No mitigation measures would be necessary to reduce any adverse environmental impacts to
25 below significant levels.

26 4.10 Environmental Justice

27 4.10.1 Effects of the Proposed Action

28 The Proposed Action is not likely to impact a disproportionate population of low-income
29 families, or minorities because the components of the Proposed Action would occur entirely
30 within the fenced boundary. However, for reference purposes, when evaluating the minority
31 population of the ROI, it is comparable or lower to the reference areas populations.

32 Poverty levels can be evaluated based on the census tracts surrounding the ROI along with the
33 reference areas of Salt Lake County, Utah County, and the State of Utah. The percentage of
34 population living below the poverty level in the ROI is lower than the reference areas; therefore,
35 there would be no disproportionate impact of the Proposed Action on low-income populations.

36 4.10.2 Effects of the No Action Alternative

37 Implementation of the No Action Alternative would not result in a change in current conditions
38 and, therefore, no impacts to Environmental Justice would occur.

1 4.10.3 Mitigation Measures

2 No mitigation measures would not be necessary to reduce any adverse environmental impacts
3 to below significant levels.

4 4.11 Infrastructure

5 4.11.1 Effects of the Proposed Action

6 The analysis to determine potential impacts on infrastructure and infrastructure systems
7 considers primarily whether a Proposed Action would exceed capacity or place unreasonable
8 demand on a specific utility. All infrastructure and utility resources would need to be expanded
9 from the cantonment area as a result of the Proposed Action. The Proposed Action site is largely
10 undeveloped land and infrastructure would need to be installed to support the development
11 and operation of new facilities.

12 4.11.1.1 Water Supply

13 Water supply infrastructure would be designed and constructed to meet estimated demands for
14 the Proposed Action and planned future development. Negligible impacts on regional water
15 supply from increased use associated with the Proposed Action would be expected.

16 4.11.1.2 Wastewater System

17 No existing wastewater system is present at the Proposed Action site. A wastewater system
18 would be designed and constructed to meet estimated demands for the development and
19 would tie into the sanitary sewer line in Mink Road. The wastewater and sanitary sewer
20 discharge from the Proposed Action would be discharged to the Lehi Sewer District. Negligible
21 impacts on the sanitary sewer and wastewater systems from an increase in use associated with
22 the Proposed Action would be expected.

23 4.11.1.3 Stormwater System

24 A stormwater system is not present at the Proposed Action site. A stormwater system would be
25 designed and constructed to meet requirements for the drainage areas. No impacts to the
26 existing stormwater system would occur.

27 4.11.1.4 Solid Waste Management

28 Increases in the generation of solid waste associated with the Proposed Action would be
29 managed by expanding the existing solid waste management system for the Upper Garrison
30 area. All solid waste would be disposed of offsite in accordance with applicable state and
31 federal regulations. Construction wastes resulting from the Proposed Action would be handled
32 and disposed in accordance with state and federal regulations.

33 Negligible impacts on solid waste management would be expected as a result of the Proposed
34 Action from generation of small amounts of waste associated with operation of the new
35 facilities.

36 4.11.1.5 Energy Distribution System

37 An energy distribution system is not present at the Proposed Action site. Electrical and natural
38 gas utilities would be designed and constructed to meet the estimated needs for the Proposed

1 Action and planned future development. The natural gas and power demands for the Proposed
2 Action would not be expected to place a significant demand on their availability in the region.
3 Long-term minor adverse direct or indirect impacts on electrical and natural gas systems from
4 increased use would be anticipated.

5 4.11.1.6 Traffic and Transportation

6 Short-term, minor adverse impacts on traffic circulation would be expected due to road closures
7 and increased construction traffic. The road closures and construction traffic would be
8 temporary and appropriate traffic control measures would be implemented.

9 4.11.2 Effects of the No Action Alternative

10 Under the No Action Alternative, there would be no change in or impacts on infrastructure.

11 4.11.3 Best Management Practices

12 As required by Assistant Secretary of the Army, Installations, Energy and Environment,
13 Sustainable Design and Development Policy Update, 16 Dec 2013, all new ARNG construction
14 is required to adhere to the EISA and use Green Infrastructure/Low Impact Development,
15 LEED, and other conservation and reduction strategies. All new ARNG buildings will be
16 constructed to meet the U.S. Green Building Council's LEED Silver Certification and to meet EO
17 13423, Strengthening Federal Environmental, Energy, and Transportation Management, and EO
18 13693, Planning for Federal Sustainability in the Next Decade. In addition, Section 438 of the
19 EISA requires that any federal facility with a proposed disturbance area exceeding 5,000 ft²
20 maintain the predevelopment hydrology of the property to the maximum extent technically
21 feasible. At present, design services for the Special Forces Readiness Center have not been
22 retained, so no specific LEED compliance measures are known.

23 Implementation of these measures would result in beneficial impacts from cost-effective energy
24 conserving features, as well as conducting environmental-, transportation-, and energy-related
25 activities, in an environmentally sustainable manner. Facilities will be constructed with
26 improved energy efficiency, to conserve and protect water resources, eliminate waste, recycle,
27 and prevent pollution, as well as endeavor to acquire sustainable technologies and
28 environmentally preferable materials, projects, and services.

29 4.11.4 Mitigation Measures

30 No mitigation measures would be necessary to reduce any adverse environmental impacts to
31 below significant levels.

32 4.12 Hazardous and Toxic Materials/Wastes

33 Short-term adverse impacts on construction workers would be expected from potentially using
34 hazardous materials during construction activities. The DoD and Army regulations (including
35 AR 385-10, the Army Safety Program, and AR 40-5, Preventative Medicine) have been put in
36 place and would be adhered to in order to protect workers and comply with EPA and OSHA
37 requirements.

1 4.12.1 Effects of the Proposed Action

2 4.12.1.1 Hazardous Materials/Waste and Petroleum Products

3 Implementation of the Proposed Action would result in short-term, negligible to minor adverse
4 impacts, resulting from the use of hazardous materials associated with construction activities
5 (e.g. fuel, oils, lubricants, construction materials). The hazardous material quantity used during
6 the construction of the Proposed Action would be relatively minimal and the use would be of
7 short duration. The amount of hazardous wastes generated from the Proposed Action would be
8 minor. All hazardous materials brought on site would be required to be stored in appropriate,
9 ventilated, and spill-protected structures located on asphalt or an equivalent impervious
10 surface. Volatile materials would be maintained in closed containers. Hazardous wastes would
11 be disposed of in accordance with local, state, and federal regulations. If fuels are stored onsite
12 for construction equipment, a Spill Prevention, Control and Countermeasures Plan would be
13 developed.

14 4.12.1.2 Asbestos-containing Material, Lead-Based Paint, and PCBs

15 No ACM or LBP surveys have been performed at the Proposed Action site. The transformer
16 inventory conducted during 1987 by UTARNG officials indicated no historical or current (1987)
17 reports of PCB-containing transformers at Camp Williams except for four transformers
18 stockpiled temporarily within the outdoor Facility Maintenance Storage Area (UTARNG,
19 2008b).

20 4.12.1.3 Aboveground and Underground Storage Tanks

21 No aboveground or underground storage tanks are known to have been present within the
22 Proposed Action site.

23 4.12.1.4 Military Munitions Response Program

24 No impacts would be expected. The Southeast Simulated Attack Area MRS is located east of the
25 Proposed Action site and is recommended for a No Further Action status. There are no known
26 concentrations of Target Analyte List metals above background levels in the soils at the
27 Southeast Simulated Attack Area MRS and there is no known evidence that the soil and
28 groundwater in the training area have been impacted by munitions constituents. In addition,
29 MEC is expected to have been directly deposited on the ground surface and buried MEC is not
30 expected at the Southeast Simulated Attack Area MRS (UTARNG, 2008b).

31 4.12.1.5 Military Munitions and Unexploded Ordnance

32 No impacts would be expected. There is no known unexploded ordnance within the Proposed
33 Action site.

34 4.12.2 Effects of the No Action Alternative

35 Under the No Action Alternative, there would be no change in or impacts on environmental
36 restoration, hazardous materials and wastes at Camp Williams.

37 4.12.3 Best Management Practices

38 Construction contractors would be required to prepare and implement pollution prevention
39 plans. Emergency response and cleanup measures would be used to respond to environmental

1 contamination in the event of an accidental release. Spill contingency plans and secondary
 2 containment would be implemented as necessary. The use of hazardous materials would be
 3 minimized to the extent practicable.

4 **4.12.4 Mitigation Measures**

5 No mitigation measures would be necessary to reduce any adverse environmental impacts
 6 below significant levels.

7 **4.13 Best Management Practices**

8 Unavoidable, less-than-significant impacts would result from implementation of the Proposed
 9 Action, but these impacts would be reduced through implementation of the BMPs listed in
 10 Table 4-2.

TABLE 4-2
 Best Management Practices for the Proposed Action

Resource Area	Best Management Practices
Land Use	Implementing appropriate setback criteria and screening in site design would reduce impacts associated with the potential increase in activity and traffic generation.
Air Quality	Construction vehicle emissions would be minimized through contractual requirements of the contractor to implement routine maintenance of vehicles. Construction dust and particles would be reduced through the implementation of fugitive dust control measures, such as the application of water to exposed ground.
Noise	Construction activities would be limited to typical working hours, minimizing exposure of other personnel on Camp Williams. Workers would be required to wear appropriate hearing protection.
Geology, Topography, and Soils	Installation erosion control BMPs such as silt fencing and sediment traps, applying water to disturbed soil, and re-vegetating disturbed areas as soon as possible after disturbance.
Water Resources	BMPs would be used during construction activities to control stormwater run-off and reduce erosion. They could include installation of silt fencing, hay bales, and/or gradient terraces. A project-specific SWPPP and placing the Utah Lake Distributing Canal within a box culvert would minimize adverse impacts.
Biological Resources	Direct impacts to sagebrush habitat would be offset by creating sagebrush habitat or restoring an area once supporting sagebrush. Reduction to impacts on migratory birds would be accomplished through proper coordination of construction timing.
Hazardous and Toxic Materials/Wastes	Development of appropriate work plans for hazardous and toxic waste encounters during implementation of the Proposed Action would reduce potential significant impacts. These plans would include pollution prevention, emergency response, and spill contingency plans.

11 **4.14 Mitigation Measures**

12 No mitigation measures would be necessary to reduce any adverse environmental impacts to
 13 below significant levels.

4.15 Cumulative Effects

4.15.1 Introduction

As defined by CEQ Regulations at 40 CFR Part 1508.7, cumulative impacts are those that “result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (Federal or non-Federal) or individual who undertakes such other actions.” Cumulative impact analysis captures the effects that result from the Proposed Action in combination with the effects of other actions in the Proposed Action’s ROI.

Because of the number of past, present, and reasonably foreseeable future actions near Camp Williams, cumulative effects are the most difficult to analyze. The NEPA requires the analysis of cumulative environmental effects of a Proposed Action on resources that may often be manifested only at the cumulative level, such as traffic congestion, air quality, noise, biological resources, cultural resources, socioeconomic conditions, utility system capacities, and others.

Past, present, and reasonably foreseeable actions in the vicinity of the Proposed Action site analyzed in this EA include the following:

- The Thanksgiving Point development includes a golf course, a park, and a residential development across the Jordan River to the east of Camp Williams.
- Nearby construction of the National Data Center.
- Residential development associated with Lehi City.
- The UTARNG has expressed to the Utah Department of Public Safety that their lease for operation of the driving track located to the southeast of the Proposed Action site will be terminated and not renewed.

Potential long-term projects associated with the Lower Garrison Development are summarized in Table 4-3.

TABLE 4-3
Summary Descriptions of Potential Long-term Facilities

Component	Component Description	Anticipated Impact (approximate)	Known Military Construction (MILCON) Number	Planned Fiscal Year for Construction
Photo Voltaic Arrangement and Wind Turbine Generation Station	Provide renewable energy source to power the Lower Garrison area (cost \$3.5 million)	± 20,000 ft ²	Alternative approval process	2016
Metal Cold Storage Buildings	Construction and use of storage facilities (cost \$8 million at build out)	± 400,000 ft ²	Proposed Action planned over next 10 years	2019

TABLE 4-3
Summary Descriptions of Potential Long-term Facilities

Component	Component Description	Anticipated Impact (approximate)	Known Military Construction (MILCON) Number	Planned Fiscal Year for Construction
Unit Training Area	Construction and use of unit training areas and buildings (cost \$4.5 million for pads and \$14 million for structures)	± 195,000 ft ²	Proposed Action planned over next 10 years	2019 – 2023 (Phased projects)
Secured Entrance Facility	Provide monitored and secured entrance to Camp Williams (cost \$1 million)	± 2,000 ft ²	Future planned facility to meet Antiterrorism Force Protection (ATFP)	2020
MWR Facilities	Construction and use of MWR facilities to support (cost \$4 million)	± 450,000 ft ²	Future planned facilities	2020 – 2025 (Troop labor projects scheduled during annual training)
Warehouse Facility	Construction and use of warehouse facility for UTARNG (cost \$18 million)	± 125,000 ft ²	Proposed Action planned over next 10 years	2022
Family Support Center	Construction and use of facilities for family support (cost \$4 million)	± 100,000 ft ²	Future planned facility	2022
CSMS	Construction and use of CSMS for UTARNG (cost \$56 million)	± 195,000 ft ²	Project Number 490605	2023
Controlled Waste Handling Facility	Construction and use of waste disposal facilities (cost 1.2 million)	± 1,500 ft ²	Alternative approval process	2026
JFHQ	Construction and use of JFHQ (cost \$18 million)	± 350,000 ft ²	Proposed Action planned over next 10 years	2032
Total ± 1,838,500 ft ²				

1 These potential long-term facilities are described in the following bulleted list. The locations
 2 planned for these potential future projects are shown on Figure 1-1.

- 3 • **Photo Voltaic Arrangement:** This is a specially designed photo voltaic arrangement that
 4 would allow solar generation of power and hot water for distribution within Camp
 5 Williams. What is not used would be distributed out to the main power grid and credit
 6 would be issued to Camp Williams. Two of these projects are planned for the Lower

1 Garrison Development. Each of these projects would include 500 solar panels and
2 produce an estimated 665 kilowatt-hours of electricity.

- 3 • **Metal Cold Storage Buildings and Complex:** This project would provide a series of cold
4 storage buildings that would allow units from all over the State of Utah to store supplies
5 and equipment that are not critical for day-to-day operations, but that must be stored to
6 meet mission readiness.
- 7 • **Unit Training Area(s):** These areas would be used by units required to set up temporary
8 operations to replicate field training exercises. These would be constructed as open
9 spaces with flat surfaces that allow a unit within a minimal amount of time to deploy
10 their equipment and set up a function training area to replicate a field situation for
11 training purposes. They may also include transient training facilities, unit buildings,
12 mess halls, and other required or support facilities.
- 13 • **Secured Entrance Facility:** This facility would manage the security and security functions
14 for the Base. This facility would be positioned at an entrance to allow for the main
15 purpose of controlling and monitoring entrances to and from the Garrison. This is
16 required as part of the ATFP plans for the Garrison. This would include special turn and
17 rejection lanes, a covered area for vehicle inspections, a house for guards and personnel,
18 and areas to search suspicious personnel. It would also have all applicable
19 ATFP required equipment and items as required.
- 20 • **MWR Facilities:** These would be constructed recreational facilities that provide camping
21 spots and trailer hookups for soldiers in either transient or recreational formats. They
22 would include facilities that rent out or lend out special recreational equipment items
23 and provide spaces for some of them to be used onsite. They would also consist of
24 storage space for recreational vehicles, all-terrain vehicles, boats, fishing facilities,
25 archery facilities, and other uses as deemed reasonable by the Program Manager.
- 26 • **Warehouse Facility:** This facility would supply and support troops of the Utah National
27 Guard and other Commands that require support of supplies and equipment that are
28 organic to all units, items that can be replenished, or otherwise authorized for this type
29 of facility.
- 30 • **Family Support Center:** This center would support the Family Support Mission that is
31 assigned to the State of Utah. The program provides day activities for soldiers and their
32 families, counseling, deployment support, post deployment support, reintroduction
33 training and support, job support, and other related support and programs.
- 34 • **CSMS Complex:** This facility would provide the space for the shops that support and
35 maintain all rolling stock and equipment of the Utah National Guard. It would include
36 maintenance bays, painting bays, allied trade shops, and administrative space for the
37 CSMS, its soldiers, and employees.
- 38 • **Controlled Waste Handling Facility:** This facility would collect recyclable items to be shipped
39 offsite. It would allow for storage, sorting, and collection of items that can be recycled or
40 that require special demolition outside of normal waste or garbage removal methods.

- JFHQ: This is a specially designed readiness center that would allow for space for the training and support of the Navy Reserve, Marine Reserve, Army Reserve, and Utah National Guard units and soldiers. The JFHQ would be designed and constructed to support their unique training and mission requirements. It would also allow for a space for the units to store rolling stock and other equipment.

4.15.2 Cumulative Effects within the Area

Overall, Camp Williams is located in an area that is growth-restricted due to surrounding topographical features. Despite terrain, however, the nearby cities of Herriman, Bluffdale, Lehi, Saratoga Springs, and Eagle Mountain have experienced significant growth (EFT Architects, 2012a).

This steady growth has increased regional traffic congestion, air quality impacts, and other environmental effects, placing increased demands on services, utilities, and infrastructure, and consuming former open space areas with new development. Development of former open space has resulted in associated natural and cultural resources impacts, and the conversion of prime and unique farmlands. The topographical restrictions, however, will ultimately cause a decrease in nearby development potential and cause the potential for further impacts to taper off.

4.15.3 Cumulative Effects of the Proposed Action

Implementation of the Proposed Action is not expected to result in any significant cumulative impacts. Cumulative net positive impacts to the local socioeconomic environment would be realized. The Proposed Action would not noticeably contribute to the ongoing regional decline in natural or cultural resources, as no significant resources would be affected if proper BMPs are implemented. In terms of air quality, the Proposed Action would not significantly, cumulatively increase regional impacts; the action primarily involves staff and activities currently present at Camp Williams. The Proposed Action would maintain or enhance the local socioeconomic environment through providing short-term construction jobs and long-term benefits through increased training use of the site, with consequent increases in local spending.

While positive cumulative impacts to the socioeconomic environment would be anticipated, the Proposed Action would likely produce localized, less-than-significant adverse effects to the human environment through less-than-significant potential increases in local area air quality emissions, and noise. As noted previously, this does not represent a regional cumulative impact.

Under the No Action Alternative, UTARNG would not construct the Proposed Action and would continue with operations as currently conducted at Camp Williams. The UTARNG would remain under current conditions and continue to operate under current, effective environmental management plans. This situation, however, results in less-than-significant adverse socioeconomic effects to the local area by failing to provide secure job markets in the region.

4.15.4 Inter-relationship of Cumulative Effects

The environment surrounding the Proposed Action site is changing. The RPDP for UTARNG's Lower Garrison is to develop an approximately 291-acre tract within the Camp Williams boundary, including the approximately 57 acres in the Proposed Action. This would produce environmental effects. Within the surrounding area and region, a need for land to accommodate

1 the area's increasing population and economic development, including additional industrial
2 uses, businesses, homes, and related services and infrastructure would produce environmental
3 effects. These two factors are interrelated in two ways:

- 4 1. One of the missions of the UTARNG is to service the emergency needs of the people of the
5 State of Utah. Land and facilities are necessary to accommodate training so that the
6 UTARNG can service the community effectively (as well as the entire country, in terms of
7 national defense). As such, the growth of the region, Utah, and the nation as a whole drives
8 the need for this additional training and support capability; and
- 9 2. Both factors produce pressures on the environment within the region.

10 Interrelated cumulative impacts place demands on the local area, planning organizations, and
11 the military's natural resource management, cultural resource management, and public works
12 personnel. Through sound, integrated, long-range planning on both sides of the proverbial
13 fence, these impacts are minimized.

14 No significant adverse cumulative impacts to the environment, induced by changes under the
15 Preferred Action, are anticipated within the region. Close coordination between the UTARNG
16 and local planning authorities and community representatives would serve to minimize any
17 identified potential future land use conflicts. Implementation of land use and resource
18 management plans would serve to control the extent of environmental impacts, and proper
19 planning would ensure that future socioeconomic conditions maintain the quality of life that
20 area residents currently enjoy. Implementation of effective environmental management plans
21 and programs would minimize or eliminate any potential cumulative degradation of the
22 natural ecosystem.

23

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5.0 Comparison of Alternatives and Conclusions

5.1 Comparison of the Environmental Consequences of the Alternatives

Table 5-1 summarizes the consequences of the Proposed Action and the No Action Alternative.

Minor, less-than-significant adverse impacts would be associated with land use, air quality, noise, geology, topography, and soils, water resources, biological resources, infrastructure, and hazardous and toxic materials/wastes.

The Proposed Action involves the construction of critical infrastructure, future facilities, and road networks. Positive long-term impact on the local economy from construction-related jobs can be expected over the project implementation timeframe.

There would be beneficial impacts on utilities (e.g., wastewater, energy, water, etc.) as new facilities are constructed. The Proposed Action expansion of the facility would present the most-efficient use of government resources as operations are streamlined and co-located.

TABLE 5-1
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Geographic Setting and Location	Long-term, less than significant adverse impacts through removal of some vegetative cover to support new buildings. Implementing appropriate setback criteria and screening in site design would reduce potential long-term, less than significant adverse impacts on the potential encroachment on adjacent city.	Facilities would not be constructed at Camp Williams resulting in no impacts.
Land Use	Conversion of 57 acres of currently undeveloped land. Short- to long-term, less-than-significant adverse impacts on land use associated with construction and operational activities.	No impacts on land use. UTARNG would continue to use inadequate facilities that do not meet the training, administrative, and storage space requirements.
Air Quality	Short-term, less-than-significant adverse impacts associated with fugitive dust during construction activities. Impacts would be reduced through BMPs, including water application. Long-term, less-than-significant adverse impacts associated with the creation of permanent sources of air emissions. UTARNG prepared a General Conformity Record of Nonapplicability for the Proposed Action.	No change in current conditions or operations resulting in no impacts.

TABLE 5-1
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Noise	Construction-related noise could produce short-term, less-than-significant adverse impacts. BMPs would reduce impacts by limiting noise to daylight hours during weekdays.	No new construction or development would result in no new noise impacts. Noise would continue from current operational activities.
Geology, Topography, and Soils	Disturbance of up to 57 acres of existing soils for clearing, paving, and/or grading. Short-term, less-than-significant adverse impacts associated with potential erosion and sedimentation. Similar impact associated with trenching activities needed for the placement of utilities. Impacts would be reduced through BMPs.	No impacts as a result of no changes to current conditions.
Water Resources	Construction activities and new operations could contribute to short- and long-term, less-than-significant adverse impacts to the nearby Provo Reservoir Canal and Utah Lake Distributing Canal. The use of BMPs would reduce impacts during and following construction.	No impacts to nearby surface waters.
Biological Resources	Approximately 18 acres of vegetation would receive long-term, less-than-significant adverse impacts with the implementation of the Proposed Action. Short- and long-term, less-than-significant adverse impacts on wildlife species would be expected during construction activities with certain species returning after development while others permanently relocated. Construction activities could also reduce numbers of less-mobile species through collision or demolition of habitat. Habitat fragmentation from implementation of the Proposed Action could create long-term, less-than-significant adverse impacts on wildlife.	No impacts would be expected and current habitat would remain.
Cultural Resources	No impacts. The State Historic Preservation Office (SHPO) has concurred with this determination (see Appendix C).	No impacts as no ground-disturbing activities would occur.
Socioeconomics (including Environmental Justice and Protection of Children)	Short- and long-term, positive impacts due to increases in construction and manufacturing employment. New jobs would be associated with construction of the proposed projects. No adverse impacts that could affect low-income populations or children.	Potential short- and long-term, less-than-significant adverse impacts by failing to provide secure job markets in the region with respect to UTARNG jobs.
Utilities	Utility resources would need to be expanded to support new development. Negligible to long-term, less than significant adverse impacts on utilities would be anticipated.	Utility usage would continue as under current conditions.
Transportation and Traffic	Short-term, less-than-significant adverse impacts due to road closures and increased construction traffic.	No new construction or development would result in no new impacts to transportation and traffic.

TABLE 5-1
Comparison of Impacts of Considered Alternatives

Technical Resource Area	Preferred Action Alternative	No Action Alternative
Hazardous and Toxic Materials/Wastes	Short-term, less-than-significant adverse impacts could result from the use of hazardous materials during construction activities. Use of personal protective equipment, monitoring and adherence to Occupational Safety and Health Administration (OSHA) and UTARNG safety requirements would reduce potential risks.	No new impacts. Existing hazardous materials/waste management plans would continue to be implemented at UTARNG.

1

2 5.2 Conclusions

3 This EA describes the comprehensive evaluation of the existing conditions and environmental
4 consequences of implementing the Proposed Action and the No Action Alternative, as required
5 by NEPA.

6 Based on the findings of this EA there would be no significant adverse impact to environmental
7 resources resulting from the Proposed Action or the No Action Alternative. A draft Finding of
8 No Significant Impact has been prepared to accompany this EA, which concludes preparation of
9 an Environmental Impact Statement is not required for this Proposed Action.

10 This document is intended to be an assessment of components of the Lower Garrison
11 Development that are or will be funded in the near term, namely the SFG Readiness Center and
12 associated road and utility infrastructure. The UTARNG will conduct additional NEPA analysis
13 in coordination with ARNG-ILE for each of the other projects included in the Lower Garrison
14 Development at the appropriate time, as needed. This EA will be used as a parent document
15 from which the UTARNG can develop follow-on NEPA analysis. A Record of Environmental
16 Consideration (REC) may be prepared, as necessary, for each project in accordance with the
17 requirements established at 32 CFR §651.29 and following the guidance found in the ARNG
18 NEPA handbook, 1 October 2011. A REC will be prepared for construction of an addition to an
19 existing structure or new construction on a previously undisturbed site if the area to be
20 disturbed has no more than 5.0 cumulative acres of new surface disturbance. Additional
21 requirements may apply and the REC may conclude that further analysis is required.

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11 for Utah State University, Department of Fisheries and Wildlife. April.
- 12

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1 7.0 List of Preparers

2 This EA has been prepared by UTARNG to evaluate the potential environmental, cultural, and
 3 socioeconomic consequences of construction of new facilities and other training assets at Camp
 4 Williams near Bluffdale City, Utah. This EA has been prepared in accordance with the NEPA,
 5 Section 102(2)(C); the CEQ *Regulations for Implementing the Procedural Provisions of NEPA* 40 CFR
 6 Parts 1500 through 1508; and *Environmental Analysis of Army Actions*, 32 CFR Part 651 and
 7 ARNG NEPA Handbook 2011. A formal list of preparers, relevant experience, and primary
 8 responsibilities is provided below.

Name	Education and Experience	Primary Responsibilities
Ann Dziechciarz	M.S., Engineering, Purdue University (2004); B.S. Chemical Engineering, Wayne State University (1990); 20+ years' experience in environmental investigation, remediation, and project management.	Project Manager; technical review and quality assurance of the EA.
Aaron Fergusson	M.A., Anthropology, Brigham Young University (2000); B.A., Anthropology, Brigham Young University (1996); Registered Professional Archeologist; 18 years of experience in project management, cultural resource management and National Historic Preservation Act consultation, and NEPA analyses.	Project Planner; cultural resources expert; data collection, analysis, and preparation of EA text.
Robert Price	M.S. Environmental Science; Master of Public Affairs; Indiana University (1994); B.A. Zoology; B.A. History; Miami University (1992); 19 years of experience in NEPA analysis, environmental permitting, ecological surveys, and mitigation design.	Senior technical review and quality assurance of the EA.
George Tangelos	M.S., Geology, University of Wisconsin Madison (2008); B.A., Geology and Biochemistry, Carleton College, (2003); P.G., Utah (2013); 5 years of experience.	Project Geologist/Hydrogeologist; data collection, analysis and preparation of EA text.
Sara Van Klooster	M.S., Atmospheric Science, University of WI-Milwaukee (2005), B.S., Atmospheric Science, University of WI-Milwaukee (2003), 9 years of experience in air emission inventories, air dispersion modeling, meteorological and air pollutant monitoring.	Document Lead, Project Scientist; data collection, analysis and preparation of EA text.
Mark Wilson	B.S., Civil Engineering, University of Utah (2002); P.E., Utah (2006); 14 years of experience in civil and environmental engineering.	Project Engineer; analysis and preparation of EA text.

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1 8.0 Agencies and Individuals Consulted

2 UTARNG contacted the following agencies and groups regarding the project. Copies of agency
3 coordination documentation are provided in Appendix C:

- 4 • Bluffdale City
- 5 • Eagle Mountain City
- 6 • EPA Region 8
- 7 • Lehi City
- 8 • Mountainland Association of Governments
- 9 • Riverton City
- 10 • Saratoga Springs City
- 11 • Transportation Planner, Wasatch Front Regional Council
- 12 • United States Army Corps of Engineers, Utah Regulatory Office
- 13 • United States Fish and Wildlife Service, Region 6
- 14 • Utah County
- 15 • Utah Department of Environmental Quality
- 16 • Utah Department of Natural Resources
- 17 • Utah Department of Transportation
- 18 • Utah Highway Patrol
- 19 • Utah Historical Society
- 20 • Utah Natural Resources Conservation Service

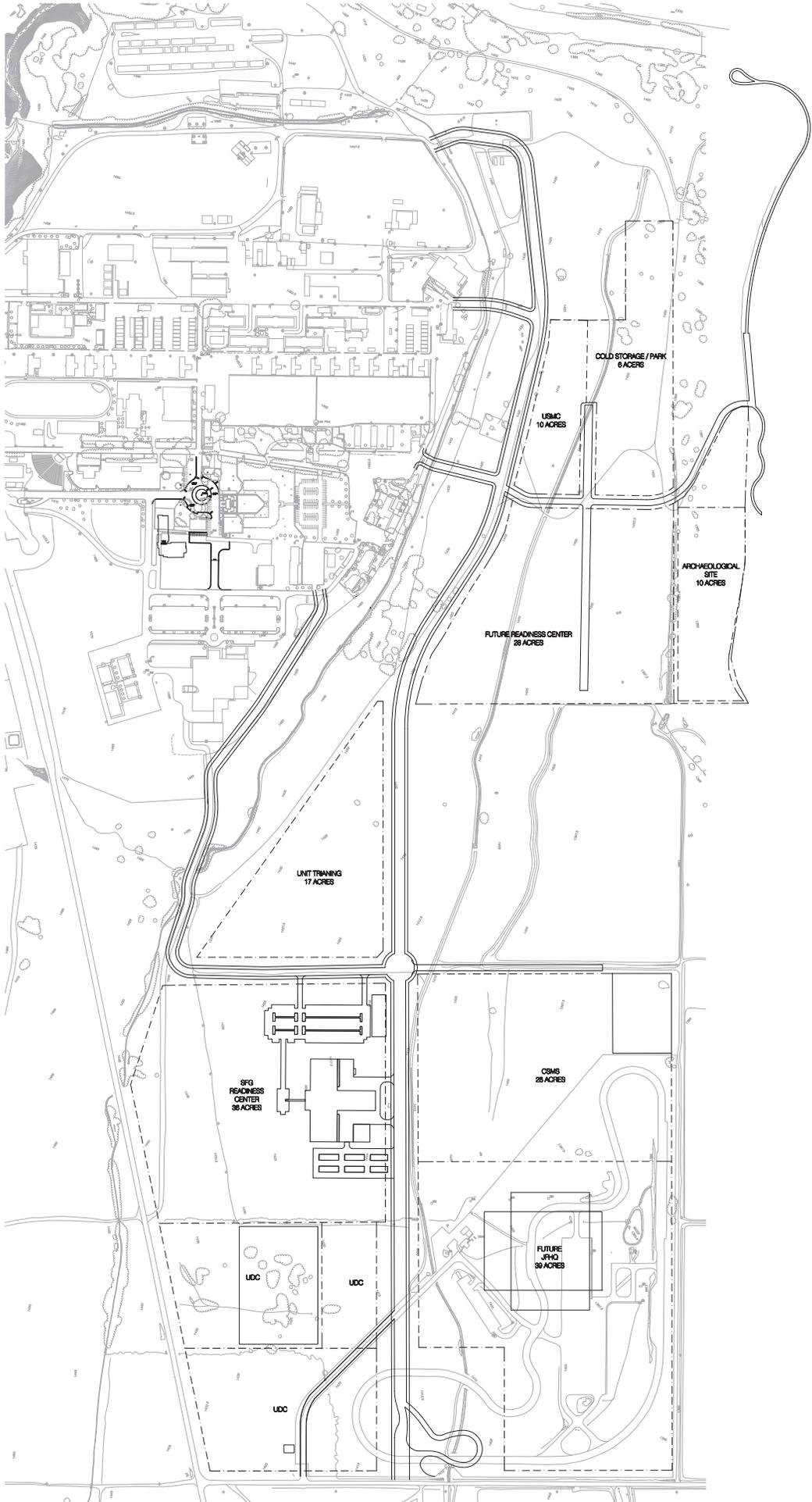
21 UTARNG contacted the following Native American tribal agencies regarding the project.
22 Copies of correspondence with tribal agencies are provided in Appendix D.

- 23 • Ute Indian Tribe
- 24 • Northwestern Band of Shoshone Nation
- 25 • Skull Valley Band of Goshute Indians
- 26 • Confederated Tribe of Goshute Indians

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APPENDIX A

**Proposed Action Conceptual Drawing, Scope of
Construction, and Site Photographs**



1. COMPONENT ARNG	FY 2017 GUARD AND RESERVE MILITARY CONSTRUCTION		2. DATE 25 Sep 13		
3. INSTALLATION AND LOCATION RIVERTON, UT			4. AREA CONSTR COST INDEX 1		
12. RESERVE UNIT DATA					
				<u>STRENGTH</u>	
UIC	UNIT DESIGNATION	TPSN	MTOE/TDA	AUTHORIZED	ACTUAL
WTN6T0	1ST SF BN, 19TH SF GROUP	23101	31815GNG19	92	92
WTN699	(AUG SF BN 01 ABN AUG)	23101	31815GNG19	12	12
WTN6D0	SUPPORT CO, 1ST SF BN, 19TH SF GROUP	23101	31815GNG19	109	109
WTN6B0	CO B 1ST SF BN, 19TH SF GROUP	23101	31815GNG19	88	88
WPAAEA	BN SF GROUP SUPPORT B			714	0
WYLMAA	SUPPORT CO, 19TH SF GRP, 1ST SF RGT	23102	31813GNG19	217	217
WP6GAA	(HHC , SF GPS (ABN))	23100	31812GNG01	97	105
Totals				1,329	623
13. MAJOR EQUIPMENT AND AIRCRAFT					
TYPE		AUTHORIZED	ACTUAL		
Wheeled Vehicles		321	321		
Trailers		232	232		
Tracked Vehicles		13	13		
Equipment > 30 FT(includes HEMTT PLS Trailers)		0	0		
Fuel Truck		0	0		
HET		0	0		
Totals		566	566		
14. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES					
				(\$000)	
Air Pollution				0	
Water Pollution				0	
Safety and Occupational Health				0	

1. COMPONENT ARNG		FY 2017 MILITARY CONSTRUCTION PROJECT DATA			2. DATE 25 Sep 13	
3. INSTALLATION AND LOCATION RIVERTON, UT			4. PROJECT TITLE NATIONAL GUARD READINESS CENTER			
5. PROGRAM ELEMENT 0505896A		6. CATEGORY CODE 17180	7. PROJECT NUMBER 85648 490601		8. PROJECT COST (\$000) 37,000	
9. COST ESTIMATES						
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITIES:			-	-	27899	
Readiness Center		SF	107,365	192.61	(20680)	
Unheated Storage Building		SF	7,521	105.25	(792)	
Controlled Waste Facility		SF	300	113.42	(34)	
Unheated Encl/Shed-TP Vhcl Strg		SF	35,000	118.25	(4139)	
Backup/Emergency Generator		EA	1	175,000.00	(175)	
Rigid Pavement for MEP		SY	9,732	103.86	(1011)	
Additional ATRP		LS	-	-	(534)	
Sustainability / Energy Measures		LS	-	-	(534)	
SUPPORTING FACILITIES:			-	-	5716	
Rigid Concrete Paving		SY	8,189	103.86	(851)	
Flexible Paving		SY	14,000	85.00	(1190)	
Security Fencing		LF	904	38.27	(35)	
Curbing (Rigid)		LF	2,144	45.00	(96)	
Sidewalks		SY	1,790	50.00	(90)	
Wash Platform		LS	-	-	(50)	
Exterior Security Lighting		LS	-	-	(150)	
Loading Ramp		LS	-	-	(60)	
Detached Facility Sign		EA	1	5,000.00	(5)	
Exterior Fire Protection		LS	-	-	(284)	
Utilities: Gas		LS	-	-	(227)	
Utilities: Electric		LS	-	-	(164)	
Utilities: Water		LS	-	-	(227)	
Utilities: Waste Water/Sewer		LS	-	-	(227)	
Stormwater Drainage		LS	-	-	(284)	
Information Systems		LS	-	-	(102)	
Site Improvement		LS	-	-	(1674)	
TOTAL CONSTRUCTION COST			-	-	33615	
Contingencies (5.0%)			-	-	(1681)	
Supervision, Inspection and Overhead (3.0%)			-	-	(1058)	

1. COMPONENT ARNG	FY 2017 MILITARY CONSTRUCTION PROJECT DATA		2. DATE 25 Sep 13																
3. INSTALLATION AND LOCATION RIVERTON, UT																			
4. PROJECT TITLE NATIONAL GUARD READINESS CENTER		5. PROJECT NUMBER 85648 490601																	
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Commissioning (0.6%)</td> <td style="width: 10%; text-align: center;">-</td> <td style="width: 10%; text-align: center;">-</td> <td style="width: 30%; text-align: right;">(167)</td> </tr> <tr> <td>TOTAL PROJECT COST</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: right; border-top: 1px solid black;">36521</td> </tr> <tr> <td>TOTAL PROJECT COST (ROUNDED)</td> <td></td> <td></td> <td style="text-align: right;">37,000</td> </tr> <tr> <td>Equipment Funded Other Appr (Non-Add)</td> <td></td> <td></td> <td style="text-align: right;">(3997)</td> </tr> </table>				Commissioning (0.6%)	-	-	(167)	TOTAL PROJECT COST	-	-	36521	TOTAL PROJECT COST (ROUNDED)			37,000	Equipment Funded Other Appr (Non-Add)			(3997)
Commissioning (0.6%)	-	-	(167)																
TOTAL PROJECT COST	-	-	36521																
TOTAL PROJECT COST (ROUNDED)			37,000																
Equipment Funded Other Appr (Non-Add)			(3997)																
10. DESCRIPTION OF PROPOSED CONSTRUCTION A specially designed National Guard Readiness Center of permanent construction. This facility will be designed to meet Industry Standards as well as all local, State, and Federal building codes and as per Public Law 90-480 and 900-400. Construction will include all utility services, information systems, fire detection and alarm systems, roads, walks, curbs, gutters, storm drainage, parking areas for 478 privately owned vehicles, and site improvements. Facilities will be designed to a minimum like of 50 years and energy efficiencies meeting, on average, American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) 189.1 standards through improved building envelope and integrated building systems performance. Access for individuals with disabilities will be provided. Antiterrorism Measures are to be included in accordance with the DOD Minimum Antiterrorism Standard. This project will comply with the Army 1 SQFT for 1 SQFT disposal policy through the disposal of XXXXX SQFT. This project will include all supporting facilities as per block #9 page 1, on this document. MISSION: Current A/C TONNAGE: 358																			
11. REQUIREMENT: 150,186 SF Adequate: 0 SF Substandard: 0 SF 13,953 m2 0 m2 0 m2																			
1. PROJECT: To construct 160,187 SQFT consisting of a 107,366 SQFT National Guard Readiness Center, 45,000 SQFT Unheated Encl/Vehicle Storage, 7,521 SQFT Unheated Storage Building, and 300 SQFT Controlled Waste Facility that supports training, administrative, and logistical requirements for the UTARNG. This facility will be built on State land. (Current Mission) 2. REQUIREMENT: This facility is designed to meet DA directed MTOE changes for the listed units authorized 528 soldiers, within the transformed force structure of the UTARNG, to address facility shortages and inadequacies as defined in the ISR-I. The facility is required to provide a Readiness Center that will combine units from																			

1. COMPONENT ARNG	FY 2017 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 25 Sep 13
3. INSTALLATION AND LOCATION RIVERTON, UT		
4. PROJECT TITLE NATIONAL GUARD READINESS CENTER		5. PROJECT NUMBER 85648 490601
<p>the 19th Special Forces, Trial Defense Det, and Contracting Team. The existing facilities do not meet current mission or standards. The RC will have a specially designed area for the Unmanned Ariel System (UAS) Section that has been added to the Group Support Company (GSC)/19th Special Forces Group (SFG). This site has the acreage needed to support the MVP/POV parking requirements.</p> <p>3. CURRENT SITUATION: MILCON funding is limited and has not been able to support the transformation of these existing units. These units are currently programmed for growth and fielding as directed by the Army. The need is not being met because they are operating in facilities that were not constructed to meet specific training needs. The current facilities are rated Black in the ISR Assessment and do not meet 2009 building codes and criteria. The following life, health, and safety items have been flagged as non compliant or missing to the point of rendering the building uninhabitable and put Soldiers at an unnecessary risk: no smoke detectors, no CO2 detectors and no fire suppression systems. The lack of administrative space, training areas, classrooms, storage, and MVP areas at their present locations do not meet prescribed requirements. The UAS Section of the GSC/19th SFG is in a RC built in 1973, with only administrative space as well as 3 other units. There is no room for nor is there an available area to house the UAS and its equipment or provide for training areas such as a supply/vault room, operation and pilot preparation areas, or aircraft maintenance/storage areas to support mission readiness. The GSC/19th SFG is co-located in a 24,756 SF RC with the entire 1st BN/19th SFG (A) which is exceeding capacity. This has created a non functional working/training environment where soldiers are setting up shop in the hallways, break areas and vehicle maintenance training bays. If this situation is not corrected with this project, the new GTA and other units will not reach mission readiness for deployments. Through these unit transformations the UTARNG will reorganize into modular formations and create new facilities to meet the operational reserve, rebalance and restructure. With this facility the units would have the tools available to them to meet the demands of the current and future conflicts while sustaining the Soldiers and their families.</p> <p>4. IMPACT IF NOT PROVIDED: The impact of not providing this project will reflect insufficient facility space to train and maintain the level of readiness required by the Army for the newly transformed units. The Army has directed that these new units be manned, equipped, and trained within the ARFORGEN cycle. At the present</p>		

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<p>facility status and current square footage available, it is not possible for the units to meet this goal without MILCON Funding. Their training evaluation scores for the CATS are currently documented as "Untrained" do to the lack of equipment and their current facilities and adequate space. This evaluation will continue with no indication of improvement without the additional facilities. The operational capability and day-to-day function of the organizations will continue to deteriorate without the adequate space for administrative work, training, and storage. Training hours will continue to be wasted by the units continually having to utilize other facilities for training and storage of their equipment will cost an additional \$250k in training dollars. This also increases the risk and cost of training with the added commuting time to retrieve equipment. The non construction of these facilities will prevent the Army from completing the full spectrum of operations, eliminating the ability to provide training support systems.</p> <p>5. ADDITIONAL: Sustainable principles will be integrated into the design, development and construction of the project in accordance with Executive Order 13423, 11988, and 11990 and other applicable laws and Executive Orders. This project complies with the scope and design criteria of National Guard Pamphlet 415-12 dated 01 June 2011.</p> <p>6. PHYSICAL SECURITY: This project has been coordinated with the installation physical security plan, and all physical security measures are included.</p> <p>7. ANTITERRORISM/FORCE PROTECTION: This project has been coordinated with the installation antiterrorism plan. Risk and threat analyses have been performed in accordance with DA Pam 190-51 and TM 5-853-1, respectively. Only protective measures required by UFC 4-010-01 (Department of Defense Minimum Antiterrorism Standards for Buildings) are needed. These requirements are included in the description of construction and cost estimate.</p> <p>8. ECONOMIC ANALYSIS: Alternative methods of meeting this requirement have been explored during project development. This project is the only feasible option to meet the requirement.</p> <p>9. JOINT USE CERTIFICATION: The Deputy Assistant Secretary of the Army (Installations and Housing) certifies that this project has been considered for joint use potential. This facility will be available for use by other components.</p>		

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3. INSTALLATION AND LOCATION RIVERTON, UT
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4. PROJECT TITLE NATIONAL GUARD READINESS CENTER	5. PROJECT NUMBER 85648 490601
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Date	Jefferson Burton MG (UT) The Adjutant General
AT/FP POC: MAJ (UT) SCOTT J. SILL/(801) 432-4939	CFMO: LTC (UT) D. Matt Price/(801) 432-4440

12. SUPPLEMENTAL DATA

a. Estimated design data:

(1) Status:

(a) Date Design Started.....Oct/2014

(b) Percent Complete as of January 2016.....65%

(c) Date Design 35% Complete.....Jun/2015

(d) Date Design Complete.....Sep/2016

(e) Parametric Cost Estimating Used to Develop Cost.....No

(f) Type of Design Contract.....Design - Bid - Build

(g) An energy study and life cycle cost analysis will be documented during final design

(2) Basis:

(a) Standard or Definitive Design.....No

(b) Where Design Was Most Recently Used.....N/A

(3) Total Cost (c)=(a)+(b) or (d)+(e):.....(\$000)

(a) Production of Plans and Specifications.....2017

(b) All Other Design Costs.....1143

(c) Total.....3160

(d) Contract.....3160

(e) In-house.....0

(4) Construction Award.....Oct/2016

(5) Construction Start.....Dec/2016

(6) Construction Completion.....Oct/2018

b. Equipment associated with this project which will be provided from other appropriations:

<u>Equipment Nomenclature</u>	<u>Procuring Appropriation</u>	<u>Fiscal Year Appropriated or Requested</u>	<u>Cost (\$000)</u>
ESS	OMNG	2018	1,074

1. COMPONENT ARNG	FY 2017 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 25 Sep 13
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3. INSTALLATION AND LOCATION RIVERTON, UT
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4. PROJECT TITLE NATIONAL GUARD READINESS CENTER	5. PROJECT NUMBER 85648 490601
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12. SUPPLEMENTAL DATA (CONT)			
ESS (171R)	OPA	2018	50
F F & E	OMNG	2018	1,850
ISC Equipment	OPA	2018	973
Kitchen Equipment (Type C)	OMNG	2018	50
ISCE Equipment (G6 Proponent)	OMNG	2018	0
		Total:	3997
Point of Contact: CFMO UT, 801-432-4448			

1. COMPONENT ARNG	FY 2017 MILITARY CONSTRUCTION PROJECT DATA	2. DATE 25 Sep 13
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Detailed Requirement Statements

1. GENERAL: The GSC/19th SFG is currently housed in 49911-05170, that was constructed in 1973 as a RC for the 1st Bn/19th SFG at Camp Williams (CW). The space is administrative by design and will not meet the mission of the GSC/19th SFG with the addition of the UAS Section. The new Trial Defense team is currently without any space to drill and the unit was stood up in FY 2012. This was an addition to the State.
2. ANALYSIS OF DEFICIENCY: The deficiency of not selecting this project will reflect insufficient facility space to train and maintain the level of readiness required by the Army for the GTA and newly transformed units. The Army has directed that these new units be manned, equipped, and trained within the ARFORGEN cycle. At the present facility status and current square footage available, it is not possible for the units to meet this goal without MILCON Funding. The GTA units are unlike any of the current units in the UTARNG, therefore the RCs in the state will not meet their specific training requirements. The age, condition, and the lack of acreage at the various sites considered will not support the upgrades or justify the expenditure of funds to bring the buildings up to code and meet space criteria of NG PAM 415-12. The GSC/19th SFG with the UAS Section are not in a facility that will support the section level training needs for aircraft maintenance, pilot prep, unit administrative functions, training, and supply operations.
3. ANALYSIS OF CRITERIA AND EXCEPTIONS FOR NEW CONSTRUCTION: The size and capacity is in accordance with NG Pam 415-12, dated 1 June 2011. The workload has been adequately defined. A definitive design is being used for this project because of the unique areas authorized for the assigned units.

Exceptions to Criteria: None
4. STATEMENT OF PROGRAM RELATED EQUIPMENT: Kitchen equipment, FF&E, ESS (CIDS) AA&E Storage, ESS, and ISC (Data & Telcom) will be requested in FY 2018.
5. DISPOSITION OF PRESENT ACCOMMODATIONS: Memorandum requesting Exemption to the Army One SQFT for One SQFT Diposal Policy is submitted with the 1390/91 due to the State of UT having no excess square footage in RPLANS.
6. CONTRIBUTIONS TO READINESS: a. How will readiness be enhanced by the construction of this project?

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4. PROJECT TITLE NATIONAL GUARD READINESS CENTER		5. PROJECT NUMBER 85648 490601
<p>Readiness and safety will be greatly enhanced by providing a Readiness Center (RC) that will have the required areas for training, administration, supply, storage and supporting equipment for UAV Operations and maintenance, to support the Modernization of the GSC/19th SFG. The new areas will be designed and constructed to support their day-to-day operations, IDT training, and maintenance of their MTOE equipment. They will have a RC that is designed and constructed to meet their specific training needs, thus providing well trained and mission ready Soldiers to support Army mission requirements.</p> <p>b. How will readiness be impaired by deferring this project to a future program year? There are critical deficiencies and lack of space in the current buildings housing the units. By deferring this project soldiers lives are put at risk when the proper training and maintenance cannot be performed due to limited space and facilities or wasted training time in commuting between armories and equipment locations. Funding delays place valuable Soldiers, aircraft and equipment at a higher risk of accidents and does not conform to the Army Campaign Plan in an acceptable time frame.</p> <p>c. How and why does this project contribute more to readiness than other projects? This project contributes more to readiness because each unit is a valuable component of Grow the Army which will add more capabilities to the war fighter mission by supporting several units in one project versus two separate projects. Through these unit transformations the UTARNG will reorganize into modular formations and create new facilities to meet the operational reserve, rebalance and restructure. With this facility the units would have the tools available to them to meet the demands of the current and future conflicts while sustaining the Soldiers and their families.</p> <p>7. CLEAN AIR ACT: This project will comply with air permitting and other procedural requirements mandated by State and Federal agencies.</p> <p>8. TELECOMMUNICATIONS: All telecommunications have been planned as per ISCE program/documentation and have been uploaded to Tab F of the DD1391 Processor (PAX).</p> <p>9. ECONOMIC ANALYSIS: Documentation for an Economic Analysis conducted using ECONPAC software has been uploaded into TAB-D in PAX.</p> <p>10. ANTITERRORISM/FORCE PROTECTION: a) A risk analysis for this project</p>		

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<p>has been conducted on [date] and coordinated with the installation AT/FP plan. Risk and threat analyses have been performed in accordance with DA Pam 190-51 and TM 5-853-1, respectively.</p> <p>b) A threat analysis for this project has been conducted on [date] and coordinated with the installation physical security plan.</p> <p>c) The building design is to comply with standard design requirements per UFC 4-010-01 for Antiterrorism/Force Protection measures. All required physical security and antiterrorism/force protection measures are included.</p> <p>d) This project is to be constructed within a Controlled Perimeter.</p> <p>e) This project meets conventional standoff as per UFC 4-010-01.</p> <p>f) This project will be less than three stories of construction.</p>		

Utah National Guard

Utility, Roads and Parking Improvements for Phase 1 and Phase 2

Camp Williams

July 8, 2013

Scope of Work Narrative for Phase 1 30% Design Documents

1. Extend 2nd Avenue to 1st Avenue at Oregon Avenue. Includes asphalt road, curb and gutter, sidewalks.
2. 1st Avenue: Improve and define road to building 9000 including asphalt road, curb and gutter, sidewalks. Add parking areas along this extension.
3. Storm drains for items no. 1 and 2 above to existing catch basin on upper garrison near Oregon Avenue and 1st Avenue and extending to Lower Garrison Ave.
4. Extend Power and telecom from man hole at Utah Ave and 2nd Ave to building 9000.
5. Extend 1st Avenue down to lower garrison as per the enclosed master plan. Includes road base and new asphalt road to just past the curve or steep incline area. Extension of 1st Ave to Lower Garrison road and extension of Lower Garrison Road will be road base and gravel to point where existing highway patrol road intersects the lower Garrison Road. An unmanned gate will be installed and coordinated with the highway patrol gate and control system. Phase I does not include sewer, curb and gutter, sidewalks and any utilities to lower garrison.

The work listed above will include design work to establish utility capacity demands, define location and design concepts for roadways, curb and gutter and sidewalks, utility rights-of-ways to lower garrison utility hub building. Work will include a cost estimate and a proposed schedule for the design build contract to complete the items listed above.

Includes a master plan for future work as two phases, which will be defined by a map, and a narrative of work needed to complete lower garrison infrastructure improvements.

Not included in Phase 1 Scope of Work: Surveys, Geotechnical surveys, Sewer for lower garrison, storm drain and storm water retaining areas for lower garrison, utilities (gas, power, telecom, water, sewer) for lower garrison and new south gate with entry building at Mink Road. Does not include sewer extension to Lehi City's sewer system. Phase 1 does not include environmental impact studies or archeological / historical surveys for lower garrison. Not included is RFP development for future phases. Not included are construction documents to bid phase 1 at a future date.

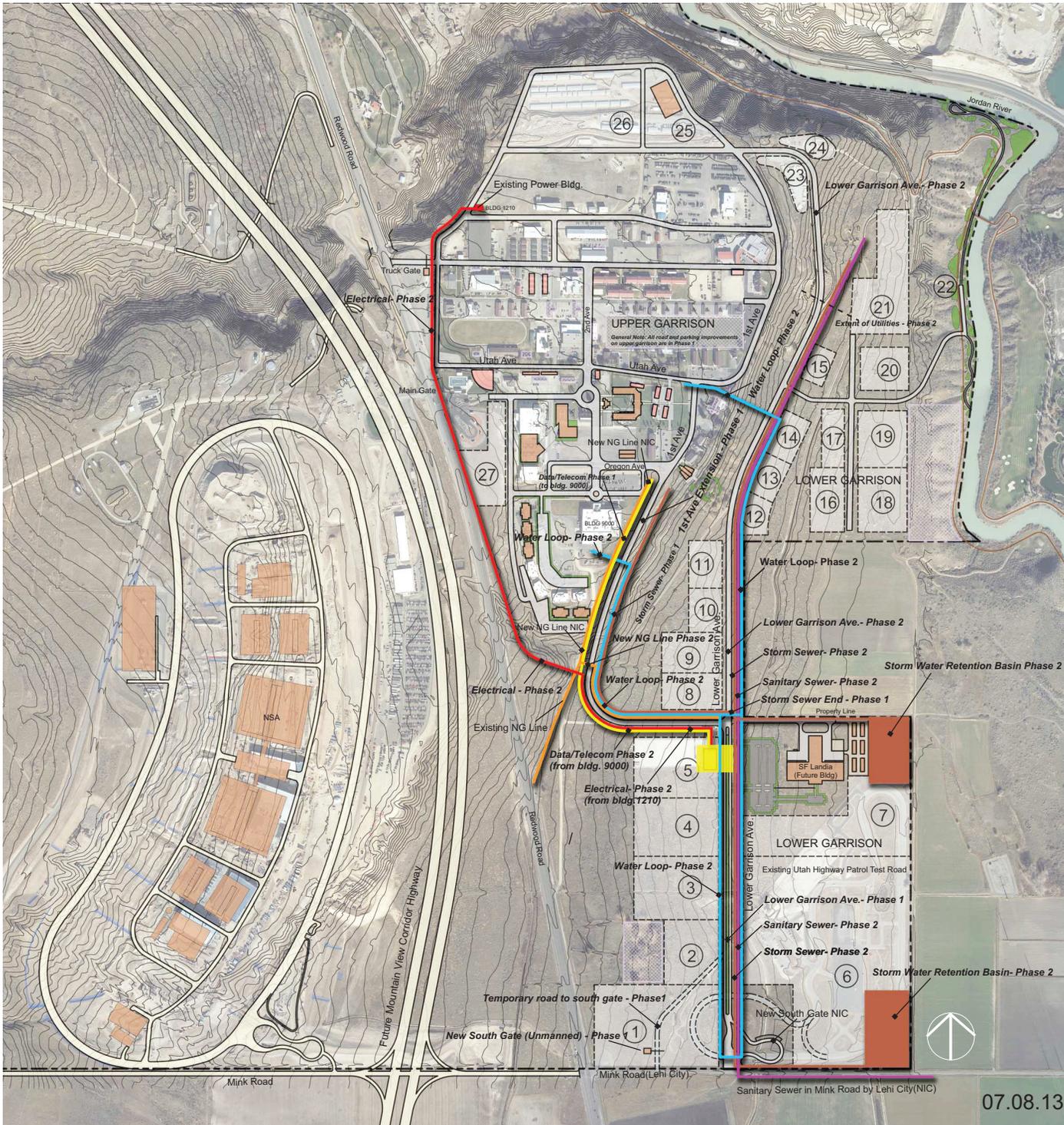
Scope of Work Narrative for Phase 2 Design Build Project:

(Items below refer to attached Utility Master Plan)

1. Electrical Power from Bldg 1210 on Upper Garrison via west property line near Redwood Road to Utility Hub on Lower Garrison. Design and coordinate for future power needs on Lower Garrison.
2. Connect to existing Natural Gas line and extend new Gas line to Utility Hub on Lower Garrison.
3. Establish Storm Sewer lines and Storm Retention Areas as per enclosed Utility Master Plan.
4. Establish Sanitary Sewer to Mink Road. Note: Extension of down Mink Road will be done by Lehi City and will be coordinated by DFCM/UNG.
5. Extend Data/Telecom from Bldg. 9000 on Upper Garrison to Utility Hub on Lower Garrison. Coordinate capacities with UNG.
6. Design Only: Lower Garrison Road to Upper Garrison on north end as per attached Utility Master Plan.
7. Complete 10 inch Water Line loop from Upper Garrison via Lower Garrison and back to Upper Garrison as per attached Utility Master Plan.

Items to be provided by DFCM/Utah National Guard:

1. Complete ALTA Survey and Lidar Survey of all impacted areas in Phase 1 and 2.
2. Geotechnical Survey and Report of impacted areas in Phase 1 and 2.
3. Environmental Impact Study for Phase 1 and 2
4. Archeological and Historical Surveys/Studies for Phase 1 and 2.
5. Coordination with Utah Highway Patrol for access and changes to Road Test Area.
6. Existing flow and design capacities for all existing Utilities that will extend to the Lower Garrison.
7. Existing Utility Site Plans and Locations.
8. Coordination and extension of Lehi City Sewer system in Mink Road.
9. Enclosure of all existing Canals.



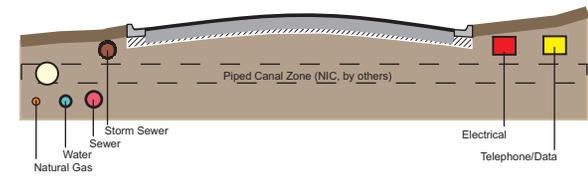
UTILITY MASTER PLAN

UTILITY, ROADS AND PARKING INFRASTRUCTURE IMPROVEMENTS PHASE 1 & PHASE 2

Camp Williams, Utah

Monday, July 8th, 2013

EFT ARCHITECTS INC.
MASTER PLANNERS



Proposed Road Profile with Utility Zones
NTS - Concept Sketch

Map Key

- Data and Telecom
- Power
- Natural Gas
- Water
- Sanitary Sewer
- Storm Sewer/Retention

General Note: All road and parking improvements on upper garrison are in Phase 1



Photo 1. View from NW corner of property to SE.



Photo 2. View from SW corner of property to N.



Photo 3. View across property to SE.



Photo 4. View of historical trail to N, cantonment area in background



Photo 5. View west across property, SH 68 in background.



Photo 6. View east across property, mounding in foreground, driving course in background.



CAMP WILLIAMS LONG RANGE MASTER PLAN

UTAH ARMY NATIONAL GUARD

DECEMBER 20, 2012

EFT
ARCHITECTS INC.
■ ■ ■

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This master plan will address and answer the following question:

“How does the Army ensure that its installations are prepared to meet immediate mission requirements and also sustain the long-term installation military capabilities and adaptability for future, unforeseen military needs?” Lt. Gen. Carl A. Strock.

This master plan was conducted during 2011 and 2012 focusing on the garrison at Camp Williams, Utah. The goal of this master plan is to research and discover viable ideas and possible solutions to these questions that will aid General Staff and others in future decisions for the UTNG.

Goal: Develop an effective, orderly long-range development plan that is concurrent with the Strategic Vision of the UTARNG which also supports existing and future missions, and promotes an effective and obtainable direction for sustainable planning and development.

Objective I:

- a) Develop a set of planning principles that guide comprehensive holistic planning for the UTARNG and its installations.
- b) Use area development planning to create more effective, orderly and obtainable future development.
- c) Ensure installation development is access-friendly and secure.

Goal Document comprehensive procedures for translating mission plans to policies, programs and specific projects for statewide facilities, and systems.

Objective II:

- a) Promote packaging of focused mission plans and programs into area development planning proposals that can be mapped to the RPMP as well as supporting other installation and unit initiatives.

- b) Ensure real property requirements are documented in the Capital Investment Strategy and the Tabulation of Existing Requirements.
- c) Ensure future military training needs are met through focused planning of range and training land areas.

Goal: Create a framework coherently integrating multiple components of real property master planning with other installation and statewide planning processes.

Objective III:

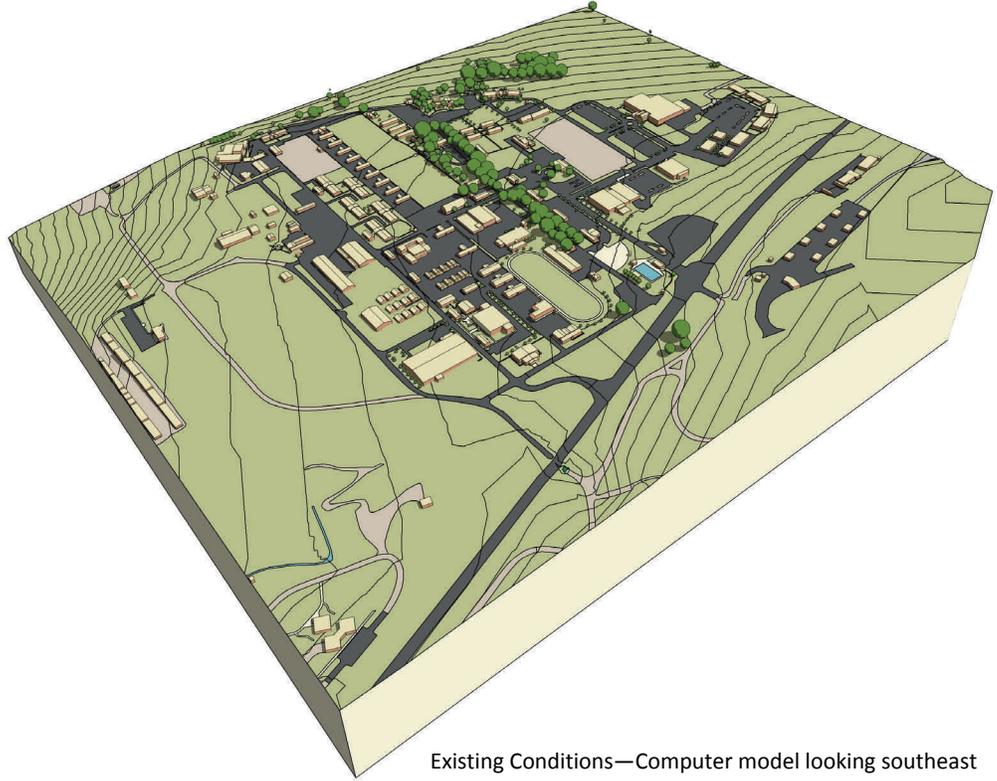
- a) Promote compatible land use development near training areas and facilities in a manner that will limit restrictions imposed on UTARNG operations while protecting and enhancing surrounding communities.
- b) Ensure wise protection, use and management of resources within the natural and manmade environments.
- c) Promote an efficient traffic flow pattern between related land uses.
- d) Enhance visual and aesthetic resources.
- e) Collate or consolidate activities that are functionally related in an effort to improve operational efficiency.
- f) Provide the basis for developing a capital investment strategy, including guidelines for the siting of facilities.
- g) Provide the highest quality working community relationship and environment for the UTARNG and its soldiers.

This document will be a living and growing document that will be reviewed yearly at the Long Range Construction Plan meeting. It will also be reviewed as requirements, missions, and units change and grow. All assistance in getting the base of this document correct is appreciated and will benefit units now and all soldiers in the future.



Existing Conditions—Aerial Map of Camp Williams

This master plan will focus only on the Army Garrison area and some minor areas near the Garrison. The Garrison is divided into an upper Garrison and a lower Garrison. Note: The NSA is currently constructing a Data Center in the area indicated.



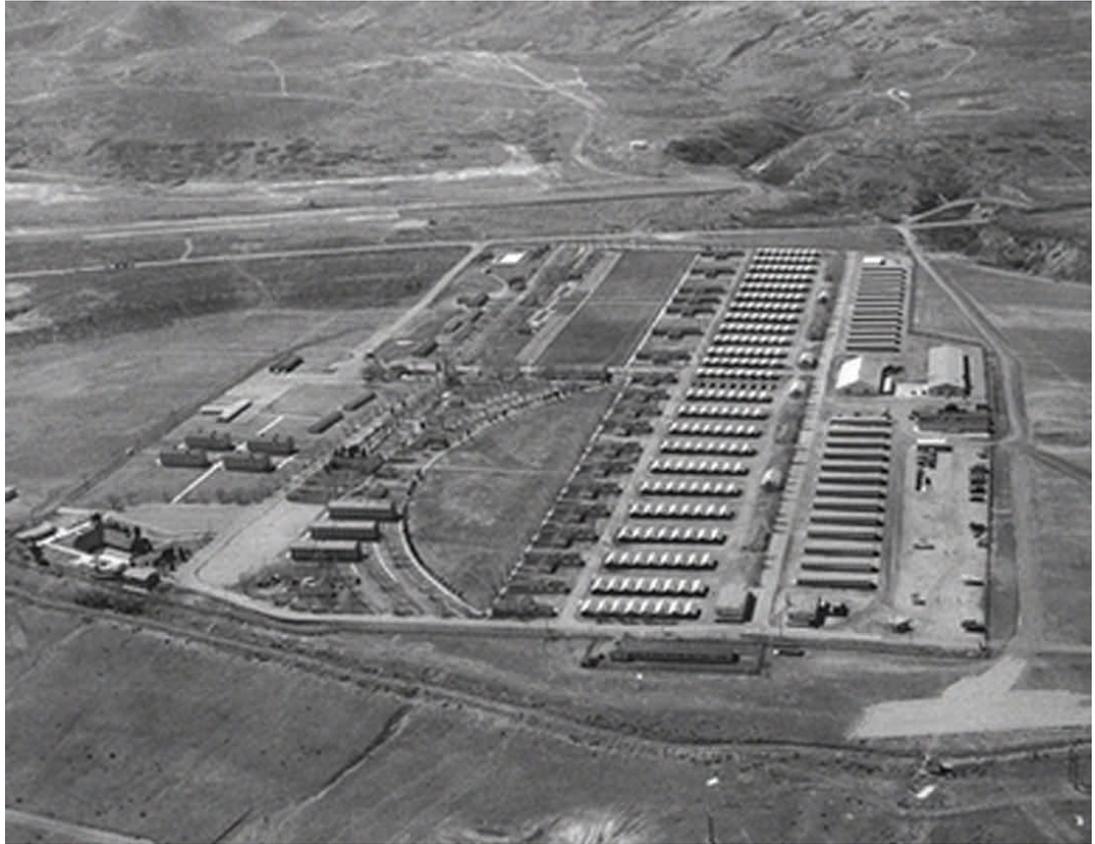
Existing Conditions—Computer model looking southeast

Activities:

1. Define areas of growth
2. Define areas that need improvement
3. Develop sequences of improvement
4. Address security concerns
5. Energy improvements
6. Define new circulation pathways
7. Define future design criteria
8. Develop a schedule for improvements
9. Produce a master plan document

Study Methodology:

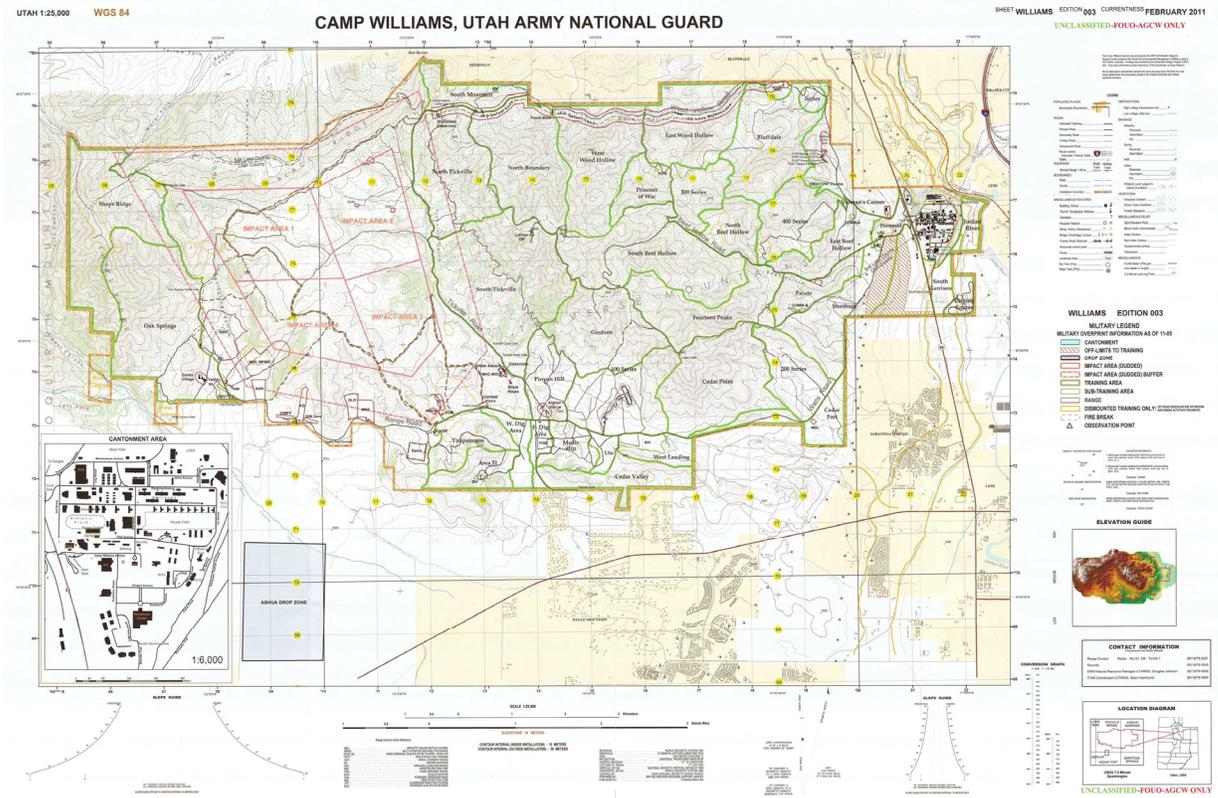
Meetings were held with CFMO staff and the leadership of Camp Williams to discuss areas of growth, areas in poor condition and long term goals. The camp was visited and conditions were documented with photographs and research of existing conditions. Documents were prepared that developed future improvements and growth areas along with land use areas. These documents included aerial photographs and drawings of existing and future use and improvements at the camp. Aerial photographs and computer drawings were merged into one image to improve graphical readability. These documents were presented using a workshop methodology allowing for feedback, consensus building and approval of the various options until a final document was produced.



CAMP WILLIAMS CIRCA 1950

History

The Utah Army National Guard has its origin from the Nauvoo Legion formed in 1840 under a charter by the Illinois legislature. The Nauvoo Legion moved to Utah with the migration of the Mormons in 1847. In 1887 the Nauvoo Legion was dissolved by Congress over conflicts with the Mormons in the Utah Territory. In 1894 the Utah Army National Guard was created. In times of crisis the Utah National Guard was called into federal services: 1898 the Spanish-American War, in 1903 and 1904 the UNG was used to control a miners' strike in Carbon County, 1917 World War I, 1941 World War II, the Korean War. Camp Williams was created as a permanent training camp in 1927 at its current location. The Camp contains 18,700 acres of land which are used for artillery training, engineering, weather training, field medical evacuation training and other related training missions.



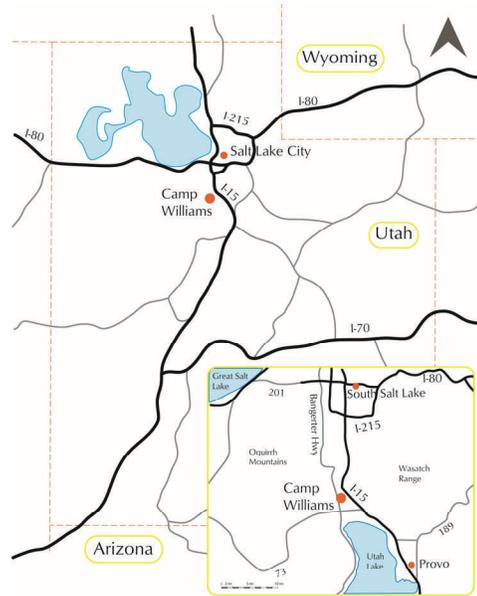
Existing Conditions

Camp Williams is located 28 miles south of downtown Salt Lake City on 17800 South Camp Williams Road in Riverton, Utah 84066. The overall site is 18,700 acres with the Garrison located on the east side of the site adjacent to State Road 68 also referred to as "Redwood Road". Surrounding Camp Williams are the following cities; Herriman and Bluffdale to the north, Lehi and Saratoga Springs to the east, and Eagle Mountain to the South. These cities are growing rapidly with largely residential land use that is expanding closely to the Camp. Land features of the site are the Jordan River on the east boundary and the Oquirrh Mountains on the west boundary. The Garrison is located above the Jordan River on a relatively flat foothill bluff that is about 200 feet above the river. The balance of the Camp is referred to as the "Range" which is located in a mountainous foothill area of the Oquirrh Mountains, please refer to map above.



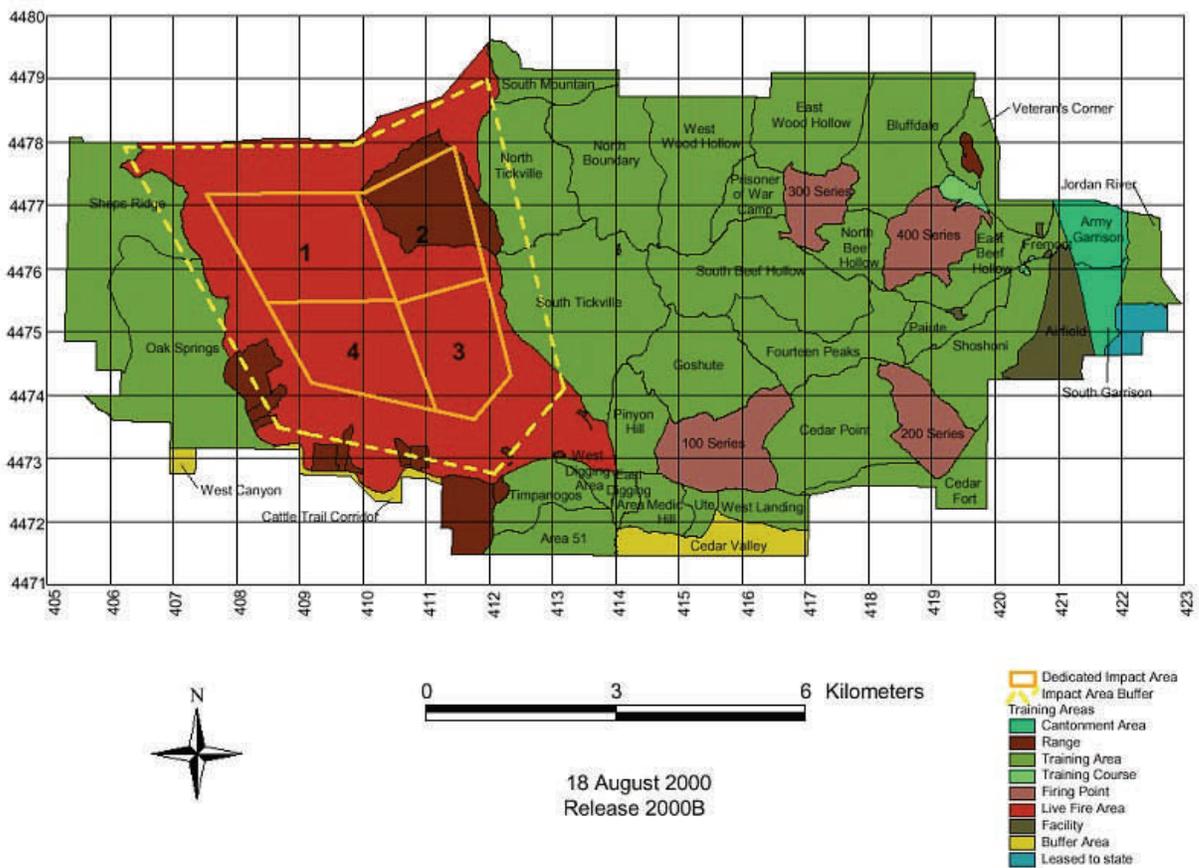
Looking west from the Garrison towards the Range at Mink Road

The land use at Camp Williams is in large part for the support of Army training activities. The map below illustrates the various land use/training area functions at the camp. The vicinity map on the right indicates the location of Camp Williams within the State of Utah and a close-up insert map locating the camp within the Salt Lake City/ Provo area.



Camp Williams Vicinity Map

Camp W. G. Williams Training Areas





Looking west along Utah Avenue from 2nd Street

Existing Conditions-Upper Garrison

The Upper Garrison contains training facilities for the most part. There are armories, TASS facilities, readiness centers, billeting, mess halls, maintenance facilities, dry storage, equipment storage, staging areas for tactical training, limited MWR areas and a small marine training area. The Upper Garrison contains two windmills, an open irrigation canal, a large parade ground and an open athletic field area with a running track. Currently there are two gates into the Upper Garrison, the ACP which is the main gate and a special truck gate located north of the ACP. Both of these gates access Redwood Road. Additionally, there is one access gate to the Range which is an underpass under Redwood Road. The Upper Garrison is divided into north-south roads called “Streets” and east-west roads referred to as “Avenues”. The Streets are numbered and the Avenues are named after western states. The main entry street is Camp Williams Avenue with Utah Avenue, Nevada Avenue, Wyoming Avenue, 2nd Street and 1st Street providing secondary access.

The northern third of the Upper Garrison is basically used for maintenance, camp support systems, dry storage areas and equipment/vehicle storage

and service areas. The balance of the Upper Garrison is used primarily for training, armories, readiness centers, mess halls and billeting.

Conditions in some areas at the Garrison are less than ideal. Roads are not clearly defined in some areas creating complex circulation pathways especially in the north half of the Garrison. Buildings in the north section are in poor condition except for facilities recently constructed. There are several new facilities around the TASS Complex that are well constructed and designed. Roadways and parking areas are well defined in the areas near the TASS Complex and the Readiness Center, but in other areas there is little or no definition of where roads and parking start and stop. In all areas of the Garrison pedestrian circulation is inconsistent with clearly defined walkways. Walkways are either intermittent or nonexistent.

Utah Avenue has good examples of elements that work on the Garrison. Mature trees line most of Utah Avenue as in the picture above. For the most part buildings are set back from the street giving a cohesive and orderly look to the area.



Aerial Photo (March 2012) —North Upper Garrison



Looking west from the debris dump



Looking east along Jacob Canal—North Upper Garrison

Existing Conditions - North Upper Garrison Area

This section of the Garrison is in poor condition. Within this area are open storage areas for equipment and vehicles, a fuel station, an open canal (Jacob Canal), dry storage and a debris dump. The Jacob Canal flows west to east and is an irrigation canal used for agriculture beyond the camp. The dry storage area is about 15 feet below the canal, the debris dump is also in this area below the canal. In this area roads are generally poorly defined, no secure access is provided, the dump needs to be managed and the Jacob Canal is a dangerous condition with flood potential areas below it towards the dry storage. One attribute from this end of the Garrison is that there is a clear line of sight to Salt Lake City and to Provo.



Panoramic Photo looking north from Lower Garrison



Aerial Photo (march 2012) —Lower Garrison



Panoramic Photo looking south at Lower Garrison

Existing Conditions-Lower Garrison Area.

The Lower Garrison is undeveloped except for the Utah Highway Patrol Driving Range. The land for the driving range is temporarily leased to the State of Utah by the UTARNG, the lease will expire in 2013 and the property will be returned to the UTARNG. The majority of the Lower Garrison site is native vegetation and is approximately 200 feet below the upper Garrison. The aerial photograph on the left details some of the existing features of the Lower Garrison. A steep sloped area is highlighted in transparent yellow. The area is most likely undevelopable without excessive cost. The light blue transparent color highlights a wetlands area. The balance of the site slopes from west to east toward the Jordan River. Running north to south is an open canal referred to as the “Farm Canal” and is indicated in a blue line.



Panoramic Photo looking east from the main gate, the “first view of the Garrison

Planning Considerations

This master plan will focus on the Garrison at Camp Williams, addressing general design guidelines for future development activities. The time period addressed will be from 2012 to 2035 in 5-year development phases. The first task is to produce land use development zones that will continue over the next 20 years.

Land Use Development Zones

Eight development zones will be established:

1. Administration
2. Storage/Equipment
3. MWR
4. Camp Support
5. Training
6. Tenants
7. Historical/Archeological
8. Tactical Training

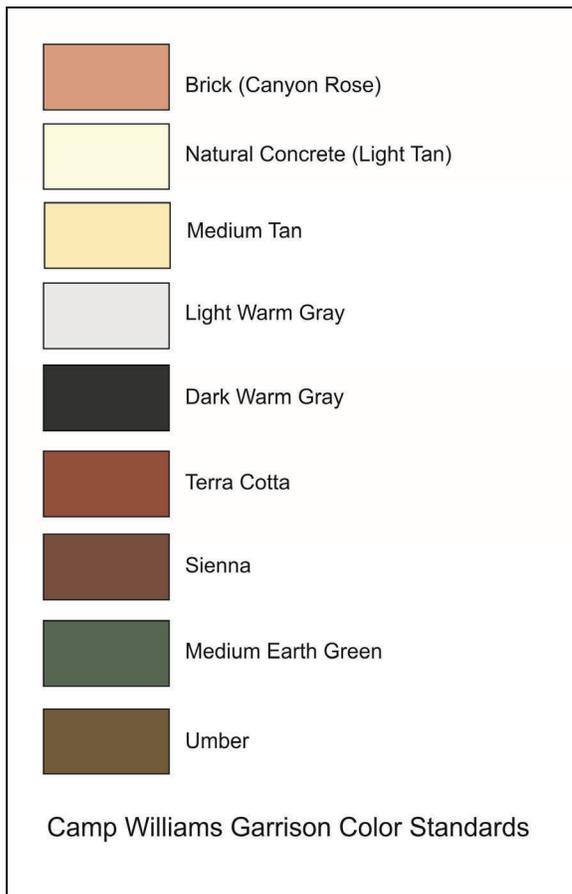
These land use development zones were established based on current and future uses at Camp Williams. Land use zones consolidate similar functions improving circulation and infrastructure thus creating improved efficiency and functionality. Land use zones also establish a process for logical controlled growth for future improvements.

Four additional zones/areas will be used to define Master Plan related actions:

1. Future Facilities
2. Future Land Purchases
3. To be Demolished
4. Piped Canals.

“Make the Plan, Follow the Plan”

The master plan is only as effective as how seriously it is followed for future development at Camp Williams. In the past, development at the Garrison was not based on long range land use goals. Instead development happened on an as-needed basis on whatever site was convenient or available and a rough idea of grouping similar functions. The resulting land use is a complex set of facilities that are not efficiently linked and grouped in a logical manner. This results in wasted land use, poor circulation, difficulty in planning future growth and a lack of cohesion as an Army Garrison. To improve land use, there needs to be a long range master plan. The long range plan needs to be followed. Essential to this process is the need for regular updates and improvements to the master plan. At a minimum, the master plan needs to be worked and updated every five years to respond to changes and new growth patterns.



Architectural Design Considerations:

Colors and Materials

Currently there are several types of materials and colors used on the exterior of facilities at the Garrison. There are prefabricated metal buildings, stucco, brick, cultured stone, wood siding, cast stone accents and aluminum siding. The color range is tan, blue, off white, natural concrete trim, terra cotta, reddish orange, gray, dark brown, cultured stone, a dark red brick and a pale rose brick.

This many variations of finishes and colors need to be better controlled, giving the Garrison a more cohesive appearance and simplifying maintenance and future construction. The following materials and colors are recommended for future expansions at the Garrison (please refer to Camp Williams Color Standards on the left):

Major Multistory Buildings – Brick (Canyon Rose) with Natural Concrete trim and accents. Similar to the Readiness Center and TASS Buildings.

Secondary Buildings – Brick to match Brick (Canyon Rose) with Dark Warm Grey roofs and Light Tan or Light Warm Gray trim and accents.

Utility Buildings – Metal buildings Medium Tan or Brick (Canyon Rose) with terra cotta or sienna trim.

Site Furniture and Accessories – Dark warm gray or sienna.

Garrison Signage- Medium Earth Green background with White letters, use Helvetica medium typography and international symbols. All traffic standard to conform to UDOT standards.

Accents such as canopies, trim, doors, etc.– Terra Cotta, Sienna, Umber or Dark Warm Gray.

Building Signage– a contrasting color to the main field of color where the sign will be placed, Medium Earth Green, if possible, or White.

Architectural Guidelines

Future buildings will need to be multi-storied to make better use of the limited site space available on the Garrison. Single story buildings with sloped roofs should be avoided. Buildings will all need to follow the current National Guard design standards. Buildings for general human use should be constructed from steel with a masonry veneer. The maximum height of buildings should be four stories. Prefabricated metal buildings and tilt-up concrete buildings should only be used for cold storage or other utility use and not for general human occupancy. Stucco, aluminum siding and wood finishes should be avoided. There needs to be a long term effort to convert all buildings that do not meet this design criteria regarding metal buildings, stucco, aluminum siding and wood. Stone exterior treatment should be only for special facilities such as the Officers' Club, the NCO Club, Sunrise Hall, etc. Stone finishes should not be cultured type stone, use a product like Arriscraft calcium silicate stone instead (either smooth or broken faced Sedona, Wheat or Sage color).

Mechanical, Electrical and Utility Equipment

All mechanical, electrical and utility equipment must be designed as part of the architecture. Roof top equipment should be avoided due to high energy cost and maintenance. All mechanical equipment must be enclosed in an architectural element that is part of the overall facility design. Equipment and utility fixtures such as garbage cans, cooling towers and service areas should be screened with an architectural screen that is part of the overall architecture of the facility.

Energy, Co-Generation, Wind and Solar harvesting

During the future development of the Garrison, highly efficient and effective energy use needs to be part of all design approaches. Energy uses that should be continued and enhanced are wind and solar harvesting. Additionally, the Garrison should consider, in future master planning, co-generation study options and the use of geothermal wells as heat exchangers. All future facilities should achieve a silver LEED certification. Water conservation and related water tolerant landscaping design standards should be developed in future Master Plans.

Civil Design

Future master plan studies should investigate road profile standards for the Garrison. A Master Plan for water runoff control and reuse as gray water should also be completed. All roadways should be striped with UDOT approved designs. Parking should be striped with white paint. Pedestrian sidewalks need to be part of every future project as per the road profile standards. A long term improvement project should be initiated to complete sidewalks on the existing Garrison.

Historical Considerations

Camp Williams offers a rich history which needs to be recognized at the Garrison. This master plan will address a future walking tour on the upper Garrison along with a future visitor center. Additionally, there are several archeological sites on the Garrison and the historically important Jordan River Narrows area. These historical attributes need to be recognized and utilized to add depth and character to the Garrison.



Looking east along Utah Avenue at historic rock ditch

Landscape Design Considerations:

General Site, Landscape and Sustainability Design Principles

The following general site, landscape and sustainability principles should be applied to the outdoor environment at Camp Williams:

Utilize landscape treatments that are sustainable and which conserve resources.

Design the site to receive credit for water efficient landscaping that reduces water use by 50% as part of achieving LEED certification. Important concepts to help achieve this goal include the following:

- Limiting the use of lawn and turf;
- Utilizing alternative turf types that require less water;
- Maximizing surface areas that require little or no supplementary irrigation;
- Applying “water-wise” and drought-tolerant planting treatments;
- Utilizing native and adapted plant species that require little supplementary water;
- Applying regionally-appropriate planting and irrigation techniques;
- Coordinating landscape maintenance and irrigation with existing routines and standards; and
- Including water monitoring systems as part of the landscape design and maintenance routine.

Reduce solar heat gain and the Urban Heat Island Effect through the generous use of shade trees.

Integrate and enhance parking areas through the use of appropriate landscaping approaches and the generous use of trees.

Ensure compliance with the Americans with Disabilities Act(ADA) regulations and other health, safety, and welfare requirements.

Provide vehicle barrier methods (boulders) in the landscape adjacent to parking areas to meet AFTP requirements.

Keep turf areas and associated spray irrigation 6 feet from the building edges.

Landscape Design Guidelines:

Landscape Treatments

Building Perimeter and Surrounding Areas:

These areas will be designed to meet the LEED SS Credit 5.1 Site Development – Protect or Restore Habitat. This requires the use of native plants. A balanced mix of evergreen and deciduous trees and shrubs should be provided. Landscape treatments around the south, east and north edges of the new building should be defined through the use of deciduous trees. This will help to provide adequate shade against hot summer sun while allowing the warm rays of winter sun to reach the building and other use areas once the leaves have fallen. On the north side of the building evergreen trees should be used in conjunction with deciduous trees, helping to mitigate the impact of cold winter winds.

Shade trees should be used along the roadways and parking areas. This will not only provide shade, but also help delineate the surrounding spaces and help lead traffic to the buildings.

The landscape areas associated with new buildings should be designed with not only water-wise plants but also the use of water-conserving irrigation methods. The surrounding landscape should include a mix of water-wise shrubs and ornamental grasses to complete the landscape. A series of informal boulders will line the road and edges of the parking zones, serving as a security barrier.

Smaller Trees can be used near multistory buildings helping to reduce the massing scale of new buildings while providing visual access to views above the first floor.

Plant Palette

The plants in the list on the right are currently growing at Camp Williams and appear to be doing well. Additional plants may be considered for future projects if they meet hardiness and drought tolerance criteria. Consideration should be given to specific microclimatic conditions (sun, shade, solar aspect, etc), the size and growth habit of species at maturity, the overall landscape design concept, and special environmental conditions. Plants considered in the habitat restoration areas will be native or a cultivar of a native species to meet the LEED requirements.

MASTER PLAN LANDSCAPE PLAN PLANT PALETTE

BOTANICAL NAME

COMMON NAME

Trees

Acer species	Maple species
Fraxinus species	Ash species
Gleditsia tricanthos	Honeylocust
Juniperus species	Juniper tree species
Picea species	Spruce species
Pinus nigra	Austrian Pine
Syringa species	Lilac Tree
Tilia species	Linden species
Ulmus species	Siberian Elm

Shrubs

Artemisia tridentata wyomingensis	Wyoming Big Sage
Caragana sp.	Peashrub
Chrysothamnus nauseosus	Rubber Rabbitbrush
Cowania mexicana	Cliff Rose
Cotoneaster divaricata	Spreading Cotoneaster
Mohonia aquifolium compacta	Compact Oregon Grape
Pinus mugo mugo	Dwarf Mugo Pine
Prunus besseyi	Western Sandy Cherry

Ornamental Grasses

Ornamental grasses can be located primarily near building entrances and developed as landscape accent areas.

Perennials and Bulbs

Perennials and bulbs can be located primarily near building entrances. Perennials and bulbs can be used as designed accent areas in public spaces and at entries.

Vines and Groundcovers

Vines and groundcovers should be included in future landscape designs to provide green low maintenance areas as design accent areas at entries, in public spaces and as transitions to other planting beds.

Landscape Design Phases

New Construction

All new construction should follow the guidelines on the previous pages for landscape design and plant materials. New plant materials can be introduced but only as prescribed in the previous pages.

Street Trees

During Phase A (2012– 2017) street trees need to be planted along all existing major roadways and in parking areas. The shade trees listed on the previous page need to replace any existing trees that are diseased or that do not meet the criteria of this guideline. A licensed landscape architect needs to be consulted to finalize a planting and irrigation schedule. Special care and consideration is needed for snow removal and the location of shade trees in parking areas.

As the Lower Garrison is developed over the next 25 years the guidelines of this study need to be followed. As soon as major road ways are constructed shade trees and irrigation systems need to be developed.

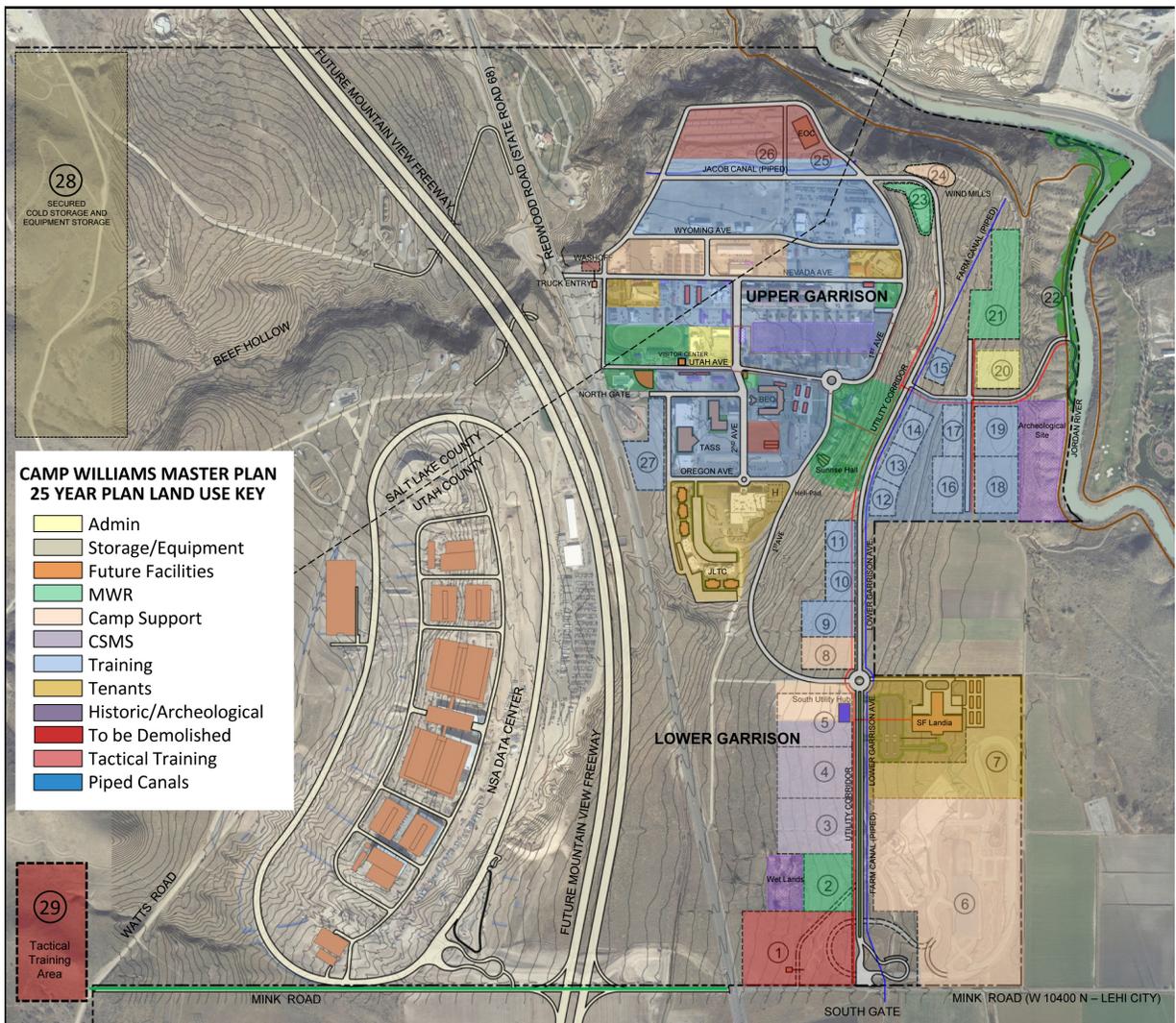
Boulevards: Special planting design should be developed along main entry roads. These roads include 2nd Ave, Camp Williams Ave. and Lower Garrison Ave. Boulevard road profiles need to be designed and improved with shade trees along the street sides and a 5'-0" wide center planter divider. These planters can also contain ornamental grasses, perennials and bulbs. Boulevards are both ceremonial entries and traffic controllers to welcome, direct and let the viewer become aware of the importance of the Garrison. Boulevards should be designed and developed during Phases A and B (2012-2023).



Planning Recommendations

The Master Plan

This section of the study includes labeled master plans in four phases in five year increments. Phased items are labeled on the master plan with a blue hexagon symbol that corresponds to a matrix for each phase. The matrix describes the item, a time frame for action, a priority ranking and notes. These plans were last updated on 8/30/12. Color coding indicates land use areas that are keyed to a legend on each master plan phase.



Urgent Action Items

During the master planning workshops, several items were discovered that are urgent in nature. These items are listed here in descending order of urgency:

1. Mink Road Extension to Watts Road– Rough Grade Within 4 Months (by Feb 2012)
2. Mountain View Freeway –Off Ramps and Bridges – Coordinate- Now
3. Utility Corridor on Lower Garrison – Initiate Process Now
4. Consolidate and Organize Cold Storage – within 6 months
5. Move Cold Storage and Equipment Storage onto Range – Site 28
6. Begin Enforcing Development Zones - Now
7. Pipe Canals – Jacob and Farm – Start Process Now.
8. Utah Highway Patrol Notification - Now
9. Shift Entire Camp/Range into SL County – Start Discussions
10. Ground Work/ Infrastructure for SF Landia (Site 7) – Within 1 Year
11. Establish Tactical Training Area Site 29 within 6 Months.
12. Coordinate with State Government to Co-locate the State’s Emergency Services Facility on the Upper Garrison. The Existing Facility will be Impacted by the Mountain View Freeway (Site 25).



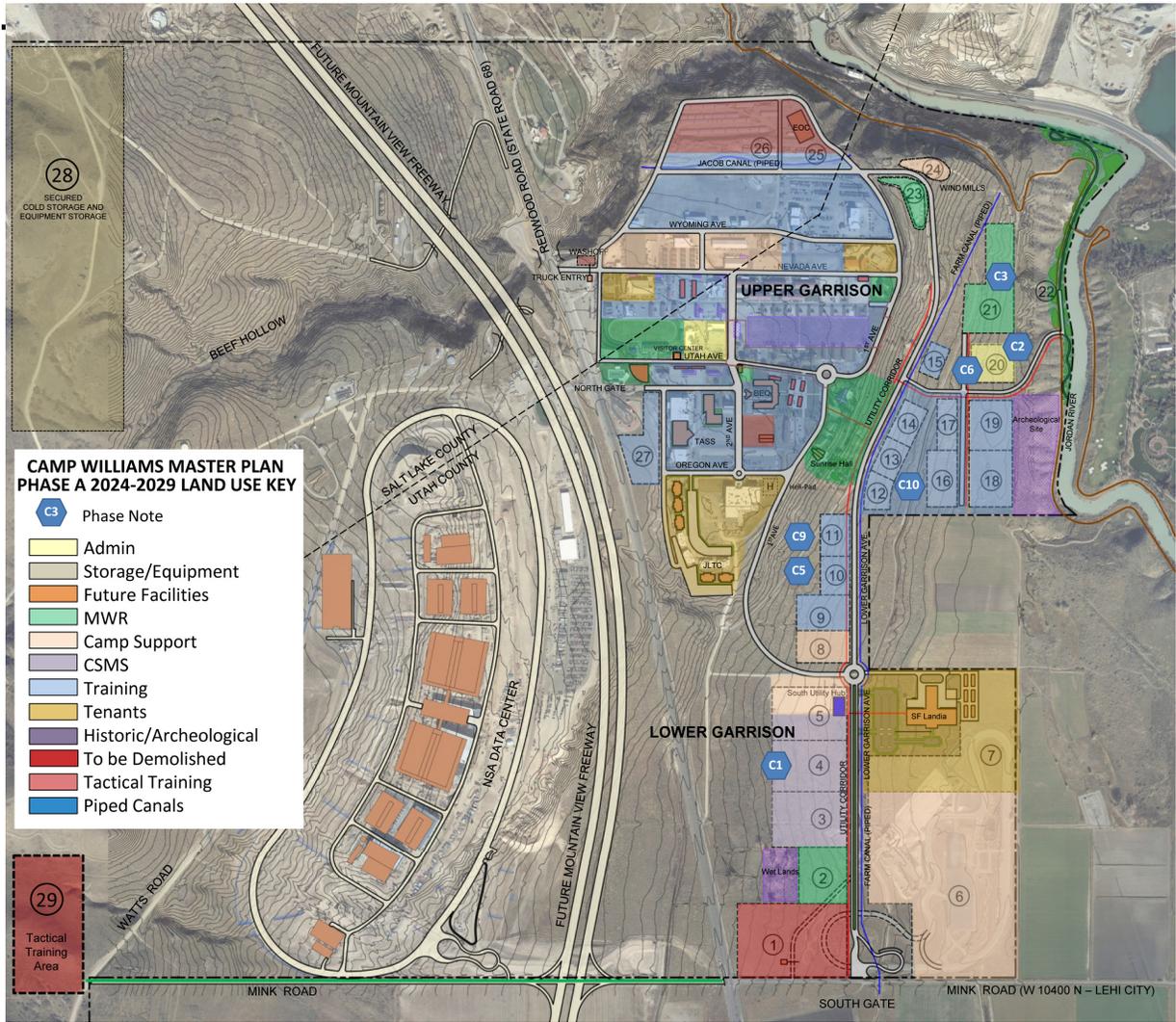
PHASE A 2012-2017

ITEM	TIME FRAME	PRIORITY
1. Extend Mink Road to Watts Road	May 2012 to Aug 2012	High
2. Clean Up Junk Yard at North end of Camp	By Oct 2012	Med
3. Coordinate Bridges and Off Ramps for Mountain View Freeway	By Nov 2012	High
4. Regrade and Level 1 Environmental of Junk site	By Dec 2012	Med
5. Enclose Jacob Canal	By April 2013	Med
6. Develop Wash off area for Range Use	By June 2013	High
7. Establish Utility Corridor on Lower Garrison	By July 2013	High
8. Establish Utility Hub Facility on site 5	By Oct 2013	High
9. Enclose Farm Canal	By Nov 2013	High
10. Begin Negotiations with SL County for inclusion of entire Site.	By Oct 2013	High
11. Level one Survey of South Garrison	By Nov 2014	High
12. Improve truck gate with straight link to Nevada Ave	By Dec 2013	Low
13. Select (predesign) and finalize sites 28 and 29	By April 2014	High
14. Funding for sites 28 and 29	By May 2014	High
15. Survey and Design 1st Ave to the Lower Garrison	By Aug 2014	Med
16. Funding for 1st Ave extension to Lower Garrison	By March 2015	High
17. Build extension of 1st Ave to Lower Garrison	Aug 2015 to Aug 2016	Med
18. Finish Design Start Construction on SF Landia	By March 2015	Med
19. Design and Build Heli-Pad	Begin in March 2015	High
20. Move Highway Patrol off Lower Garrison	By Sept 2015	High
21. Build sites 28 and 29	April 2016 to Nov 2016	Med
22. Survey and Predesign for JLTG Sites/West Access Road	By May 2016	Med
23. Survey and Design Site 1	By May 2016	Med
24. Funding for Site 1	April 2016 to Sept 2016	Med
25. Establish Historic walking path	May 15, 2016	Low
26. Design and Survey Visitor Center	July 1, 2016	Low
27. Finalize inclusion of Camp Williams into SL County	By Nov 2016	High
28. Move all cold storage and Equipment Storage to Site 28	By Nov 2016	Med
29. Finish SF Landia Construction	By Nov 2016	Med
30. Begin Construction for Site 1	By July 2017	Low
31. Update Camp Williams Master Plan	By Nov 2017	High
32. Survey and Design all of South Garrison Ave	By Aug 2017	High
33. Grade, Improve and Level 1 Environmental of Sites 25 & 26	May 2017 to Nov 2017	High
34. Funding for Lower Garrison Ave	By Nov 2017	High
35. Develop Street Trees and Boulevards, Replace Diseased Trees	By May 2017	Med



**PHASE B
2018-2023**

ITEM	TIME FRAME	PRIORITY
1 Improve JLTC Site/West Access Road	By March 2018	Med
2 Build Lower Garrison Ave and new Lower Garrison South Gate	May 2018 to July 2018	High
3 Funding for Visitor Center, Finish Site 1	Aug 2018	Low
4 Purchase Sites 13 through 20	March 2018 to Dec 2018	High
5 Extend Lower Garrison Utility Corridor to all sites	March 2018 to March 2019	Med
6 Survey and Design Site 9	May 2018 to Aug 2018	Med
7 Funding for Facility on Site 9	March 2019	High
8 Survey and Design of new North Gate	May 2019	Low
9 Funding for new North Gate	Dec 2019	Low
10 Survey and predesign for Sites 27	March 2020	Med
11 Build Visitor Center	May 2020	Low
12 Build Facility and land improvements for Site 9	June 2020	High
13 Survey and predesign for MWR sites 21 and 22	June 2020	Med
14 Funding for Sites 21 and 22	Nov 2020	Med
15 Improvements and access to Site 22	May 2021	Med
16 Survey and predesign for Site 6	May to Aug 2021	Low
17 Funding for Site 6	March 2021	Low
18 Improvements and access to Site 27	Aug 2021	Med
19 Improvements for Site 6	May 2022	Med
20 Update Camp Williams Master Plan	Nov 2022	High
21 Development and Improvements to Site 22	Nov 2022	Med
22 Survey and predesign for Sites 2,3,4 and 5	Nov 2022	Low
23 Funding for Sites 2,3,4 and 5	March 2023	Low
L Develop Street Trees and Boulevards, Replace Diseased Trees	By May 2023	Med



PHASE C 2024-2029

ITEM	TIME FRAME	PRIORITY
1 Improvements to Sites 2, 3, 4 and 5	May 2024	Med
2 Survey and predesign for Site 20	March 2025	Med
3 Design and Development of Site 21	Nov 2025	High
4 Funding for Site 20	Nov 2025	Med
5 Survey and predesign for Site 10, 11 and 12	May 2026	Med
6 Construction and Development of Site 20	June 2026	Med
7 Funding for Site 10, 11 and 12	Aug 2026	Med
8 Update Camp Williams Master Plan	Nov 2027	High
9 Improvements to Sites 10, 11 and 12	July 2028	Med
10 Predesign and Survey of Sites 13 through 18	Nov 2029	High



**PHASE D
2030-2035**

ITEM	TIME FRAME	PRIORITY
1 Development and infrastructure for Site 13 through 28	May 2031	High
2 Update Camp Williams Master Plan	Nov 2032	High
3 Development and infrastructure for Site 13 through 18	May 2035	High
4 Development and infrastructure for Site 8	May 2035	High

APPENDIX B

**Notice of Availability and Press Release for the
Environmental Assessment**

February 28, 2016

NOTICE OF AVAILABILITY

ENVIRONMENTAL ASSESSMENT AND DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR THE LOWER GARRISON DEVELOPMENT AT CAMP WILLIAMS UTAH NATIONAL GUARD

Description. Interested parties are hereby notified that the Utah Army National Guard (UTARNG) has prepared an Environmental Assessment (EA) and draft Finding of No Significant Impact (FNSI) regarding the proposed action described below.

Statutory Authority. This notice is being issued to all interested parties in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations for implementing the procedural provisions of the National Environmental Policy Act (40 CFR 1500-1508) and the Environmental Analysis of Army Actions (32 CFR 651).

Proposed Action. The UTARNG proposes to construct a Special Forces Group (SFG) Readiness Center and associated road and utility infrastructure at Camp Williams near Bluffdale City, Utah. The EA evaluated the potential environmental impacts associated with the construction and operation of the new SFG Readiness Center and support facilities.

The Proposed Action would provide an approximate 107,366-SF SFG Readiness Center, 45,000-SF enclosed vehicle storage building, 7,521-SF storage building, and 300-SF controlled waste facility to support training, administrative, and logistical requirements. Additional support facilities include approximately 8,189 square yards (SY) of rigid concrete pavement, 14,000 SY of flexible pavement, and 1,790 SY of concrete sidewalk. Construction would include all utility services, information systems, fire detection and alarm systems, roads, sidewalks, curbs, gutters, storm drainage, parking areas for 478 privately owned vehicles, and site improvements.

By implementing the Proposed Action, UTARNG would provide the training and support facilities necessary to ensure long-term viability and sustainability, by providing assets necessary to meet its readiness, recruiting, retention, and training objectives. Additionally, the Proposed Action would provide supporting infrastructure for both the SFG Readiness Center and anticipated future development in the Lower Garrison of Camp Williams.

Public Review. The EA and the draft FNSI will undergo a 30-day public comment period from March 1, 2016 through April 4, 2016 in accordance with 32 CFR Part 651.14, Environmental Analysis of Army Actions. During this period the public may submit comments on the EA and the draft FNSI. The EA and draft FNSI can be accessed online at <http://www.ut.ngb.army.mil/html/default.aspx> or at the following address:

Salt Lake City Public Library 210 East 400 South Salt Lake City, UT 84111	Phone: 801-524-8200	Hours: Monday – Thursday 9:00 am – 9:00 pm Friday – Saturday 9:00 am – 6:00 pm Sunday 1:00 pm – 5:00 pm
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Comments. Comments on the EA and the draft FNSI should be submitted during the 30-day comment period via postal mail, fax, or email to: Mr. Robert Price, Environmental Program Manager, Utah National Guard, 12953 S. Minuteman Drive Draper, UT 84020 Phone: (801) 432-4454, FAX: (801) 432-4741, Email: robert.price51.nfg@mail.mil

APPENDIX C

Correspondence with Federal, State,
and Local Agencies



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

UTAH NATIONAL GUARD

12953 MINUTEMAN DRIVE
DRAPER, UTAH 84020-9286
(801) 432-4400

Environmental Resources Management

December 10, 2015

Subject: Proposed Lower Garrison Development, Camp Williams Utah Army National Guard

Agency
Addressee
Address
Salt Lake City, UT xxxxx

Dear Addressee:

The Utah Army National Guard (UTARNG) identified you as a potential stakeholder in a January 21, 2014 scoping letter sent to you for an Environmental Assessment (EA) for the Lower Garrison Development Master Plan. The purpose of this letter is to advise you of changes in the proposed action and provide you with another opportunity to comment or otherwise participate.

The UTARNG is continuing/or is still in the process of preparing an EA to evaluate potential physical, environmental, cultural, and socioeconomic effects associated with the Proposed Action pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S. Code § 4321 et seq.), the Council on Environmental Quality (CEQ) Regulations (40 Code of Federal Regulations (CFR) Parts 1500-1508), and 32 CFR Part 651.

The UTARNG Camp Williams Lower Garrison Development Master Plan identified 13 long-term projects in a 291 acre area. This section of Camp Williams is located in Utah County, Utah, near Bluffdale City on a site bounded by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north.

The UTARNG revised proposed action is now limited to actions programmed for the near term:

- a. Construction and use of supporting road systems and utility infrastructure
- b. Construction and use of a Special Forces Group (SFG) Readiness Center

The proposed SFG Readiness Center project will be located on approximately 35 acres with an estimated disturbance of 10 acres. The proposed road and utility infrastructure upgrades comprise approximately 8 acres of new disturbance. These actions were previously identified components of the Lower Garrison Development Master Plan and addressed in the 2014 scoping letter.

Page 2

Subject: Proposed Lower Garrison Development, Camp Williams Utah Army National Guard

A revised Figure 1-1 identifying the current proposed action is provided in Enclosure 1, along with the previous extent of the proposed action in Figure 1-2. Agencies contacted are provided in Enclosure 2.

Should you have any questions or comments regarding the draft EA and National Environmental Policy Act process, please send them via e-mail to Mr. Robert Price, UTARNG Environmental Manager, at Robert.price51.nfg@mail.mil, or contact me by telephone at (801) 432-4454.

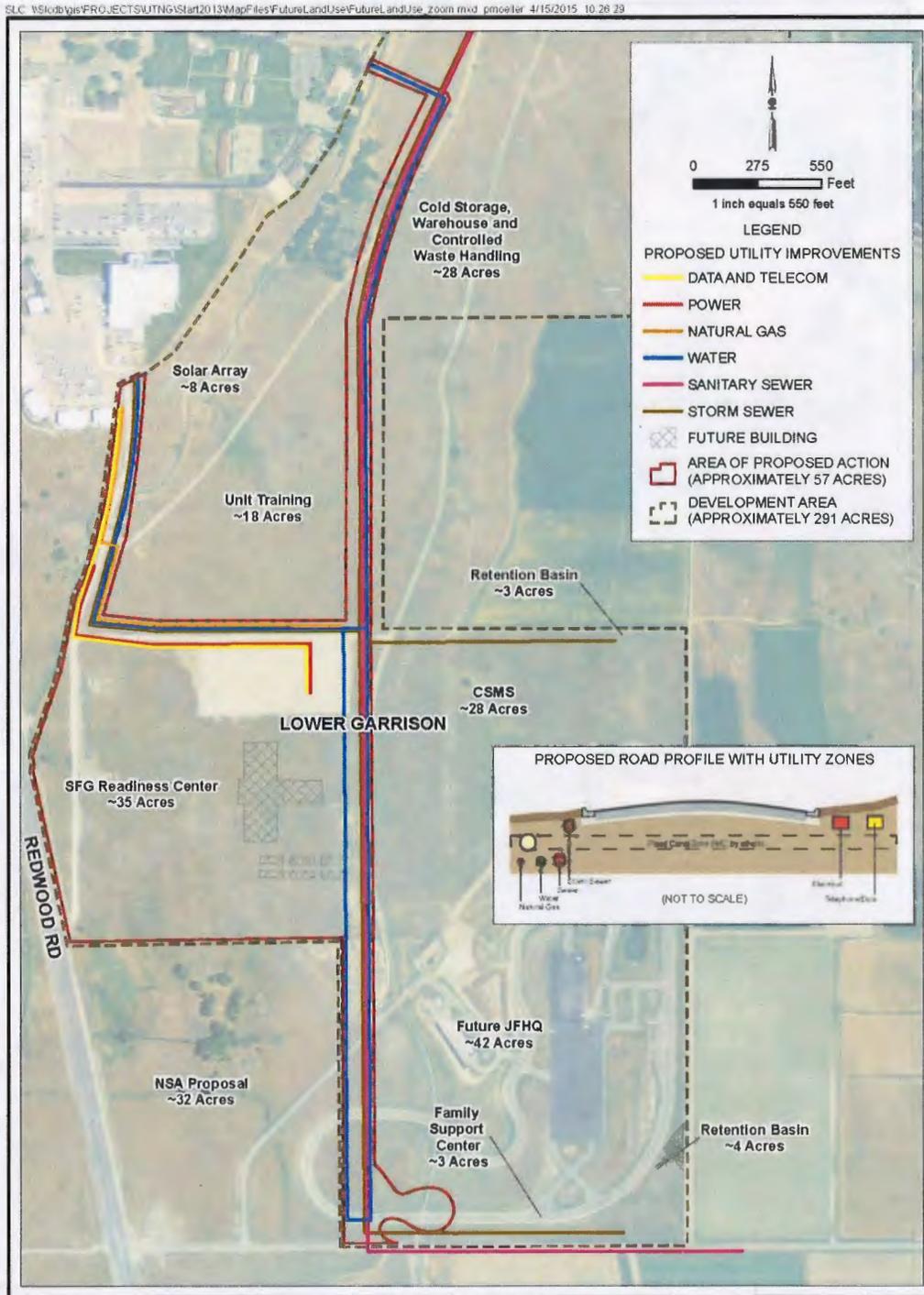
Sincerely,

Mr. Robert K. Price, P.E.
Environmental Program Manager

Enclosure 1: Revised figure of proposed action

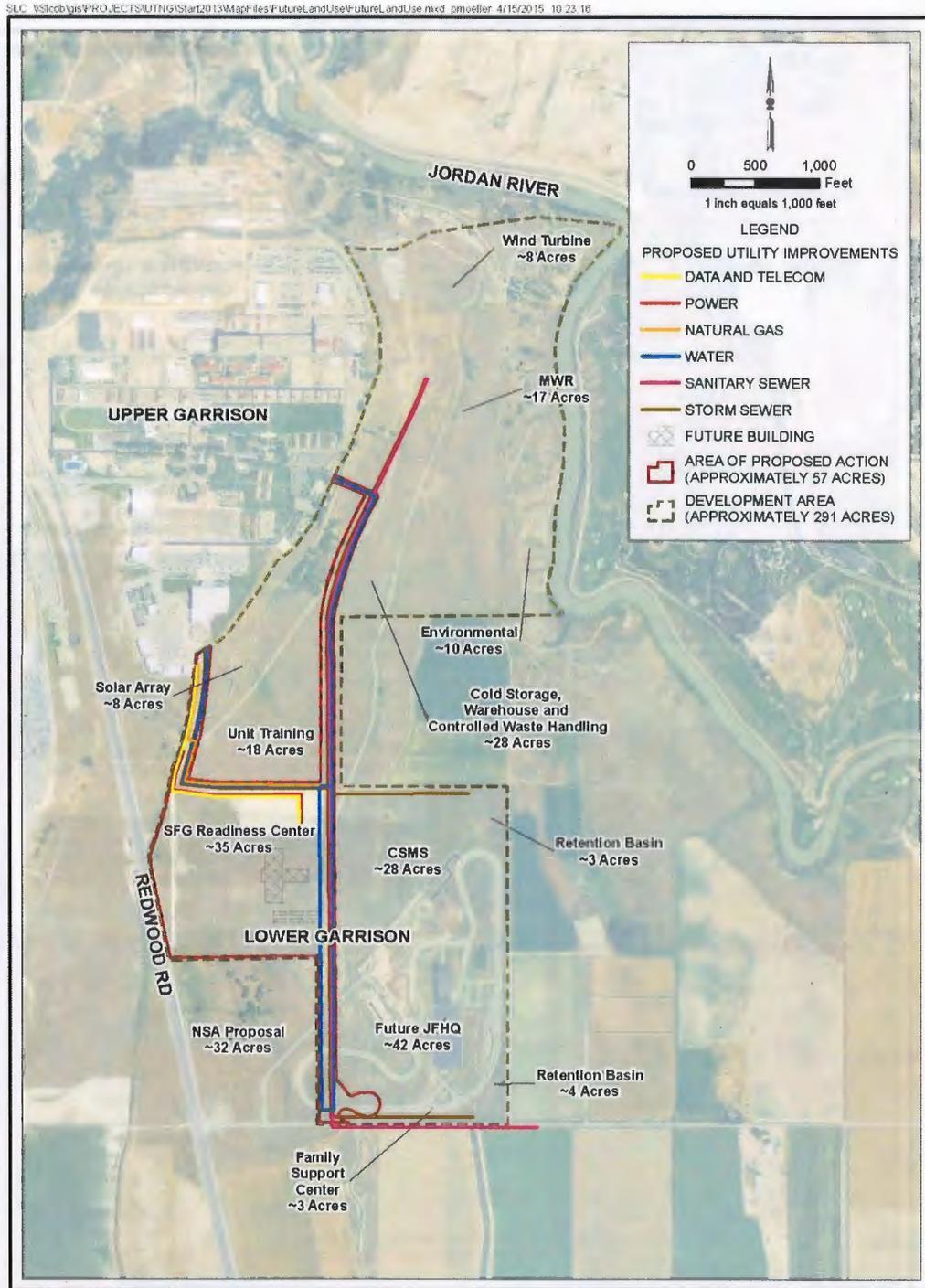
Enclosure 2: List of contacted agencies

1 **FIGURE 1-1**
 2 **Proposed Action Location**



3

1 **FIGURE 1-2**
 2 **Lower Garrison Development Location**



3

Enclosure 2: List of gencies contacted.

Proposed Lower Garrison Development, Camp Williams Utah Army National Guard

Amanda Smith, Department of Environmental Quality

Bob Allen, Community Planner, Mountainland Association of Governments

Bryce Armstrong, Associate Director, Utah County

Cindy Cody, USEPA Region 8

Colonel Daniel Fuhr, Superintendent Utah Highway Patrol

Bridget Fahey, USFWS Region 6

Doug Meldrum, Lehi City Hall

Gordan Haight, Assistant Planning Director, Utah County

Grant Crowell, Community Development Director, Bluffdale City

Jason Gipson, U.S. Army Corps of Engineers, Utah Regulatory Office

Jason Lethbridge, City of Riverton, UT

Kimber Gabryszak, Planning Director, Saratoga Springs

Mark Reid, City Planner, Bluffdale City

Mike Syler, Department of Natural Resources

Scott Festin, Transportation Planner, Wasatch Front Regional Council

Shane Marshall, Utah Department of Transportation

Steve Mumford, Planning Director, Eagle Mountain City

Sylvia Gillen, Wallace F. Bennett Federal Building



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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Environmental Resources Management

January 17, 2014

Department of Environmental Quality

ATTN: Ms. Amanda Smith

195 North 1950 West

P.O. Box 144810

Salt Lake City, UT 84114-4810

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms Smith:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

This letter is not a request for consultation. Any consultation that may be required as a result of the proposed project would be handled separately. Your office will be provided with a copy of the EA upon its completion for further review and comment if requested. For any specific questions about the EA process or additional details regarding the proposed project, please contact Robert Price at (801) 432-4454 or Robert.price51.nfg@mail.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Price". The signature is stylized with a large, sweeping initial "R" and a long, horizontal tail.

Robert Price
Environmental Manager

Attachment:
Lower Garrison Development Master Plan – Proposed Action Location



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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Environmental Resources Management

January 17, 2014

Mountainland Association of Governments

ATTN: Mr. Bob Allen
586 East 800 North
Orem, UT 84097

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Allen:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Sincerely,

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Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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Environmental Resources Management

January 30, 2014

USFWS Region 6

ATTN: Ms. Bridget Fahey

134 Union Boulevard, Ste. 650

Lakewood, CO 80228

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Fahey:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Sincerely,

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Robert Price
Environmental Manager

Attachment:
Lower Garrison Development Master Plan – Proposed Action Location



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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Environmental Resources Management

January 27, 2014

Associate Director
ATTN: Mr. Bryce Armstrong
51 S. University Ave., Suite 117
Provo, UT 84601

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Armstrong:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Robert Price
Environmental Manager

Attachment:
Lower Garrison Development Master Plan – Proposed Action Location



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Environmental Resources Management

January 17, 2014

USEPA, Region 8
ATTN: Ms. Cindy Cody
999 18th Street, Suite 500
Denver, CO 80202-2466

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Cody:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Robert Price
Environmental Manager

Attachment:
Lower Garrison Development Master Plan – Proposed Action Location



Gary R. Herbert
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Environmental Resources Management

January 22, 2014

Superintendent Utah Highway Patrol
Colonel Daniel Fuhr
Calvin Rampton Building
First Floor-South; 4501 South 2700
Salt Lake City, UT 84114

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Colonel Fuhr:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
Governor
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Environmental Resources Management

January 17, 2014

Economic Development Director
ATTN: Mr. Doug Meldrum
Lehi City Hall
153 North 100 East
Lehi, UT 84043

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Meldrum:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
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Environmental Resources Management

January 17, 2014

Assistant City Manager
ATTN: Mr. Gordon Haight
13011 South Pioneer Street
Herriman, UT 84096

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Haight:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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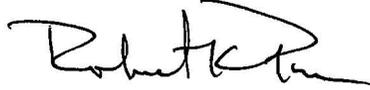
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Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
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State of Utah

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Environmental Resources Management

January 17, 2014

City Planner/Economic Development Director
ATTN: Mr. Grant Crowell
14175 South Redwood Road
Bluffdale, UT 84065

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Crowell:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

UTAH NATIONAL GUARD

12953 MINUTEMAN DRIVE
DRAPER, UTAH 84020-9286
(801) 432-4400

Environmental Resources Management

January 17, 2014

U.S. Army Corps of Engineers
ATTN: Mr. Jason Gipson
Utah Regulatory Office
533 West 2600 South, Suite 150
Bountiful, UT 84010-7744

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Gipson

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Environmental Manager

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Environmental Resources Management

January 17, 2014

City of Riverton Planning Manager
ATTN: Mr. Jason Lethbridge
12830 South Redwood Road
Riverton, UT 84065

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Lethbridge:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Environmental Resources Management

January 17, 2014

Planning Director

ATTN: Ms. Kimber Gabryszak
1307 N. Commerce Drive, Suite 200
Saratoga Springs, UT 84045

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Gabryszak:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Environmental Resources Management

January 17, 2014

City Manager
ATTN: Mr. Mark Reid
14350 South 2200 West
Bluffdale, UT 84065

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Reid:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Environmental Resources Management

January 17, 2014

Utah Department of Natural Resources
ATTN: Mr. Mike Styler
1594 West North Temple, Suite 3710
Salt Lake City, UT 84114-5610

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Styler:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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Environmental Resources Management

January 17, 2014

Wasatch Front Regional Council
ATTN: Mr. Scott Festin
295 N. Jimmy Doolittle Road
Salt Lake City, UT 84116

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Festin:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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Environmental Resources Management

January 17, 2014

UDOT Deputy Director
ATTN: Mr. Shane Marshall
Utah Department of Transportation
PO Box 141250

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Marshall:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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Environmental Resources Management

January 17, 2014

Eagle Mountain Planning Director
ATTN: Mr. Steve Mumford
1650 East Stagecoach Run
Eagle Mountain, UT 84005

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Mumford:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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Environmental Resources Management

January 17, 2014

USDA-NRCS

ATTN: Ms. Sylvia Gillen
Wallace F. Bennett Federal Building
125 South State Street, Room 4402
Salt Lake City, UT 84138-1100

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Gillen

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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Environmental Resources Management

January 17, 2014

Utah State Historical Society
ATTN: Mr. Wilson Martin
300 Rio Grande
Salt Lake City, UT 84101

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Martin:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

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Environmental Resources Management

January 28, 2014

Ms. Lori Hunsaker
Deputy State Historic Preservation Officer
State Historic Preservation Office
300 South Rio Grande St.
Salt Lake City, UT 84101-1182

SUBJECT: Camp Williams Lower Garrison Development Master Plan, Utah County, Utah. Section 106 and U.C.A. 9-8-404 (Cultural) Compliance. Finding of **No Adverse Effect.**

Dear Ms. Hunsaker:

The Utah National Guard (UTNG) is preparing an environmental assessment for the proposed Lower Garrison Development Master Plan. The UTNG sent a scoping letter to your office dated January 21, 2014, to solicit comments or concerns the Utah State Historic Preservation Office may have regarding development in the Lower Garrison area. This letter is intended to provide your office with additional National Historic Preservation Act (NHPA) information regarding any historic or archaeological resources which may be eligible for the State or National Registers, and to afford the State Historic Preservation Office an opportunity to comment on the undertaking and its effects, as outlined in Section 106 of the NHPA of 1966, as amended, and its implementing regulation, 36 CFR Part 800.

The Lower Garrison Development area of potential effects (APE) consists of a 291-acre parcel bounded by the Jordan River to the east, the existing Camp Williams Cantonment Area and Redwood Road to the west, the Beef Hollow drainage to the north, and Lehi's 2600 North Street to the south. Future projects identified for construction within the Lower Garrison area include readiness centers, unit training facilities, cold storage structures and utility infrastructure.

The project area is located in portions of Sections 26 and 35, Township 4 S., Range 1 W. A total of 14 archaeological sites are present within the project area, and are summarized in Table 1. The project APE is contained entirely within the following previously inventoried project areas:

- U-90-NP-0219: An Archaeological Inventory of a Section of the Camp Williams Military Base, Utah County, Utah (Nielson 1990). A total of five archaeological sites were reported as a result of this investigation, four of which are located within the current project APE to include 42UT703, 42UT704, 42UT705 and 42UT706. Site 42UT703 includes features and artifacts associated with an early 20th century farmstead. The site was determined ineligible for listing on the National Register of Historic Places (NRHP), and was partially destroyed during construction of the Utah Department of Public Safety Driving Range in the early-1990s. Site 42UT704 was also associated with the farmstead, and was reported to contain a building foundation and farm equipment. The site was

Table 1: Archaeological Sites located within the Lower Garrison Study Area

Site No.	Project Number	Site Type	NRHP Eligibility	Site-Specific Finding of Effect
42UT137	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT138	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT139	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT140	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT141	U-07-HO-0055	Lithic Scatter	Eligible Criterion D	No Hist. Properties Affected (avoidance)
42UT0703	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible	No Hist. Properties Affected
42UT0704	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible (destroyed)	No Hist. Properties Affected
42UT0705 (42UT1557)	U-90-NP-0219 U-07-HO-0055 U-13-UV-0007	Saratoga Canal	Not Eligible	No Hist. Properties Affected
42UT0706	U-90-NP-0219	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT0946	U-07-HO-0055	Utah Lake Distributing Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT0947	U-06-HO-0116 U-07-HO-0055	Provo Reservoir Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT1497	U-06-ST-1079	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT1556	U-07-HO-0055	Trash Scatter	Not Eligible	No Hist. Properties Affected
42UT1757	U-13-UV-0007	Salt Lake & Utah Railroad	Eligible Criteria A/B	No Adverse Effect

determined ineligible for listing on the NRHP, and destroyed during construction of the driving range. Site 42UT705 represents a segment of the Saratoga Canal, and was determined ineligible for listing on the NRHP. Finally, Site 42UT706 is a low density lithic scatter which was determined ineligible for listing on the NRHP. The UTNG is working with USU Archaeological Services to reevaluate a number of archaeological sites at Camp Williams (U-13-UJ-1016), including Sites 42UT703 and 42UT706. The final report will be forwarded to your office very soon, and determinations of eligibility for Sites 42UT703 and 42UT706 will remain unchanged. A segment of 42UT946, the Utah Lake Distributing Canal, is also present within the limits

of the 1990 inventory. The site was not reported during the inventory and will be discussed below. This project will result in a finding of No Historic Properties Affected for Sites 42UT703, 42UT704, 42UT705 and 42UT706.

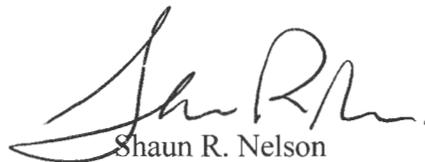
- U-03-BS-0453: A Cultural Resource Inventory for the Camp W.G. Williams Garrison Fence Project, Utah County, Utah (Baxter 2003). No Historic Properties were reported as a result of this inventory.
- U-06-HO-0116: A Cultural Resource Inventory of the South Garrison Project Area at Camp W.G. Williams, Utah County, Utah (Baxter 2006). One previously unrecorded segment of the Provo Reservoir Canal (aka Welby Jacob Canal), 42UT947, was reported within the current study area boundary. The Provo Reservoir Canal was constructed in 1915 and is eligible for listing on the NRHP under Criteria A and C. The UTNG recently executed a memorandum of agreement with your office (Case No. 13-0193) to enclose two canal segments (42UT946 and 42UT947) located within the Camp Williams boundary. While the canal segment will remain eligible under Criterion A, future development of the Lower Garrison area will not impact any features of the canal which contribute to the site's eligibility. This project will result in a finding of No Adverse Effect for Site 42UT947.
- U-06-ST-1079: An Archaeological and Architectural Assessment for the Proposed SR-68 Project, Bangerter Highway through Saratoga Springs, Salt Lake and Utah Counties, Utah (Stokes et al. 2006). One prehistoric site was reported within the current study area boundary. Site 42UT1497 consists of a widespread, sparse lithic scatter, and was determined ineligible for listing on the NRHP. Accordingly, development within the Lower Garrison area will result in a finding of No Historic Properties Affected for Site 42UT1497.
- U-07-HO-0055: A Cultural Resources Inventory of the Army Garrison Area on Camp W.G. Williams, Utah and Salt Lake Counties, Utah (Baxter and Jordan 2007). Five previously reported prehistoric sites within the current study area, including 42UT137, 42UT138, 42UT139, 42UT140 and 42UT141 were reported, as well as previously unrecorded segments of two historic canals, 42UT946 and 42UT947. Additionally, two new archaeological sites were reported within the current study area to include 42UT1556 and 42UT1557. Sites 42UT137 through 42UT140 are small lithic scatters originally reported by Jones (1961) as part of a Brigham Young University Master's Thesis. The sites were revisited in 2007 and determined ineligible for listing on the NRHP. Site 42UT141, also reported by Jones, consists of a large scatter of lithics, fire-cracked rock and ground stone. The site was determined eligible for listing on the NRHP as a result of the 2007 revisit. Site 42UT946, the Utah Lake Distributing Canal (aka Farm Canal), was constructed between 1910 and 1923, and is eligible for listing on the NRHP under Criteria A and C. Site 42UT1556 is a small historic trash scatter, and is not eligible for listing on the NRHP. Site 42UT1557 was reported as an eligible railroad grade, but was subsequently identified by the UTNG (U-13-UV-0007) as a segment of the ineligible Saratoga Canal (42UT705).

The project will result in a finding of No Historic Properties Affected for Sites 42UT137 through 42UT140 and 42UT1556 given that these sites are not eligible. The Lower Garrison Development Master Plan calls for a protective buffer around Site 42UT141. Given that no development or associated activity will occur in this area, the project will result in a finding of No Historic Properties Affected for Site 42UT141. As previously stated, the UTNG recently executed a memorandum of agreement (Case No. 13-0193) with your office to enclose two canal segments (42UT946 and 42UT947) located within the Camp Williams boundary. While the 42UT946 canal segment will remain eligible under Criterion A, future development of the Lower Garrison area will not impact any features of the canal which contribute to the site's eligibility. This project will result in a finding of No Adverse Effect for Site 42UT946.

- U-13-UV-0007: A Cultural Resources Inventory for the Jordan Valley Water Pipeline through Camp Williams, Salt Lake and Utah Counties, Utah (Nelson 2013). The UTNG revisited a previously reported canal segment and recorded a historic railroad grade. Site 42UT705 (reported as 42UT1557 by Bighorn Archaeological Consultants) consists of a segment of the Saratoga Canal, and is not eligible for listing on the NRHP. Site 42UT1757 is a segment of the historic Salt Lake & Utah Railroad which was constructed between 1912 and 1913. The railroad grade is eligible for listing on the NRHP under Criterion A and B. Future development within the Lower Garrison study area will result in a finding of No Historic Properties Affected for Site 42UT705. Given that Site 42UT1757 is eligible for listing on the NRHP under Criteria A and B, future development in the area will not affect any intact elements of the site which contribute to its eligibility. Accordingly, this project will result in a finding of No Adverse Effect for Site 42UT1757.

The UTNG determined Camp Williams Development Master Planning Project will result in an overall finding of No Adverse Effect provided site protection measures outlined above for Site 42UT141 (development buffer/avoidance) are implemented. Thank you for your efforts on our behalf. If you have any questions, please contact me at (801) 432-4097 or shaunnelson@utah.gov.

Sincerely,

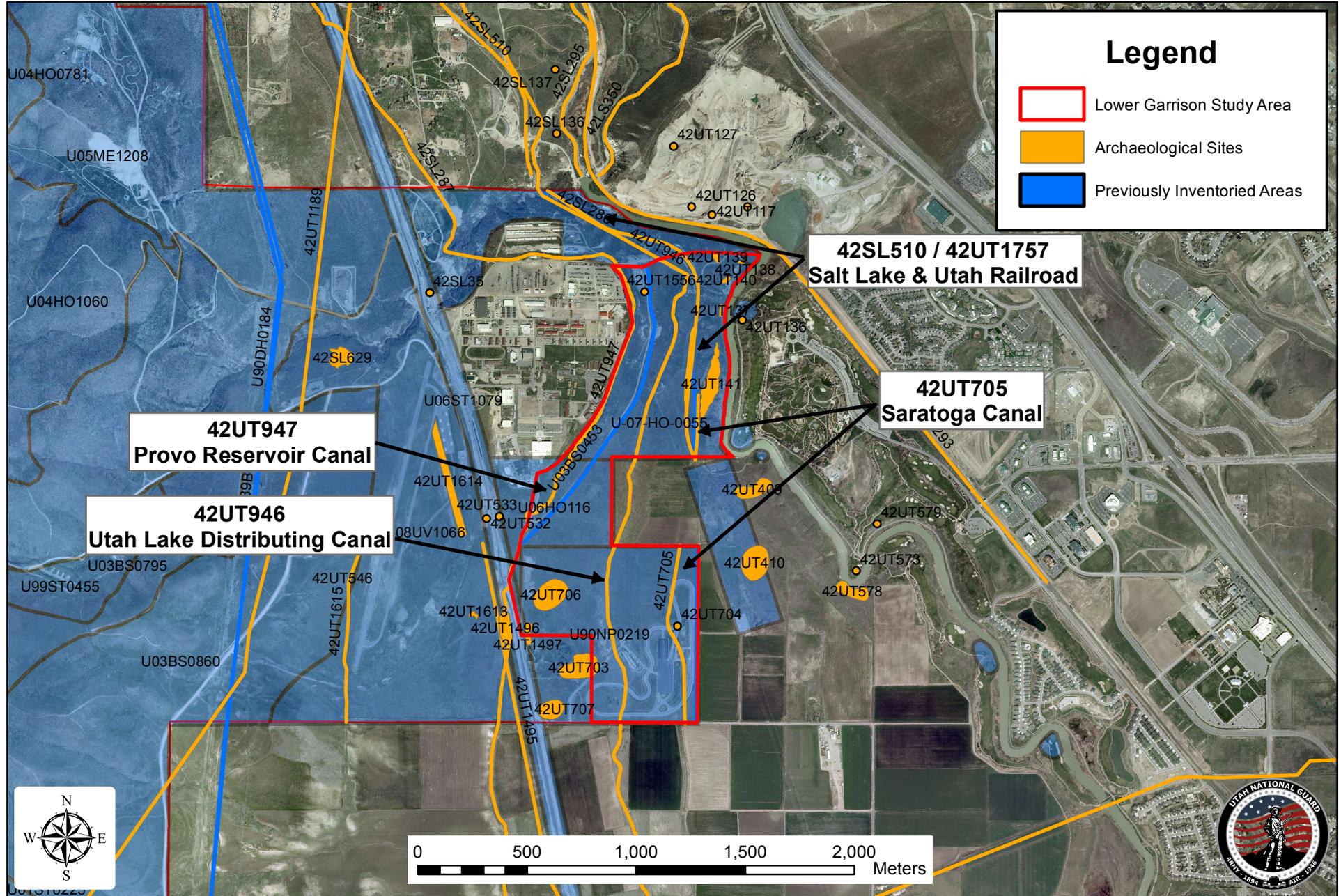


Shaun R. Nelson
Cultural Resources Manager

FOR OFFICIAL USE ONLY Camp Williams Lower Garrison Development Master Plan

NAD83 / GRS80
UTM 12N

01282014



Shaun Nelson | ERM | 01282014 | D:/UTNG_GIS/maps/mxds/Camp Williams/Lower Garrison Master Plan EA
Jordan Narrows, UT 7.5 Minute USGS Quad

No warranty is made by the State/Territory/National Guard Bureau as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.
This map is a "living document", in that it is intended to change as new data become available and is incorporated into the Enterprise GIS database.



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Julie Fisher
Executive Director
Department of
Heritage & Arts



Brad Westwood
Director

February 13, 2014

Shaun R. Nelson
Cultural Resources Program Manager
Utah National Guard
12953 Minuteman Drive
Draper Utah 84020-9286

RE: Camp Williams Lower Garrison Development Master Plan, Utah County, Utah

For future correspondence please reference Case No. 14-0093

Dear Mr. Nelson:

The Utah State Historic Preservation Office received your request for our comment on the above referenced undertaking on January 30, 2014.

We concur with your determinations of eligibility and effect for this undertaking.

Utah Code 9-8-4-4(1)(a) denotes that your agency is responsible for all final decisions regarding cultural resources for this undertaking. Our comments here are provided as specified in U.C.A. 9-8-4-4(3)(a)(i). If you have questions, please contact me at 801-245-7263 or Lori Hunsaker at 801-245-7241 lhunsaker@utah.gov.

Sincerely,

Chris Merritt, Ph.D.
Senior Preservation Specialist
comerritt@utah.gov



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Julie Fisher
Executive Director
Department of
Heritage & Arts



Brad Westwood
Director

August 26, 2015

Shaun R. Nelson
Cultural Resources Program Manager
Utah National Guard
12953 Minuteman Drive
Draper Utah 84020-9286

RE: Camp Williams Lower Garrison Development Master Plan, Utah County, Utah

For future correspondence, please reference Case No. 14-0093

Dear Mr. Nelson:

The Utah State Historic Preservation Office received your request for our comment on the above-referenced undertaking.

We concur with your determinations of eligibility and effect for this undertaking.

This letter serves as our comment on the determinations you have made, within the consultation process specified in §36CFR800.4. If you have questions, please contact me at 801-245-7263.

Sincerely,

Chris Merritt, Ph.D.
Deputy State Historic Preservation Officer
Archaeology
cmerritt@utah.gov



United States Department of Agriculture

Natural Resources
Conservation Service

Utah State Office

125 So. State Street
Room 4010
Salt Lake City, UT
84138-1100

Voice: 801-524-4550
Fax: 801-524-4403

Robert Price
Environmental Manager
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

Mr. Price,

On January 22, 2014 we received your request for information related to an Environmental Assessment for the Lower Garrison Development Master Plan at Camp Williams.

About 125 acres of the area of interest meets the definition of "Prime Farmland, if irrigated". The Utah County, Utah, Central Part Soil Survey on the WEB Soil Survey was used for the analysis.

The soil survey doesn't show any hydric soils in the area of interest. The U.S. Army Corps of Engineers administers the Section 404 program governing the discharge of dredge and fill material into waters in the U.S. as defined and guided by Section 404 of the Clean Water Act. The wetlands which fall within the Section 404 regulation are referred to as jurisdictional wetlands.

According to the Farmland Protection Policy Act, it is the responsibility of the Federal agency that is funding a project to report the number of acres of farmland actually converted. At the end of the fiscal year, NRCS compiles a report on the acres of farmland proposed for conversion and the acres actually converted. At your convenience please provide us the number of acres actually converted for this project.

Please let us know if there are other needs.

Sincerely,

Michael Domeier

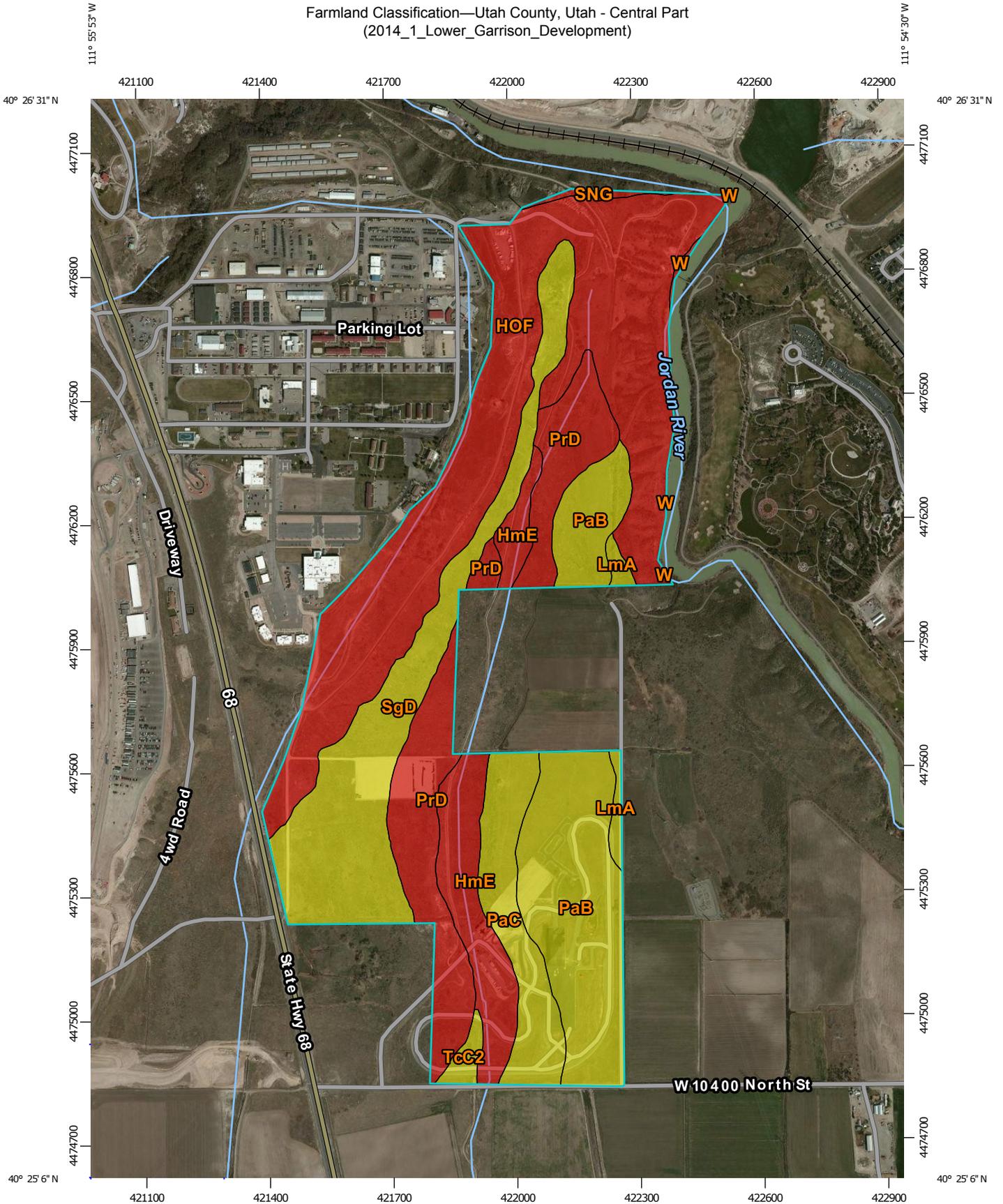
USDA NRCS State Soil Scientist

125 S. State St. Rm. 4010

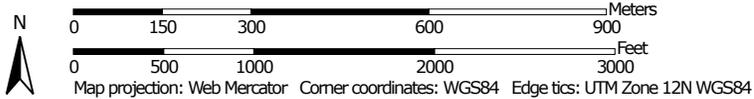
Salt Lake City, Utah 84138

Attached: Soil Survey map, Farmland Classification legend, AD-1006 Farmland Conversion Impact Rating form

Farmland Classification—Utah County, Utah - Central Part
(2014_1_Lower_Garrison_Development)



Map Scale: 1:12,700 if printed on A portrait (8.5" x 11") sheet.



Farmland Classification—Utah County, Utah - Central Part
(2014_1_Lower_Garrison_Development)

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Soil Rating Lines

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained

-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Soil Rating Points

-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Water Features

MAP INFORMATION

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Utah County, Utah - Central Part
Survey Area Data: Version 6, Dec 16, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 2, 2011—Apr 28, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Farmland Classification— Summary by Map Unit — Utah County, Utah - Central Part (UT621)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HmE	Hillfield silt loam, 10 to 20 percent slopes	Not prime farmland	22.5	7.7%
HOF	Hillfield-Sterling complex, 20 to 35 percent slopes	Not prime farmland	103.9	35.5%
LmA	Layton fine sandy loam, slowly permeable substratum, 0 to 1 percent slopes	Prime farmland if irrigated	2.8	1.0%
PaB	Parleys loam, 0 to 3 percent slopes	Prime farmland if irrigated	50.6	17.3%
PaC	Parleys loam, 3 to 6 percent slopes	Prime farmland if irrigated	20.5	7.0%
PrD	Pleasant Vale gravelly sandy loam, extended season, 6 to 10 percent slopes	Not prime farmland	39.6	13.5%
SgD	Sterling gravelly fine sandy loam, 6 to 10 percent slopes	Prime farmland if irrigated	48.8	16.7%
SNG	Sterling-Terrace escarpments complex, 30 to 70 percent slopes	Not prime farmland	1.1	0.4%
TcC2	Taylorville silty clay loam, extended season, 3 to 6 percent slopes, eroded	Prime farmland if irrigated	2.3	0.8%
W	Water	Not prime farmland	0.5	0.2%
Totals for Area of Interest			292.7	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request			
Name of Project		Federal Agency Involved			
Proposed Land Use		County and State			
PART II (To be completed by NRCS)		Date Request Received By NRCS		Person Completing Form:	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %			
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
PART VI (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		Maximum Points	Site A	Site B	Site C
1. Area In Non-urban Use		(15)			
2. Perimeter In Non-urban Use		(10)			
3. Percent Of Site Being Farmed		(20)			
4. Protection Provided By State and Local Government		(20)			
5. Distance From Urban Built-up Area		(15)			
6. Distance To Urban Support Services		(15)			
7. Size Of Present Farm Unit Compared To Average		(10)			
8. Creation Of Non-farmable Farmland		(10)			
9. Availability Of Farm Support Services		(5)			
10. On-Farm Investments		(20)			
11. Effects Of Conversion On Farm Support Services		(10)			
12. Compatibility With Existing Agricultural Use		(10)			
TOTAL SITE ASSESSMENT POINTS		160			
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100			
Total Site Assessment (From Part VI above or local site assessment)		160			
TOTAL POINTS (Total of above 2 lines)		260			
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:					
Name of Federal agency representative completing this form:					Date:

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

- Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, <http://fppa.nrcs.usda.gov/lesa/>.
- Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s) of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)
- Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.
- Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.
- Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.
- Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.
- Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.
2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.

Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Forestry, Fire and State Lands

BRIAN L. COTTAM
Division Director / State Forester

February 21, 2014

Robert Price
Attn: NGUT-ERM
Utah National Guard
12953 South Minuteman Drive
Draper, UT 84020

Re: Comments on the proposed Lower Garrison Development Master Plan, Camp William, Utah Army National Guard

Dear Mr. Price,

The Utah Division of Forestry, Fire and State Lands (FFSL) has received notice that the Utah National Guard intends to prepare an Environmental Assessment for a proposed Lower Garrison Development Master Plan.

The area proposed is bound by the Jordan River on the east. The Jordan River is considered sovereign land which is owned by the State of Utah and managed by FFSL. Any disturbance to or use of the banks and/or bed of the Jordan River requires prior authorization from FFSL. In order to determine the need for authorization for any proposed projects, FFSL strongly recommends that the Utah National Guard contact FFSL prior to initiating any project activities.

Please let me know if I can provide any more information or answer any questions. You may contact me at 801.538.5540 or lauraault@utah.gov.

Sincerely,

Laura Ault
Sovereign Lands Program Manager
Utah Division of Forestry, Fire and State Lands





Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

UTAH NATIONAL GUARD

12953 MINUTEMAN DRIVE
DRAPER, UTAH 84020-9286
(801) 432-4400

NGUT-ERM

19 May 2015

MEMORANDUM FOR RECORD

SUBJECT: Section 7 Endangered Species Act Consultation –Camp Williams

1. Reference:

a. Memorandum, ARNG-ILE, 10 Jun 2011, Subject: Endangered Species Act Compliance and National Environmental Policy Act Documentation.

2. Endangered Species Act documentation in the form of a memo is required for every Record of Environmental Consideration. Determinations of “May Affect” require consultation with the U.S. Fish and Wildlife Service (USFWS).

3. This evaluation covers all projects conducted at Camp Williams for 90 days from this date.

4. Environmental Resources Management (NGUT-ERM) has reviewed the USFWS Utah Ecological Service website and obtained a current species list from the USFWS Information, Planning and Conservation (IPAC) System to confirm species for the project area. According to this source, 5 federally-listed species are potentially found in this part of Salt Lake and Utah Counties (Table 1).

- a. Greater sage grouse (*Centrocercus urophasianus*) is a Candidate species, strongly preferring big sagebrush habitats. This species was reported during the initial 1992 Fauna Planning Level Survey (PLS), but has not been observed since during formal surveys or other natural monitoring or management work.
- b. Yellow-billed cuckoo (*Coccyzus americanus*) is a riparian-associated bird, habitat not found on this site. This bird has not been reported in any PLS, avian monitoring or other natural resource work.
- c. Canada lynx (*Lynx canadensis*) is a shy mammal associated with more rugged terrain. It has not been detected in Fauna PLS surveys, other wildlife work, or other natural resource monitoring and would not be expected on the camp.
- d. June sucker (*Chasmistes liorus*) is a fish in waterways not connected to the site.

NGUT-ERM

SUBJECT: Section 7 Endangered Species Act Consultation – Camp Williams

- e. Ute ladies'-tresses (*Spiranthes diluvialis*) are a wetland-associated plant. This species has not been detected on AGCW during repeated, focused surveys or during the course of other environmental work and surveys.
- f. Therefore, UT-ERM evaluates all species as being not present.

5. UT-ERM concludes that this project will not affect endangered species listed as of 19 May 2015.

6. The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). There are numerous migratory birds of concern that might be affected by proposals at Camp Williams. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

- a. All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts.

7. Please contact the below, at 801-878-5658 or douglas.a.johnson86.nfg@mail.mil, for more information.

JOHNSON.DOUGLA
S.ALAN.117765226
8

Digitally signed by
JOHNSON.DOUGLAS.ALAN.1177652268
DN: c=US, o=U.S. Government, ou=DoD,
ou=PKI, ou=USA,
cn=JOHNSON.DOUGLAS.ALAN.1177652268
Date: 2015.05.19 10:14:37 -06'00'

DOUGLAS A. JOHNSON
Natural Resources Manager

Table 1. Species that should be considered in an effects analysis for your project:

Species	Status		Has Critical Habitat	Analysis
Greater sage-grouse (<i>Centrocercus urophasianus</i>) Population: entire	Candidate 	species info		Not present.
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>) Population: Western U.S. DPS	Threatened 	species info	Proposed critical habitat	Not present. No critical habitat on or adjacent to AGCW.
June sucker (<i>Chasmistes liorus</i>) Population: Entire	Endangered 	species info	Final designated critical habitat	Not present. No critical habitat on or adjacent to AGCW.
Ute ladies'-tresses (<i>Spiranthes diluvialis</i>)	Threatened 	species info		Not present
Canada Lynx (<i>Lynx canadensis</i>) Population: (Contiguous U.S. DPS)	Threatened 	species info	Final designated critical habitat	Not present. No critical habitat on or adjacent to AGCW.



Robert Price <rprice@utah.gov>

Camp Williams Development EA

7 messages

Robert Price <rprice@utah.gov>
To: Laura Ault <lauraault@utah.gov>

Wed, Dec 2, 2015 at 9:19 AM

Laura,

You responded to our initial scoping letter for a Lower Garrison Development Master Plan EA in February of 2014 (attached). In the interim our proposed action has changed. Instead of proposing adoption of a Master Plan we are instead proposing construction of components of the Master Plan that are reasonably foreseeable, i.e., those actions that we can anticipate funding for in the near future.

I have attached a site figure that shows the original area of affect as Figure 1-2 and the revised proposed area as Figure 1-1.

I will be sending updated stakeholder letters in the near future, but first wanted to address a question raised within internal legal review. Your letter in 2014 stated that you strongly recommend that the UTNG contact FFSL prior to initiating project activities, presumably based on the potential for impacts to the banks or bed of the Jordan River. As we have changed our proposed action to one that is approximately 2000 feet from the Jordan River, we would anticipate that no further coordination for this project is required prior to construction. Do you concur?

—

Robert Price
Utah National Guard
Environmental Resource Management
12953 S. Minuteman Drive
Draper, UT 84020
[\(801\) 432-4454](tel:(801)432-4454)

2 attachments

 **Site Pages from UTARNG_EA_PublicFinal (1).pdf**
829K

 **FFSL Letter.pdf**
57K

Laura Ault <lauraault@utah.gov>
To: Robert Price <rprice@utah.gov>

Thu, Dec 10, 2015 at 2:33 PM

Robert,

If construction activities 2000 feet away from the bank of the Jordan River then I concur that no coordination with the Division is needed. Thanks for getting back with me.

Best,

Laura

Laura Ault
Sovereign Lands Program Manager
Division of Forestry, Fire and State Lands

APPENDIX D

Correspondence with Tribal Governments



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

UTAH NATIONAL GUARD

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(801) 432-4400

Environmental Resources Management

January 17, 2014

Ute Indian Tribe
ATTN: Ms. Betsy Chapoose
PO Box 190
Fort Duchesne, UT 84026-0190

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Chapoose

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

This letter is not a request for consultation. Any consultation that may be required as a result of the proposed project would be handled separately. Your office will be provided with a copy of the EA upon its completion for further review and comment if requested. For any specific questions about the EA process or additional details regarding the proposed project, please contact Robert Price at (801) 432-4454 or Robert.price51.nfg@mail.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Price". The signature is stylized with a large, sweeping initial "R" and a long, horizontal tail.

Robert Price
Environmental Manager

Attachment:
Lower Garrison Development Master Plan – Proposed Action Location



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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Environmental Resources Management

January 23, 2014

Ute Indian Tribe

ATTN: Mr. Gordon Howell
PO Box 190
Fort Duchesne, UT 84026

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Howell:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

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Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Sincerely,

A handwritten signature in black ink, appearing to read "Robert Price", with a stylized flourish at the end.

Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

UTAH NATIONAL GUARD

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(801) 432-4400

Environmental Resources Management

January 22, 2014

Northwestern Band of Shoshone Nation
ATTN: Mr. Jason Walker
707 N. Main Street
Brigham City, UT 84302

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Mr. Jason Walker

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

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Sincerely,

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Robert Price
Environmental Manager

Attachment:
Lower Garrison Development Master Plan – Proposed Action Location



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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(801) 432-4400

Environmental Resources Management

January 23, 2014

Skull Valley Band of Goshute Indians

ATTN: Ms. Lori Bear

PO Box 448

Grantsville, UT 84026

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Bear:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

This letter is not a request for consultation. Any consultation that may be required as a result of the proposed project would be handled separately. Your office will be provided with a copy of the EA upon its completion for further review and comment if requested. For any specific questions about the EA process or additional details regarding the proposed project, please contact Robert Price at (801) 432-4454 or Robert.price51.nfg@mail.mil.

Sincerely,

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Robert Price
Environmental Manager

Attachment:
Lower Garrison Development Master Plan – Proposed Action Location



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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Environmental Resources Management

January 23, 2014

Confederated Tribe of Goshute
ATTN: Ms. Madeline Greymountain
PO Box 6104
Ibapah, UT 84034

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Greymountain:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

This letter is not a request for consultation. Any consultation that may be required as a result of the proposed project would be handled separately. Your office will be provided with a copy of the EA upon its completion for further review and comment if requested. For any specific questions about the EA process or additional details regarding the proposed project, please contact Robert Price at (801) 432-4454 or Robert.price51.nfg@mail.mil.

Sincerely,

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Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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Environmental Resources Management

January 17, 2014

Ute Indian Tribe

ATTN: Ms. Maxine Natchees

PO Box 190

Fort Duchesne, UT 84026-0190

Subject: Proposed Lower Garrison Development Master Plan, Camp Williams Utah Army National Guard

Dear Ms. Natchees:

In accordance with the National Environmental Policy Act of 1969 (NEPA), the Utah Army National Guard (UTARNG) is preparing an Environmental Assessment (EA) for a proposed Lower Garrison Development Master Plan contiguous to the existing Camp Williams cantonment area. The EA will identify, document, and evaluate potential environmental, cultural, and socioeconomical effects associated with the proposed action.

The UTARNG initiated development planning for Camp Williams in March 2011 and identified the Camp Williams Lower Garrison Development Master Plan as an important component project necessary to ensure its long-term viability, sustainability, and value as a training site with infrastructure and space for UTARNG units to support ongoing missions.

The proposed action is located in Utah County, Utah, near Bluffdale City and consists of an approximately 291-acre tract. The site is bound by the Jordan River on the east, Redwood Road to the west, 10400 North Street on the south, and the Beef Hollow drainage to the north. The proposed action is being evaluated compared to a No Action alternative. Under the proposed action, 13 projects are identified for construction in the 291-acre area. Development includes construction of readiness centers; unit training facilities; cold storage; equipment storage; combined surface maintenance shop; Morale, Welfare, and Recreation (MWR) sites; utility infrastructure; and renewable energy sites. A figure identifying the proposed action location is provided as an attachment.

The purpose of this letter is to request your comments regarding potential issues of concern to the Department of Natural Resources regarding the proposed action. Please provide questions or comments concerning your area of expertise by February 21, 2014 to the following address:

Robert Price
Attn NGUT-ERM
Utah National Guard
12953 S. Minuteman Drive
Draper, UT 84020

This letter is not a request for consultation. Any consultation that may be required as a result of the proposed project would be handled separately. Your office will be provided with a copy of the EA upon its completion for further review and comment if requested. For any specific questions about the EA process or additional details regarding the proposed project, please contact Robert Price at (801) 432-4454 or Robert.price51.nfg@mail.mil.

Sincerely,

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Robert Price
Environmental Manager

Attachment:

Lower Garrison Development Master Plan – Area of Disturbance for Proposed Action



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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(801) 432-4400

February 6, 2014

Ms. Madeline Greymountain, Chairperson
Confederated Tribes of the Goshute Indian Reservation
P.O. Box 6104
Ibapah, UT 84034

Dear Chairperson Greymountain:

The Utah National Guard (UTNG) is preparing an environmental assessment for the proposed Lower Garrison Development Master Plan. The UTNG sent a scoping letter to your office dated January 21, 2014, to solicit comments or concerns the Confederated Tribes of the Goshute Indian Reservation may have regarding development in the Lower Garrison area. This letter is intended to provide your office with additional National Historic Preservation Act (NHPA) information regarding any historic or archaeological resources which may be eligible for the State or National Registers, and to afford interested stakeholders an opportunity to comment on the undertaking and its effects, as outlined in Section 106 of the NHPA of 1966, as amended, and its implementing regulation, 36 CFR Part 800.

The Lower Garrison Development area of potential effects (APE) consists of a 291-acre parcel bounded by the Jordan River to the east, the existing Camp Williams Cantonment Area and Redwood Road to the west, the Beef Hollow drainage to the north, and Lehi's 2600 North Street to the south (see attached map). Future projects identified for construction within the Lower Garrison area include readiness centers, unit training facilities, cold storage structures and utility infrastructure.

The study area is located entirely within areas that were previously inventoried for cultural resources. A total of 14 archaeological sites are present within the project area, and are summarized in Table 1. Sites 42UT137 through 42UT140 are small lithic scatters originally reported by Jones (1961) as part of a Brigham Young University Master's Thesis. The sites were revisited in 2007 and determined ineligible for listing on the National Register of Historic Places (NRHP). Site 42UT141, also reported by Jones, consists of a large scatter of lithics, fire-cracked rock and ground stone. The site was determined eligible for listing on the NRHP during the 2007 revisit. The Lower Garrison Development Master Plan calls for a protective buffer around Site 42UT141. Given that Sites 42UT137 through 42UT140 are not eligible for listing on the NRHP, and no development or associated activity will occur in the area containing Site 42UT141, the project will result in a finding of No Historic Properties Affected for these sites.

Site 42UT703 includes features and artifacts associated with an early 20th century farmstead. The site was determined ineligible for listing on the NRHP, and was partially destroyed during construction of the Utah Department of Public Safety Driving Range in the early-1990s. Site

Table 1: Archaeological Sites located within the Lower Garrison Study Area

Site No.	Project Number	Site Type	NRHP Eligibility	Site-Specific Finding of Effect
42UT137	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT138	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT139	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT140	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT141	U-07-HO-0055	Lithic Scatter	Eligible Criterion D	No Hist. Properties Affected (avoidance)
42UT0703	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible	No Hist. Properties Affected
42UT0704	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible (destroyed)	No Hist. Properties Affected
42UT0705	U-90-NP-0219 U-07-HO-0055 U-13-UV-0007	Saratoga Canal	Not Eligible	No Hist. Properties Affected
42UT0706	U-90-NP-0219	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT0946	U-07-HO-0055	Utah Lake Distributing Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT0947	U-06-HO-0116 U-07-HO-0055	Provo Reservoir Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT1497	U-06-ST-1079	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT1556	U-07-HO-0055	Trash Scatter	Not Eligible	No Hist. Properties Affected
42UT1757	U-13-UV-0007	Salt Lake & Utah Railroad	Eligible Criteria A/B	No Adverse Effect

42UT704 was also associated with the farmstead, and was reported to contain a building foundation and farm equipment. The site was determined ineligible for listing on the NRHP, and destroyed during construction of the driving range. Site 42UT705 represents a segment of the Saratoga Canal, and was determined ineligible for listing on the NRHP. Site 42UT706 is a low density lithic scatter which was determined ineligible for listing on the NRHP. Given that Sites 42UT703 through 42UT706 are not eligible for listing on the NRHP, the project will result in a finding of No Historic Properties Affected for these sites.

Site 42UT946, the Utah Lake Distributing Canal (aka Farm Canal), was constructed between 1910 and 1923, and is eligible for listing on the NRHP under Criteria A and C. A segment of the Provo Reservoir Canal (aka Welby Jacob Canal), 42UT947, is also located within the current study area boundary. The Provo Reservoir Canal was constructed in 1915 and is also eligible for listing on the NRHP under Criteria A and C. The UTNG recently executed a memorandum of agreement with the State Historic Preservation Office to enclose both canal segments (42UT946 and 42UT947) located within the Camp Williams boundary. While the canal segments will remain eligible under Criterion A, future development of the Lower Garrison area will not impact any features of the canals which contribute to their eligibility. Accordingly, the project will result in a finding of No Adverse Effect for both canal segments.

Site 42UT1497 consists of a dispersed, sparse lithic scatter, and was determined ineligible for listing on the NRHP. Site 42UT1556 is a small historic trash scatter, and is not eligible for listing on the NRHP. Site 42UT1757 is a segment of the historic Salt Lake & Utah Railroad which was constructed between 1912 and 1913. The railroad grade is eligible for listing on the NRHP under Criterion A and B. The project will not result in impacts to any features which contribute to the railroad alignment's eligibility, and will result in a finding of No Adverse Effect for this site, and No Historic Properties Affected for Sites 42UT1497 and 42UT1556.

The UTNG considered the presence of these sites, and determined that the Camp Williams Development Master Planning Project will result in an overall finding of No Adverse Effect provided site protection measures outlined above for Site 42UT141 (development buffer/avoidance) are implemented. If you have any comments or concerns with this project, we request that you contact us at the number below. At your request, UTNG staff will be available to meet with you to discuss any concerns you might have. Please be assured that we will maintain strict confidentiality about certain types of information regarding traditional religious and/or cultural historic properties that might be affected by this proposed undertaking. Please feel free to contact me at (801) 432-4097 or shaunnelson@utah.gov to answer any questions or provide any additional information. Thank you for your attention to this project notification and any comments you may have.

Sincerely,



Shaun R. Nelson
Cultural Resources Manager

Enclosure:

Camp Williams Lower Garrison Development Master Plan Map



State of Utah

UTAH NATIONAL GUARD

Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

12953 MINUTEMAN DRIVE
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(801) 432-4400

February 6, 2014

Mr. Jason Walker, Chairman
Northwestern Band of the Shoshone Nation
707 North Main Street
Brigham City, UT 84302

Dear Chairman Walker:

The Utah National Guard (UTNG) is preparing an environmental assessment for the proposed Lower Garrison Development Master Plan. The UTNG sent a scoping letter to your office dated January 21, 2014, to solicit comments or concerns the Northwestern Band of the Shoshone Nation may have regarding development in the Lower Garrison area. This letter is intended to provide your office with additional National Historic Preservation Act (NHPA) information regarding any historic or archaeological resources which may be eligible for the State or National Registers, and to afford interested stakeholders an opportunity to comment on the undertaking and its effects, as outlined in Section 106 of the NHPA of 1966, as amended, and its implementing regulation, 36 CFR Part 800.

The Lower Garrison Development area of potential effects (APE) consists of a 291-acre parcel bounded by the Jordan River to the east, the existing Camp Williams Cantonment Area and Redwood Road to the west, the Beef Hollow drainage to the north, and Lehi's 2600 North Street to the south (see attached map). Future projects identified for construction within the Lower Garrison area include readiness centers, unit training facilities, cold storage structures and utility infrastructure.

The study area is located entirely within areas that were previously inventoried for cultural resources. A total of 14 archaeological sites are present within the project area, and are summarized in Table 1. Sites 42UT137 through 42UT140 are small lithic scatters originally reported by Jones (1961) as part of a Brigham Young University Master's Thesis. The sites were revisited in 2007 and determined ineligible for listing on the National Register of Historic Places (NRHP). Site 42UT141, also reported by Jones, consists of a large scatter of lithics, fire-cracked rock and ground stone. The site was determined eligible for listing on the NRHP during the 2007 revisit. The Lower Garrison Development Master Plan calls for a protective buffer around Site 42UT141. Given that Sites 42UT137 through 42UT140 are not eligible for listing on the NRHP, and no development or associated activity will occur in the area containing Site 42UT141, the project will result in a finding of No Historic Properties Affected for these sites.

Site 42UT703 includes features and artifacts associated with an early 20th century farmstead. The site was determined ineligible for listing on the NRHP, and was partially destroyed during construction of the Utah Department of Public Safety Driving Range in the early-1990s. Site

Table 1: Archaeological Sites located within the Lower Garrison Study Area

Site No.	Project Number	Site Type	NRHP Eligibility	Site-Specific Finding of Effect
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42UT139	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT140	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT141	U-07-HO-0055	Lithic Scatter	Eligible Criterion D	No Hist. Properties Affected (avoidance)
42UT0703	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible	No Hist. Properties Affected
42UT0704	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible (destroyed)	No Hist. Properties Affected
42UT0705	U-90-NP-0219 U-07-HO-0055 U-13-UV-0007	Saratoga Canal	Not Eligible	No Hist. Properties Affected
42UT0706	U-90-NP-0219	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT0946	U-07-HO-0055	Utah Lake Distributing Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT0947	U-06-HO-0116 U-07-HO-0055	Provo Reservoir Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT1497	U-06-ST-1079	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT1556	U-07-HO-0055	Trash Scatter	Not Eligible	No Hist. Properties Affected
42UT1757	U-13-UV-0007	Salt Lake & Utah Railroad	Eligible Criteria A/B	No Adverse Effect

42UT704 was also associated with the farmstead, and was reported to contain a building foundation and farm equipment. The site was determined ineligible for listing on the NRHP, and destroyed during construction of the driving range. Site 42UT705 represents a segment of the Saratoga Canal, and was determined ineligible for listing on the NRHP. Site 42UT706 is a low density lithic scatter which was determined ineligible for listing on the NRHP. Given that Sites 42UT703 through 42UT706 are not eligible for listing on the NRHP, the project will result in a finding of No Historic Properties Affected for these sites.

Chairman Walker Letter
February 6, 2014
Page 3

Site 42UT946, the Utah Lake Distributing Canal (aka Farm Canal), was constructed between 1910 and 1923, and is eligible for listing on the NRHP under Criteria A and C. A segment of the Provo Reservoir Canal (aka Welby Jacob Canal), 42UT947, is also located within the current study area boundary. The Provo Reservoir Canal was constructed in 1915 and is also eligible for listing on the NRHP under Criteria A and C. The UTNG recently executed a memorandum of agreement with the State Historic Preservation Office to enclose both canal segments (42UT946 and 42UT947) located within the Camp Williams boundary. While the canal segments will remain eligible under Criterion A, future development of the Lower Garrison area will not impact any features of the canals which contribute to their eligibility. Accordingly, the project will result in a finding of No Adverse Effect for both canal segments.

Site 42UT1497 consists of a dispersed, sparse lithic scatter, and was determined ineligible for listing on the NRHP. Site 42UT1556 is a small historic trash scatter, and is not eligible for listing on the NRHP. Site 42UT1757 is a segment of the historic Salt Lake & Utah Railroad which was constructed between 1912 and 1913. The railroad grade is eligible for listing on the NRHP under Criterion A and B. The project will not result in impacts to any features which contribute to the railroad alignment's eligibility, and will result in a finding of No Adverse Effect for this site, and No Historic Properties Affected for Sites 42UT1497 and 42UT1556.

The UTNG considered the presence of these sites, and determined that the Camp Williams Development Master Planning Project will result in an overall finding of No Adverse Effect provided site protection measures outlined above for Site 42UT141 (development buffer/avoidance) are implemented. If you have any comments or concerns with this project, we request that you contact us at the number below. At your request, UTNG staff will be available to meet with you to discuss any concerns you might have. Please be assured that we will maintain strict confidentiality about certain types of information regarding traditional religious and/or cultural historic properties that might be affected by this proposed undertaking. Please feel free to contact me at (801) 432-4097 or shaunnelson@utah.gov to answer any questions or provide any additional information. Thank you for your attention to this project notification and any comments you may have.

Sincerely,



Shaun R. Nelson
Cultural Resources Manager

Enclosure: Camp Williams Lower Garrison Development Master Plan Map

cc: Patty Timbimboo-Madsen, Cultural/Natural Resources Manager, Northwestern Band of the Shoshone Nation



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

UTAH NATIONAL GUARD

12953 MINUTEMAN DRIVE
DRAPER, UTAH 84020-9286
(801) 432-4400

February 6, 2014

Ms. Gari Lafferty, Chairperson
Paiute Indian Tribe of Utah
440 North Paiute Dr.
Cedar City, UT 84721

Dear Chairperson Lafferty:

The Utah National Guard (UTNG) is preparing an environmental assessment for the proposed Lower Garrison Development Master Plan. In accordance with the regulations published by the Advisory Council on Historic Preservation, 36 CFR Part 800, the UTNG requests that you review this information to determine if there are any historic properties of traditional religious and/or cultural importance that may be affected by any of these undertakings.

The Lower Garrison Development area of potential effects (APE) consists of a 291-acre parcel bounded by the Jordan River to the east, the existing Camp Williams Cantonment Area and Redwood Road to the west, the Beef Hollow drainage to the north, and Lehi's 2600 North Street to the south (see attached map). Future projects identified for construction within the Lower Garrison area include readiness centers, unit training facilities, cold storage structures and utility infrastructure.

The study area is located entirely within areas that were previously inventoried for cultural resources. A total of 14 archaeological sites are present within the project area, and are summarized in Table 1. Sites 42UT137 through 42UT140 are small lithic scatters originally reported by Jones (1961) as part of a Brigham Young University Master's Thesis. The sites were revisited in 2007 and determined ineligible for listing on the National Register of Historic Places (NRHP). Site 42UT141, also reported by Jones, consists of a large scatter of lithics, fire-cracked rock and ground stone. The site was determined eligible for listing on the NRHP during the 2007 revisit. The Lower Garrison Development Master Plan calls for a protective buffer around Site 42UT141. Given that Sites 42UT137 through 42UT140 are not eligible for listing on the NRHP, and no development or associated activity will occur in the area containing Site 42UT141, the project will result in a finding of No Historic Properties Affected for these sites.

Site 42UT703 includes features and artifacts associated with an early 20th century farmstead. The site was determined ineligible for listing on the NRHP, and was partially destroyed during construction of the Utah Department of Public Safety Driving Range in the early-1990s. Site

Table 1: Archaeological Sites located within the Lower Garrison Study Area

Site No.	Project Number	Site Type	NRHP Eligibility	Site-Specific Finding of Effect
42UT137	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT138	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT139	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT140	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT141	U-07-HO-0055	Lithic Scatter	Eligible Criterion D	No Hist. Properties Affected (avoidance)
42UT0703	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible	No Hist. Properties Affected
42UT0704	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible (destroyed)	No Hist. Properties Affected
42UT0705	U-90-NP-0219 U-07-HO-0055 U-13-UV-0007	Saratoga Canal	Not Eligible	No Hist. Properties Affected
42UT0706	U-90-NP-0219	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT0946	U-07-HO-0055	Utah Lake Distributing Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT0947	U-06-HO-0116 U-07-HO-0055	Provo Reservoir Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT1497	U-06-ST-1079	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT1556	U-07-HO-0055	Trash Scatter	Not Eligible	No Hist. Properties Affected
42UT1757	U-13-UV-0007	Salt Lake & Utah Railroad	Eligible Criteria A/B	No Adverse Effect

42UT704 was also associated with the farmstead, and was reported to contain a building foundation and farm equipment. The site was determined ineligible for listing on the NRHP, and destroyed during construction of the driving range. Site 42UT705 represents a segment of the Saratoga Canal, and was determined ineligible for listing on the NRHP. Site 42UT706 is a low density lithic scatter which was determined ineligible for listing on the NRHP. Given that Sites 42UT703 through 42UT706 are not eligible for listing on the NRHP, the project will result in a finding of No Historic Properties Affected for these sites.

Chairperson Lafferty Letter
February 6, 2014
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Site 42UT946, the Utah Lake Distributing Canal (aka Farm Canal), was constructed between 1910 and 1923, and is eligible for listing on the NRHP under Criteria A and C. A segment of the Provo Reservoir Canal (aka Welby Jacob Canal), 42UT947, is also located within the current study area boundary. The Provo Reservoir Canal was constructed in 1915 and is also eligible for listing on the NRHP under Criteria A and C. The UTNG recently executed a memorandum of agreement with the State Historic Preservation Office to enclose both canal segments (42UT946 and 42UT947) located within the Camp Williams boundary. While the canal segments will remain eligible under Criterion A, future development of the Lower Garrison area will not impact any features of the canals which contribute to their eligibility. Accordingly, the project will result in a finding of No Adverse Effect for both canal segments.

Site 42UT1497 consists of a dispersed, sparse lithic scatter, and was determined ineligible for listing on the NRHP. Site 42UT1556 is a small historic trash scatter, and is not eligible for listing on the NRHP. Site 42UT1757 is a segment of the historic Salt Lake & Utah Railroad which was constructed between 1912 and 1913. The railroad grade is eligible for listing on the NRHP under Criterion A and B. The project will not result in impacts to any features which contribute to the railroad alignment's eligibility, and will result in a finding of No Adverse Effect for this site, and No Historic Properties Affected for Sites 42UT1497 and 42UT1556.

The UTNG considered the presence of these sites, and determined that the Camp Williams Development Master Planning Project will result in an overall finding of No Adverse Effect provided site protection measures outlined above for Site 42UT141 (development buffer/avoidance) are implemented. If you have any comments or concerns with this project, we request that you contact us at the number below. At your request, UTNG staff will be available to meet with you to discuss any concerns you might have. Please be assured that we will maintain strict confidentiality about certain types of information regarding traditional religious and/or cultural historic properties that might be affected by this proposed undertaking. Please feel free to contact me at (801) 432-4097 or shaunnelson@utah.gov to answer any questions or provide any additional information. Thank you for your attention to this project notification and any comments you may have.

Sincerely,



Shaun R. Nelson
Cultural Resources Manager

Enclosure: Camp Williams Lower Garrison Development Master Plan Map

cc: Dorena Martineau, Cultural Resources Director, Paiute Indian Tribe of Utah



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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(801) 432-4400

February 6, 2014

Ms. Lori Bear, Chairperson
Skull Valley Band of Goshute Indians
P.O. Box 448
Grantsville, UT 84029

Dear Chairperson Bear:

The Utah National Guard (UTNG) is preparing an environmental assessment for the proposed Lower Garrison Development Master Plan. The UTNG sent a scoping letter to your office dated January 21, 2014, to solicit comments or concerns the Skull Valley Band of Goshute Indians may have regarding development in the Lower Garrison area. This letter is intended to provide your office with additional National Historic Preservation Act (NHPA) information regarding any historic or archaeological resources which may be eligible for the State or National Registers, and to afford interested stakeholders an opportunity to comment on the undertaking and its effects, as outlined in Section 106 of the NHPA of 1966, as amended, and its implementing regulation, 36 CFR Part 800.

The Lower Garrison Development area of potential effects (APE) consists of a 291-acre parcel bounded by the Jordan River to the east, the existing Camp Williams Cantonment Area and Redwood Road to the west, the Beef Hollow drainage to the north, and Lehi's 2600 North Street to the south (see attached map). Future projects identified for construction within the Lower Garrison area include readiness centers, unit training facilities, cold storage structures and utility infrastructure.

The study area is located entirely within areas that were previously inventoried for cultural resources. A total of 14 archaeological sites are present within the project area, and are summarized in Table 1. Sites 42UT137 through 42UT140 are small lithic scatters originally reported by Jones (1961) as part of a Brigham Young University Master's Thesis. The sites were revisited in 2007 and determined ineligible for listing on the National Register of Historic Places (NRHP). Site 42UT141, also reported by Jones, consists of a large scatter of lithics, fire-cracked rock and ground stone. The site was determined eligible for listing on the NRHP during the 2007 revisit. The Lower Garrison Development Master Plan calls for a protective buffer around Site 42UT141. Given that Sites 42UT137 through 42UT140 are not eligible for listing on the NRHP, and no development or associated activity will occur in the area containing Site 42UT141, the project will result in a finding of No Historic Properties Affected for these sites.

Site 42UT703 includes features and artifacts associated with an early 20th century farmstead. The site was determined ineligible for listing on the NRHP, and was partially destroyed during construction of the Utah Department of Public Safety Driving Range in the early-1990s. Site

Table 1: Archaeological Sites located within the Lower Garrison Study Area

Site No.	Project Number	Site Type	NRHP Eligibility	Site-Specific Finding of Effect
42UT137	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT138	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT139	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT140	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT141	U-07-HO-0055	Lithic Scatter	Eligible Criterion D	No Hist. Properties Affected (avoidance)
42UT0703	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible	No Hist. Properties Affected
42UT0704	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible (destroyed)	No Hist. Properties Affected
42UT0705	U-90-NP-0219 U-07-HO-0055 U-13-UV-0007	Saratoga Canal	Not Eligible	No Hist. Properties Affected
42UT0706	U-90-NP-0219	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT0946	U-07-HO-0055	Utah Lake Distributing Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT0947	U-06-HO-0116 U-07-HO-0055	Provo Reservoir Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT1497	U-06-ST-1079	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT1556	U-07-HO-0055	Trash Scatter	Not Eligible	No Hist. Properties Affected
42UT1757	U-13-UV-0007	Salt Lake & Utah Railroad	Eligible Criteria A/B	No Adverse Effect

42UT704 was also associated with the farmstead, and was reported to contain a building foundation and farm equipment. The site was determined ineligible for listing on the NRHP, and destroyed during construction of the driving range. Site 42UT705 represents a segment of the Saratoga Canal, and was determined ineligible for listing on the NRHP. Site 42UT706 is a low density lithic scatter which was determined ineligible for listing on the NRHP. Given that Sites 42UT703 through 42UT706 are not eligible for listing on the NRHP, the project will result in a finding of No Historic Properties Affected for these sites.

Chairperson Bear Letter
February 6, 2014
Page 3

Site 42UT946, the Utah Lake Distributing Canal (aka Farm Canal), was constructed between 1910 and 1923, and is eligible for listing on the NRHP under Criteria A and C. A segment of the Provo Reservoir Canal (aka Welby Jacob Canal), 42UT947, is also located within the current study area boundary. The Provo Reservoir Canal was constructed in 1915 and is also eligible for listing on the NRHP under Criteria A and C. The UTNG recently executed a memorandum of agreement with the State Historic Preservation Office to enclose both canal segments (42UT946 and 42UT947) located within the Camp Williams boundary. While the canal segments will remain eligible under Criterion A, future development of the Lower Garrison area will not impact any features of the canals which contribute to their eligibility. Accordingly, the project will result in a finding of No Adverse Effect for both canal segments.

Site 42UT1497 consists of a dispersed, sparse lithic scatter, and was determined ineligible for listing on the NRHP. Site 42UT1556 is a small historic trash scatter, and is not eligible for listing on the NRHP. Site 42UT1757 is a segment of the historic Salt Lake & Utah Railroad which was constructed between 1912 and 1913. The railroad grade is eligible for listing on the NRHP under Criterion A and B. The project will not result in impacts to any features which contribute to the railroad alignment's eligibility, and will result in a finding of No Adverse Effect for this site, and No Historic Properties Affected for Sites 42UT1497 and 42UT1556.

The UTNG considered the presence of these sites, and determined that the Camp Williams Development Master Planning Project will result in an overall finding of No Adverse Effect provided site protection measures outlined above for Site 42UT141 (development buffer/avoidance) are implemented. If you have any comments or concerns with this project, we request that you contact us at the number below. At your request, UTNG staff will be available to meet with you to discuss any concerns you might have. Please be assured that we will maintain strict confidentiality about certain types of information regarding traditional religious and/or cultural historic properties that might be affected by this proposed undertaking. Please feel free to contact me at (801) 432-4097 or shaunnelson@utah.gov to answer any questions or provide any additional information. Thank you for your attention to this project notification and any comments you may have.

Sincerely,



Shaun R. Nelson
Cultural Resources Manager

Enclosure: Camp Williams Lower Garrison Development Master Plan Map



Gary R. Herbert
Governor
MG Jefferson S. Burton
The Adjutant General

State of Utah

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(801) 432-4400

February 6, 2014

Mr. Gordon Howell, Chairman
Ute Indian Tribe
PO Box 190
Fort Duchesne, UT 84026

Dear Chairman Howell:

The Utah National Guard (UTNG) is preparing an environmental assessment for the proposed Lower Garrison Development Master Plan. The UTNG sent a scoping letter to your office dated January 21, 2014, to solicit comments or concerns the Ute Indian Tribe may have regarding development in the Lower Garrison area. This letter is intended to provide your office with additional National Historic Preservation Act (NHPA) information regarding any historic or archaeological resources which may be eligible for the State or National Registers, and to afford interested stakeholders an opportunity to comment on the undertaking and its effects, as outlined in Section 106 of the NHPA of 1966, as amended, and its implementing regulation, 36 CFR Part 800.

The Lower Garrison Development area of potential effects (APE) consists of a 291-acre parcel bounded by the Jordan River to the east, the existing Camp Williams Cantonment Area and Redwood Road to the west, the Beef Hollow drainage to the north, and Lehi's 2600 North Street to the south (see attached map). Future projects identified for construction within the Lower Garrison area include readiness centers, unit training facilities, cold storage structures and utility infrastructure.

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42UT139	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT140	U-07-HO-0055	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT141	U-07-HO-0055	Lithic Scatter	Eligible Criterion D	No Hist. Properties Affected (avoidance)
42UT0703	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible	No Hist. Properties Affected
42UT0704	U-90-NP-0219	Early 20 th Century Farmstead	Not Eligible (destroyed)	No Hist. Properties Affected
42UT0705	U-90-NP-0219 U-07-HO-0055 U-13-UV-0007	Saratoga Canal	Not Eligible	No Hist. Properties Affected
42UT0706	U-90-NP-0219	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT0946	U-07-HO-0055	Utah Lake Distributing Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT0947	U-06-HO-0116 U-07-HO-0055	Provo Reservoir Canal	Eligible Criterion A	No Adverse Effect (MOA; #13-0193)
42UT1497	U-06-ST-1079	Lithic Scatter	Not Eligible	No Hist. Properties Affected
42UT1556	U-07-HO-0055	Trash Scatter	Not Eligible	No Hist. Properties Affected
42UT1757	U-13-UV-0007	Salt Lake & Utah Railroad	Eligible Criteria A/B	No Adverse Effect

42UT704 was also associated with the farmstead, and was reported to contain a building foundation and farm equipment. The site was determined ineligible for listing on the NRHP, and destroyed during construction of the driving range. Site 42UT705 represents a segment of the Saratoga Canal, and was determined ineligible for listing on the NRHP. Site 42UT706 is a low density lithic scatter which was determined ineligible for listing on the NRHP. Given that Sites 42UT703 through 42UT706 are not eligible for listing on the NRHP, the project will result in a finding of No Historic Properties Affected for these sites.

Chairman Howell Letter
February 6, 2014
Page 3

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The UTNG considered the presence of these sites, and determined that the Camp Williams Development Master Planning Project will result in an overall finding of No Adverse Effect provided site protection measures outlined above for Site 42UT141 (development buffer/avoidance) are implemented. If you have any comments or concerns with this project, we request that you contact us at the number below. At your request, UTNG staff will be available to meet with you to discuss any concerns you might have. Please be assured that we will maintain strict confidentiality about certain types of information regarding traditional religious and/or cultural historic properties that might be affected by this proposed undertaking. Please feel free to contact me at (801) 432-4097 or shaunnelson@utah.gov to answer any questions or provide any additional information. Thank you for your attention to this project notification and any comments you may have.

Sincerely,



Shaun R. Nelson
Cultural Resources Manager

Enclosure: Camp Williams Lower Garrison Development Master Plan Map

cc: Betsy Chapoose, Cultural Rights and Protection Director, Ute Indian Tribe

MEMORANDUM FOR RECORD

SUBJECT: Tribal Notification of the Camp Williams Lower Garrison Development Master Plan, Utah County, Utah.

1. The Utah National Guard (UTNG) mailed notification letters regarding the subject project to the Northwstern Band of the Shoshone Nation, Confederated Tribes of Goshute Reservations, Skull Valley Band of Goshute Indians, Ute Indian Tribe, and Paiute Indian Tribe of Utah on Febreuary 6, 2014.
2. The letter was essentially a follow-up letter given that the project was discussed in some detail during the Utah National Guard, Hill Air Force Base, and Dugway Proving Ground American Indian Meeting in August of 2013. Representatives from each of the Tribes referenced above were in attendance. These representatives indicated there were no concerns regarding the project at that time. Additionally, no comments were received in response to the notification letters.
3. Direct any questions to the undersigned at (801) 432-4097.



Shaun R. Nelson
Cultural Resources Program Manager

APPENDIX E

U.S. Fish and Wildlife IPaC Trust Resource Report

South Garrison Infrastructure

IPaC Trust Resource Report

Generated December 02, 2015 02:10 PM MST

This report is for informational purposes only and should not be used for planning or analyzing project-level impacts. For projects that require FWS review, please return to this project on the IPaC website and request an official species list from the Regulatory Documents page.



US Fish & Wildlife Service

IPaC Trust Resource Report



Project Description

NAME

South Garrison Infrastructure

PROJECT CODE

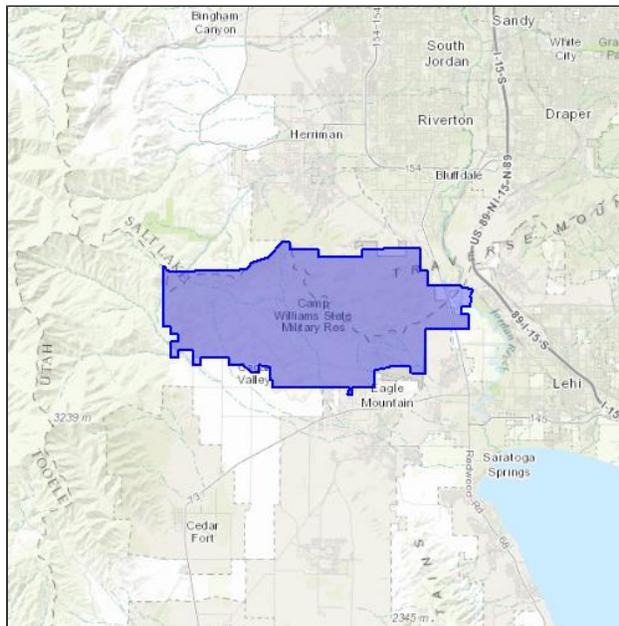
KCWEY-7CALF-GCTJI-4IEWY-7S5ISU

LOCATION

Salt Lake and Utah counties, Utah

DESCRIPTION

No description provided



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

Utah Ecological Services Field Office

2369 West Orton Circle, Suite 50

West Valley City, UT 84119-7603

(801) 975-3330

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an official species list on the Regulatory Documents page.

Birds

Yellow-billed Cuckoo *Coccyzus americanus* Threatened

CRITICAL HABITAT

There is **proposed** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06R>

Fishes

June Sucker *Chasmistes liorus* Endangered

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E050>

Flowering Plants

Ute Ladies'-tresses *Spiranthes diluvialis* Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=Q2WA>

Mammals

Canada Lynx *Lynx canadensis* Threatened

CRITICAL HABITAT

There is **final** critical habitat designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A073>

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

<p>American Bittern <i>Botaurus lentiginosus</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3</p>	Bird of conservation concern
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008</p>	Bird of conservation concern
<p>Black Rosy-finch <i>Leucosticte atrata</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0J4</p>	Bird of conservation concern
<p>Black Swift <i>Cypseloides niger</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FW</p>	Bird of conservation concern
<p>Brewer's Sparrow <i>Spizella breweri</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HA</p>	Bird of conservation concern
<p>Burrowing Owl <i>Athene cunicularia</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0NC</p>	Bird of conservation concern
<p>Calliope Hummingbird <i>Stellula calliope</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0K3</p>	Bird of conservation concern
<p>Cassin's Finch <i>Carpodacus cassinii</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0J6</p>	Bird of conservation concern
<p>Eared Grebe <i>Podiceps nigricollis</i> Season: Breeding</p>	Bird of conservation concern
<p>Ferruginous Hawk <i>Buteo regalis</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06X</p>	Bird of conservation concern

Flammulated Owl <i>Otus flammeolus</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DK	
Fox Sparrow <i>Passerella iliaca</i>	Bird of conservation concern
Season: Breeding	
Golden Eagle <i>Aquila chrysaetos</i>	Bird of conservation concern
Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DV	
Greater Sage-grouse <i>Centrocercus urophasianus</i>	Bird of conservation concern
Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06W	
Lewis's Woodpecker <i>Melanerpes lewis</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HQ	
Loggerhead Shrike <i>Lanius ludovicianus</i>	Bird of conservation concern
Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FY	
Long-billed Curlew <i>Numenius americanus</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B06S	
Olive-sided Flycatcher <i>Contopus cooperi</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0AN	
Peregrine Falcon <i>Falco peregrinus</i>	Bird of conservation concern
Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FU	
Pinyon Jay <i>Gymnorhinus cyanocephalus</i>	Bird of conservation concern
Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0I0	
Sage Thrasher <i>Oreoscoptes montanus</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0ID	
Short-eared Owl <i>Asio flammeus</i>	Bird of conservation concern
Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD	
Snowy Plover <i>Charadrius alexandrinus</i>	Bird of conservation concern
Season: Breeding	
Swainson's Hawk <i>Buteo swainsoni</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B070	
Virginia's Warbler <i>Vermivora virginiae</i>	Bird of conservation concern
Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0IL	

Western Grebe *aechmophorus occidentalis*

Bird of conservation concern

Season: Breeding

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0EA>**Williamson's Sapsucker** *Sphyrapicus thyroideus*

Bird of conservation concern

Season: Breeding

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0FX>**Willow Flycatcher** *Empidonax traillii*

Bird of conservation concern

Season: Breeding

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F6>

Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Freshwater Emergent Wetland

PEMB	1.87 acres
PEMAh	0.632 acre
PEMCh	0.121 acre

Freshwater Pond

PUBFx	0.44 acre
PUSCh	0.19 acre
PABFh	0.161 acre

Riverine

R2UBH	203.0 acres
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APPENDIX F

Emission Calculations for the Proposed Action

Appendix E- Summary Tables
UTARNG Camp Williams EA
Air Quality Emission Estimates

Operational Sources	Criteria Pollutant Emissions (tpy)									GHG Emissions (CO ₂ e)		
	SO ₂	NO _x	CO	PM ₁₀	PM _{2.5}	VOC	HAPs	Pb ¹	O ₃ ²	CO ₂	CH ₄	N ₂ O
Stationary Sources												
Generator (diesel)	0.002	3.6	0.8	0.06	0.06	0.10	0.007	-	3.70	155	0.16	0.38
Heating Units	0.029	2.4	4.0	0.36	0.36	0.26	0.09	0	2.6	5,159	2.4	2.9
Mobile Sources												
On-road Vehicles	0.022	2.80	43.0	0.09	0.05	1.92	0.10	-	4.72	1025	7.4	35.7
Total	0.05	8.8	47.9	0.51	0.48	2.28	0.20	-	11.1	6,340	10.0	39.0
PSD Thresholds	250	N/A	250	250	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Non-attainment NSR Thresholds	N/A	100	N/A	N/A	100	50	N/A	N/A	50	N/A	N/A	N/A
General Conformity <i>de minimis</i> Thresholds	100	100	100	100	100	50	N/A	25	50	N/A	N/A	N/A

Construction Sources	Criteria Pollutant Emissions (tpy)									GHG Emissions (CO ₂ e)		
	SO ₂	NO _x	CO	PM ₁₀	PM _{2.5}	VOC	HAPs	Pb ¹	O ₃ ²	CO ₂	CH ₄	N ₂ O
Construction Worker Commute	0.008	0.73	17.8	0.020	0.009	0.67	0.035	-	1.40	345	2.72	13.7
Paving (Asphalt)	-	-	-	-	-	0.008	-	-	0.008	-	-	-
Clearing	-	-	-	0	0	-	-	-	-	-	-	-
Equipment	0.126	1.72	0.79	0.13	0.12	0.15	0.036	-	1.87	165	-	-
Material Hauling	0.002	0.69	0.11	0.020	0.016	0.029	0.004	-	0.72	51.7	0.41	2.1
Site Grading Fugitive Dust Emissions	-	-	-	2.4	0.49	-	-	-	-	-	-	-
Construction Totals ⁵	0.14	3.14	18.7	2.6	0.65	0.85	0.074	-	3.99	562	3.13	15.7
General Conformity <i>de minimis</i> Thresholds	100	100	100	100	100	N/A	N/A	25	50	N/A	N/A	N/A

Notes:

¹ Lead is not a significant pollutant generated from this type of action. Any lead emissions generated from the proposed action have been included as part of the HAP emissions.

² Emission factors are not available for ozone. Emissions for NO_x and VOC are added to provide a conservative comparison for O₃.

³ PSD thresholds apply only to stationary sources.

⁴ For General Conformity applicability determination, project emissions should be compared based on the worst-case year for nonattainment pollutants. During the construction period, worst-case PM₁₀ and PM_{2.5} emissions will be generated from construction sources, while at full build-out, operational sources will have the worst case NO_x, CO, and VOC emissions due to the fuel combustion of employees, government, and visitor vehicles. Emissions would be expected to progressively decrease after build-out due to more fuel efficient vehicles.

⁵ Where site-specific information was unavailable, construction emission calculations have been based on scope of similar proposed air sources at US Army Reserve installations.

Appendix E- Table 1
UTARNG Camp Williams EA
Air Quality Emission Estimates-Heating Units

Building	Estimated Heat Input (MMBtu/hr)	Number at Location	Total Heat Input (MMBtu/hr)
Heating Units			
19th SFG Readiness Center	4.2	3	12.6
	4.8	2	9.6

NG Fired Heating Units (MMBtu/hr)	22.2
NG Fired Water Heaters (MMBtu/hr)	0.0
Fuel Type	Natural Gas
Maximum Operation Limit (hrs/yr) ^a	4,380
Heat Value of Fuel (Btu/scf) ^b	1,020

Notes:

^a Equipment assumed to operate for 12 hrs each day.

^b Natural Gas heating value (EPA AP-42, Appendix A, Miscellaneous Data & Conversion Factors)

Uncontrolled Potential to Emit Estimates					
Criteria Pollutant		Emission Factor ¹ (lb/10 ⁶ scf)	Emission Rate (lb/hr)	Emission Rate (lb/yr)	Annual Emissions (ton/yr)
Total Particulate Matter (PM) ²		7.60	0.17	724.50	0.36
Nitrogen Oxides (NOx) ³		50.00	1.09	4,766.47	2.38
Sulfur Oxides (SOx)		0.60	0.01	57.20	0.03
Carbon Monoxide (CO)		84.00	1.83	8,007.67	4.00
VOC		5.50	0.12	524.31	0.26
GHG Pollutant		Emission Factor ⁴ (kg/MMBtu)	Emission Rate (lb/hr)	Emission Rate (lb/yr)	Annual Emissions (tonne/yr)
Carbon Dioxide (CO2)		53.06	2,597	11,374,286	5,159
Methane (CH4)		0.001	0.05	214.37	0.10
Nitrous Oxide (N2O)		0.0001	0.00	21.44	0.01
Toxic Air Pollutant (Organic HAPs) ⁶	CAS No.	Emission Factor ⁵ (lb/10 ⁶ scf)	Emission Rate (lb/hr)	Emission Rate (lb/yr)	Annual Emissions (ton/yr)
3-Methylchloranthrene	56-49-5	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Benzene	71-43-2	2.10E-03	4.57E-05	0.200	1.00E-04
Benzo(a)pyrene	50-32-8	1.20E-06	2.61E-08	1.14E-04	5.72E-08
Formaldehyde	50-00-0	7.50E-02	1.63E-03	7.15	0.004
Hexane	110-54-3	1.80E+00	0.039	171.6	0.086
Naphthalene	91-20-3	6.10E-04	1.33E-05	0.058	2.91E-05
Toluene	108-88-3	3.40E-03	7.40E-05	0.324	1.62E-04
2-Methylnaphthalene	91-57-6	2.40E-05	5.22E-07	2.29E-03	1.14E-06
7,12-Dimethylbenz(a)anthracene		1.60E-05	3.48E-07	1.53E-03	7.63E-07
Acenaphthene	83-32-9	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Acenaphthylene	203-96-8	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Anthracene	120-12-7	2.40E-06	5.22E-08	2.29E-04	1.14E-07
Benzo(a)anthracene	56-55-3	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Benzo(b)fluoranthene	205-82-3	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Benzo(g,h,i)perylene	191-24-2	1.20E-06	2.61E-08	1.14E-04	5.72E-08
Benzo(k)fluoranthene	205-82-3	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Chrysene	218-01-9	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Dibenzo(a,h)anthracene	53-70-3	1.20E-06	2.61E-08	1.14E-04	5.72E-08
Dichlorobenzene	25321-22-6	1.20E-03	2.61E-05	0.114	5.72E-05
Fluoranthene	206-44-0	3.00E-06	6.53E-08	2.86E-04	1.43E-07
Flourene	86-73-7	2.80E-06	6.09E-08	2.67E-04	1.33E-07
Indeno(1,2,3-cd)pyrene	193-39-5	1.80E-06	3.92E-08	1.72E-04	8.58E-08
Phenanathrene	85-01-8	1.70E-05	3.70E-07	1.62E-03	8.10E-07
Pyrene	129-00-0	5.00E-06	1.09E-07	4.77E-04	2.38E-07
Organic HAPs Total				179.4	0.090

Toxic Air Pollutant Metals (Inorganic HAPs) ⁶	CAS No.	Emission Factor ⁷ (lb/10 ⁶ scf)	Emission Rate (lb/hr)	Emission Rate (lb/yr)	Emission Rate (ton/yr)
Arsenic	7440-38-2	2.00E-04	4.35E-06	0.019	9.53E-06
Barium	7440-39-3	4.40E-03	9.58E-05	0.419	2.10E-04
Beryllium	7440-41-7	1.20E-05	2.61E-07	1.14E-03	5.72E-07
Cadmium	7440-43-9	1.10E-03	2.39E-05	0.105	5.24E-05
Chromium	7440-47-3	1.40E-03	3.05E-05	0.133	6.67E-05
Cobalt	7440-48-4	8.40E-05	1.83E-06	0.008	4.00E-06
Copper	7440-50-8	8.50E-04	1.85E-05	0.081	4.05E-05
Lead		5.00E-04	1.09E-05	0.048	2.38E-05
Manganese	7439-96-5	3.80E-04	8.27E-06	0.036	1.81E-05
Mercury	7439-97-6	2.60E-04	5.66E-06	0.025	1.24E-05
Molybdenum	7439-98-7	1.10E-03	2.39E-05	0.105	5.24E-05
Nickel	7440-02-0	2.10E-03	4.57E-05	0.200	1.00E-04
Selenium	7782-49-2	2.40E-05	5.22E-07	2.29E-03	1.14E-06
Vanadium	1314-62-1	2.30E-03	5.01E-05	0.219	1.10E-04
Zinc	7440-66-6	2.90E-02	6.31E-04	2.76	1.38E-03
Inorganic HAPs Total				4.17	2.08E-03
HAPs Total				183.6	0.092

Notes:

¹ Ref: EPA AP-42, Section 1.4 Natural Gas Combustion (Small uncontrolled boilers) Tables 1.4-1 and 1.4-2

² PM emission factor is assumed to equal PM₁₀

³ Low Nox boilers are assumed as BACT for Camp Williams

⁴ Ref: U.S. EPA Mandatory Reporting of GHGs, Final Rule; Tables C-1 and C-2

⁵ Ref: Toxic Air Pollutants (EPA AP-42, Section 1.4 Natural Gas Combustion, Table 1.4-3).

⁶ Hazardous Air Pollutant (HAP) as defined by Section 112(b) of the Clean Air Act.

⁷ Ref: EPA AP-42 Metals from Natural Gas Combustion (Section 1.4 Natural Gas Combustion, Table 1.4-4; Lead from Table 1.4-2)

Calculation of Hourly PTE

Emission Factor (lb/MMBtu) x Total Heat Input (MMBtu/hr) = Emissions (lb/hr)

Calculation of Annual PTE

Potential GHG Emissions (lb/yr) = Hourly PTE (lb/hr) x 8760 (hr/yr)

Calculation of CO₂e

CO₂e (tonne/yr) = Annual PTE (tonnes/yr) x Global Warming Potential

Appendix E- Table 2
UTARNG Camp Williams EA
Air Quality Emission Estimates-Generators

Data Required to Calculate Emissions for Diesel Generators

Location of Unit	Generator Rating		Heat Input (MMBtu/hr)
	(kw)	(hp)	
19th SFG Readiness Center	1119	1500	10.5
	1119	1500	10.5
Total:	2237	3000	21

Uncontrolled Potential to Emit Estimates				
Criteria Pollutant	Emission Factor ⁴		Hourly PTE (lb/hr) ⁵	Annual PTE (ton/yr)
	Diesel ICSs > 600 hp (lb/hp-hr)	(lb/gal) ²		
CO	0.00550	0.110	16.50	0.825
NO _x	0.02400	0.479	72.00	3.600
PM ₁₀ ¹	0.00040	0.008	1.20	0.060
PM _{2.5} ¹	0.00040	0.008	1.20	0.060
SO _x ³	0.00001	0.000	0.03	0.002
VOC	0.00064	0.013	1.92	0.096
GHG Pollutant	Emission Factor ⁶ (kg/MMBtu)	Emission Rate (lb/hr)	Emission Rate (lb/yr)	Annual Emissions (tonne/yr)
Carbon Dioxide (CO ₂)	73.96	3,424	342,410	155
Methane (CH ₄)	0.003	0	13.89	0.01
Nitrous Oxide (N ₂ O)	0.0006	0	2.78	0.00
Toxic Air Pollutant	Emission Factor ⁷ (lb/MMBtu)	Backup Gen. Hourly PTE (lb/hr)	Annual PTE (lb/yr)	
Acetaldehyde	7.67E-04	0.016	1.611	
Acrolein	9.25E-05	0.002	0.194	
Benzene	9.33E-04	0.020	1.959	
1,3-Butadiene	3.91E-05	0.001	0.082	
Formaldehyde	0.001	0.025	2.478	
Naphthalene	8.48E-05	0.002	0.178	
Polycyclic Organic Matter	8.32E-05	0.002	0.175	
Propylene	0.003	0.054	5.418	
Toluene	4.09E-04	0.009	0.859	
Xylenes	2.85E-04	0.006	0.599	
Total (lb/yr):			13.55	
Total (tpy):			0.007	

Notes:

¹ All particulate matter is assumed to be less than 1.0 micrometer in diameter

² Calculated based on 139,600 Btu/gal and 7,000 Btu/hp-hr

³ SO_x emission factors (lb SO₂/gal fuel) were calculated as follows: 1.422 x wt pt sulfur content of the fuel (0.0015% ultra-low-sulfur-diesel)

⁴ Ref: EPA AP-42, Section 3.3, Table 3.3-1

⁵ Hourly potential to emit emissions are based on engines running simultaneously for 100 hr/yr

⁶ Ref: U.S. EPA Mandatory Reporting of GHGs, Final Rule; Tables C-1 and C-2

⁷ Ref: EPA AP-42, Section 3.3, Table 3.3-2

Calculation of Unit Rating

Unit rating (kw) x 1.341 (hp/kw) = Unit rating (hp)

Calculation of Heat Input

Generator Rating (kw) x 1.341 (hp/kw) x 7000 (BTU/hp-hr) / 1,000,000 (BTU/MMBtu) = Heat Input (MMBtu/hr)

Note: The emission factors in AP-42 take into account the approximately 35% efficiency of internal combustion engines.

Calculation of Hourly PTE:

Emission Factor (lb/hp-hr) x Generator Rating (hp) = Emissions (lb/hr)

Calculation of Annual PTE:

Backup Generator Hourly PTE (lb/hr) x 500 hr/yr + Other generator hourly PTE (lb/hr) x 8760 hr/yr = Emissions (lb/yr)

Appendix E- Table 3
UTARNG Camp Williams EA
Air Quality Emission Estimates- Government and Personal Onroad Vehicles

Data Required to Estimate Emissions from Government Owned Vehicles (GOVs) and Privately Owned Vehicles (POVs)

All vehicles must be classified and included under one of the following vehicle categories:

National Average Distribution from EPA Mobile 6 Model	
%	Vehicle Type
33.21	LDGV - Light-Duty Gasoline Vehicles (Passenger Cars)
40.18	LDGT12 - Light-Duty Gasoline Trucks (0 - 6,000 lbs GVWR)
13.7	LDGT34 - Light-Duty Gasoline Trucks (6,001 - 8,500 lbs GVWR)
3.58	HDGV - heavy duty gasoline-fueled vehicles with a GVWR exceeding 8500 pounds.
0	LDDV - Light-Duty Diesel Vehicles (Passenger Cars)
0.2	LDDT - Light-Duty Diesel Trucks (0 - 8,500 lbs GVWR)
8.57	HDDV - Heavy-Duty Diesel Vehicles (> 8,500 lbs GVWR)
0.53	MC - Motorcycles
0	HDGB - Gasoline Buses (School, Transit, and Urban)
0	HDDBT - Diesel Transit and Urban Buses
0	HDDBS - Diesel School Buses

Emission Factors can be obtained from the following

Emission factors for NOx, CO, VOC, SO₂, PM-10, PM-2.5, Acrolein, Acetaldehyde, 1,3-Butadiene, Benzene, Formaldehyde, and MTBE were obtained by running EPA's MOBILE 6.2 model. Mobile source emissions factors generally decrease with time; therefore the 2012 emission factors can conservatively be used for analyses in 2012 and later. Although MOVES2010 has been released, it requires many site-specific inputs and is not practical for estimating average emission factors.

Calculation of On-Site Mileage for Government Vehicles

Vehicle Type	# of vehicle	Total Mileage/Year	On-Site Mileage
All Vehicles ^a	161	100	16,100

Notes:

^a Unit vehicles assumed to drive 100 mi/yr on-site.

Calculation of Mileage for Privately Owned Vehicles (POVs)

Personnel Category	Estimated Vehicles Entering UTARNG/Year ¹				Miles/Vehicle/Day ⁴	Total POVs per Year	Total Miles per Year
	Daily	Weekend	Annual ³	% of Employees that drive to base			
Daily Employees	51	0	9,996	100%	9,996	51	499,800
Weekend Reservists ²	0	623	16,821	100%	16,821	623	1,682,100
TOTAL (POVs)							2,181,900

Notes:

¹ Standard vehicle miles traveled with no car pooling have been assumed for daily and weekend POVs.

² 24 weekends a year for Weekend Reservists commuting.

³ Annual vehicles based on 196 work-days per year for full-time employees; 27 days per year for Reservists. (From client correspondence)

⁴ Fifty miles has been assumed to be the average distance traveled by employees and reservists in their personal vehicles commuting to and from work and traveling onsite, assuming

One hundred miles has been assumed to be the average distance traveled by reservists in their personal vehicles commuting to and from the installation and traveling onsite, based on information obtained from the 2003 Report on the Reimbursement for Reservists' Travel Expenses. <http://armedservices.house.gov/comdocs/reports/2003exereports/03-08-12reservists.pdf>. Using this report data, calculations also assume \$0.36/mile and 40 mi/hr driving speed to determine average distance traveled each month.

Calculation of Criteria Pollutant Emission Rates

Vehicle Category	Modeled Year	Number of Vehicles	Annual Mileage	Fleet Vehicle Criteria Emission Factors (gm/mile)						Fleet Vehicle HAP Emission Factors (mg/mile)						
				CO	VOC	NO _x	SO ₂	PM-10	PM-2.5	Acrolein	Acetaldehyde	1,3-Butadiene	Benzene	Formaldehyde	MTBE	
Government Owned Vehicles (GOVs)																
All Vehicles*	2012	161	16,100	17.80	0.793	1.16	0.0091	0.038	0.023	0.527	3.522	3.107	26.892	8.933	0.044	
Privately Owned Vehicles (POVs) - Daily Employees				2012 Year Emission Factors												
All Vehicles*	2012	51	499,800	17.80	0.793	1.16	0.0091	0.038	0.023	0.527	3.522	3.107	26.892	8.933	0.044	
Weekend Reservists				2012 Year Emission Factors												
All Vehicles*	2012	623	1,682,100	17.80	0.793	1.16	0.0091	0.038	0.023	0.527	3.522	3.107	26.892	8.933	0.044	

*National Average Vehicle mix from EPA. Emissions factors run in Mobile 6.2 for 2012. Assumptions documented here:

Winter Assumptions:Speed: 25 MPH/ Max Min Temp:14.3 29.6 /FUEL RVP: 14.3/ DIESEL SULFUR: 15.

Summer Assumptions:Speed: 25 MPH/ Max Min Temp:73.5 93.6 /FUEL RVP: 8.7/ DIESEL SULFUR: 15.

Used winter scenario emissions factors as worst case.

Vehicle Category	Modeled Year	Number of Vehicles	Annual Mileage	Actual Criteria Pollutant Emissions						Actual HAP Emissions						
				CO	VOC	NO _x	SO ₂	PM-10	PM-2.5	Acrolein	Acetaldehyde	1,3-Butadiene	Benzene	Formaldehyde	MTBE	
Government Owned Vehicles (GOVs)																
All Vehicles*	2012	161	16,100	630	28.1	41	0.32	1.36	0.80	0.019	0.125	0.11	0.95	0.32	0.002	
Privately Owned Vehicles (POVs) - Daily Employees																
All Vehicles*	2012	51	499,800	19,567	872	1,275	10.01	42.11	24.96	0.579	3.873	3.42	29.57	9.82	0.048	
Weekend Reservists																
All Vehicles*	2012	623	1,682,100	65,853	2,935	4,293	33.7	142	84.0	1.95	13.03	11.50	99.5	33.06	0.163	
TOTAL EMISSIONS (lb/yr)				86,050	3,835	5,609	44.0	185.2	109.8	2.55	16.91	14.91	129.1	42.88	0.211	
TOTAL EMISSIONS (tpy)				43.0	1.92	2.80	0.022	0.093	0.055	1.27E-03	0.008	0.007	0.065	0.021	0.000	

Calculation of Annual Actual Emissions

Emission Factor (gm/mile) x Annual Mileage x 0.0022 (lb/gm) = Actual Emissions (lb/yr)

Calculation of Greenhouse Gas Emissions

Vehicle Category	Average Model Year ⁽¹⁾	Number of Vehicles ⁽²⁾	Annual On-Base Mileage	GHG Emission Factors (gm/mile) ⁽³⁾			Actual GHG Emissions (lb/yr)			Actual GHG Emissions (tonnes/yr)			Actual GHG Emissions (CO ₂ e)			
				CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	
Government Owned Vehicles (GOVs)																
LDGT12	2012	129	12,900	479	0.152	0.064	13,605	4,302	1,813	6.17	0.002	0.001	6.17	0.049	0.245	
HDDV	2012	32	3,200	1,615	0.005	0.005	11,371	0.036	0.034	5.2	0.000	0.000	5.2	0.000	0.005	
GOVs Total Emissions							24,976.38	4.34	1.847	11.3	0.002	0.001	11.3	0.049	0.250	
Privately Owned Vehicles (POVs) - Daily Employees																
LDGV	2012	51	499,800	368	0.136	0.050	404,638	148.99	55.42	184	0.068	0.025	184	1.69	7.5	
Daily POV Total Emissions							#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	184	1.69	7.5
Privately Owned Vehicles (POVs) - UTA (Weekend) Employees																
LDGV	2012	207	558,625	368	0.136	0.050	452,263	166.53	61.94	205.2	0.076	0.028	205.2	1.89	8.4	
LDGT12	2012	250	675,868	479	0.152	0.064	712,824	225.42	95.01	323.4	0.102	0.043	323.4	2.56	12.8	
LDGT34	2012	85	230,448	625	0.152	0.064	316,612	76.86	32.40	143.7	0.035	0.015	143.7	0.87	4.4	
HDBG	2012	22	60,219	875	0.236	0.132	115,975	31.21	17.45	52.6	0.014	0.008	52.6	0.35	2.4	
LDDT	2012	1	3,364	599	0.001	0.001	4,430	0.01	0.01	2.0	0.000	0.000	2.0	0.00	0.0	
HDDV	2012	53	144,156	785	0.005	0.005	249,021	1.62	1.52	113.0	0.001	0.001	113.0	0.02	0.2	
MC	2012	3	8,915	177	0.067	0.007	3,479	1.32	0.14	1.6	0.001	0.000	1.6	0.01	0.0	
Weekend POV Total Emissions							1,854,605	503.0	208.5	841	0.228	0.095	841	5.71	28.2	
POV Total Emissions							#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	1,025	7.40	35.7
TOTAL EMISSIONS							#REF!	#REF!	#REF!	#REF!	#REF!	#REF!	1,036	7.4	35.9	

(1) Average Vehicle Model Year for GOVs is the average of GOV model years in each vehicle category.

(2) Vehicle distribution has been assumed.

(3) Source: CO₂ emission factors from Air Emissions Factor Guide to Air Force Mobile Sources, AFCEE, December 2009, Appendix A; Emission Factors for CH₄ and N₂O for On-Road Vehicles, from U.S. EPA Inventory of Greenhouse Gas Emissions and Sinks 1990 - 2009, Annex 3, Table A-101, April 2011. Assumed oxidation catalyst controls for gasoline vehicles.

Calculation of GHG Annual Actual Emissions

Actual Emissions (lb/yr) = Emission Factor (gm/mile) x Annual On-Base Mileage x 0.0022 (lb/gm)

Actual Emissions (metric tons/yr) = Actual Emissions (lb/yr) / (2.205 lb/kg) / (1000 kg/metric ton)

Appendix E- Table 4
UTARNG Camp Williams EA
Air Quality Emission Estimates- Construction

Construction Worker Assumptions ¹					Pollutant Emission Factors ² (g/VMT)						GHG Emission Factors (g/mi)			GHG Global Warming Potential			HAP Emission Factors (mg/mile)					
Estimated Daily Commute Distance	Number of workers	Daily Commute Miles ⁴	Months of Construction	Total Miles per Project	CO	NO _x	VOC	PM ₁₀	PM _{2.5}	SO ₂	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	Acrolein	Acetaldehyde	1,3-Butadiene	Benzene	Formaldehyde	MTBE
Construction Worker ³	20	60	24	720,000	22.5	0.92	0.84	0.025	0.011	0.009	479	0.152	0.064	1	25	298	0.44	2.90	3.2725	30.8	6.56	0.0475
					Pollutant Emissions (tons/year)						GHG Emissions (tonnes/yr)			GHG Emissions (CO ₂ e)			HAP Emissions (Pounds)					
					CO	NO _x	VOC	PM ₁₀	PM _{2.5}	SO ₂	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	Acrolein	Acetaldehyde	1,3-Butadiene	Benzene	Formaldehyde	MTBE
					17.83	0.73	0.67	0.020	0.009	0.008	345	0.109	0.046	345	2.72	13.69	0.70	4.60	5.19	48.8	10.41	0.08

- Notes:**
- ¹ Number of construction workers, daily construction commute, and months of construction estimated based on similar project performed by US Army Reserve.
 - ² Emission factors from Mobile 6: <http://www.epa.gov/otaq/ap42.htm> Appendix H: Light Duty Vehicles and Light Duty Trucks, Model Year 2012. Average of 75% vehicles(LDGT12) and 25% trucks(LDGT34). Winter Assumptions:Speed: 50 MPH/ Max Min Temp:14.3 29.6 /FUEL RVP: 14.3/ DIESEL SULFUR: 15.
 - ³ Construction worker total miles calculated by: multiplying daily commute hours x months of construction x 25 (days per month).
 - ⁴ Daily commute number includes both directions of commute

Paving (Asphalt) Emissions

Acres to be paved	6.2	
Emission Factor ^a	2.62	lbs ROG (VOC) /acre
Emissions from asphalt paving	16.2	lbs VOC
	0.008	Tons VOC

- Note:
- ^a Using equation in AP-42, Section 4.5, emissions factor From URBEMIS

Clearing Emissions

Acres to be worked	10.7	Months of Construction	24	
	Wind Dust ¹ (ft ²)	TSP Emission Factor ² (lb/ft ²)	Emission Control Efficiency ³ (%)	Windblown Dust PM10 Emissions - Controlled (tons)
	466,092	2.52E-05	66	0.048
PM10 Emissions	0.048			
PM2.5 Emissions ⁴	0.010			

- Notes:**
- ¹ No excavation or filling activities are anticipated to be conducted for the Proposed Action
 - ² Windblown dust factor from "Improvement of Specific Emission Factors" prepared for South Coast AQMD by Midwest Research Institute, March 1996, assuming 100% of TSP is PM10.
 - ³ Control efficiency based on "Control of Open Fugitive Dust Sources", USEPA, 9/88. Proposed project measures to minimize dust will primarily include the utilization of water trucks to dampen the project area under dry-dusty conditions.
 - ⁴ PM2.5 emissions were calculated following the SCAQMD Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology, October 2006. For construction fugitive dust sources, 20.8% of the PM10 would be PM2.5.

Material Hauling

					Pollutant Emission Factors (g/VMT)						GHG Emission Factors (g/mi)			GHG Global Warming Pot.			HAP Emission Factors (mg/mile)					
Material Hauling	Tons of Material	# of Trips	Miles per Trip	Avg. Speed *	CO	NO _x	VOC	PM ₁₀	PM _{2.5}	SO ₂	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	Acrolein	Acetaldehyde	1,3-Butadiene	Benzene	Formaldehyde	MTBE
To Site	10	1800	30	50	0.931	5.803	0.24	0.1685	0.1315	0.0132	479	0.152	0.064	1	25	298	0.88	7.23	2.64	2.64	19.64	0
From Site	10	1800	30	50	0.931	5.803	0.24	0.1685	0.1315	0.0132	479	0.152	0.064	1	25	298	0.88	7.23	2.64	2.64	19.64	0
					Pollutant Emissions (Annual tons)						GHG Emissions (CO ₂ e)			HAP Emissions (Pounds)								
					CO	NO _x	VOC	PM ₁₀	PM _{2.5}	SO ₂	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	Acrolein	Acetaldehyde	1,3-Butadiene	Benzene	Formaldehyde	MTBE
To Site					0.055	0.35	0.014	0.010	0.008	7.85E-04	25.8	0.008	0.003	25.8	0.20	1.03	0.10	0.86	0.31	0.31	2.34	0.000
From Site					0.055	0.35	0.014	0.010	0.008	7.85E-04	25.8	0.008	0.003	25.8	0.20	1.03	0.10	0.86	0.31	0.31	2.34	0.000
Total					0.11	0.69	0.029	0.020	0.016	0.002	51.7	0.016	0.007	51.7	0.41	2.05	0.21	1.72	0.63	0.63	4.68	0.000

Notes:
 *HDDV- Emissions factors run in Mobile 6 for CY2012. Assumptions documented here: Winter Assumptions:Speed: 50 MPH/ Max Min Temp:14.3 29.6 /FUEL RVP: 14.3/ DIESEL SULFUR: 15.
 Conservatively assumes 3 trip a day each way for 24 months

Site Grading Fugitive Dust Emissions

	PM Tons/Acre-month ^d	Acres worked	Months ³	Emission (Ton PM10)	Emission (ton PM2.5) ²
Average Conditions	0.22	10.7	1	2.35	0.489632

Note:
 Algorithm: Acres of Area Graded * Months of Grading * EF = Emissions from Grading
¹ URBEMIS2007 for Windows Users' Guide Appendix A – Construction Emissions, Page A–6, average case emissions factor, 0.22 ton/acre-month
² PM2.5 emissions were calculated following the SCAQMD Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology, October 2006. For construction fugitive dust sources, 20.8% of the PM10 would be PM2.5.
³ One month of grading work assumed to clear site prior to construction.
⁴ Contractor will perform best management practices (i.e. watering) to control dust emissions from site grading.

Demolition Emissions

No demolition activities are anticipated to be conducted as a result of this action.

Appendix E- Table 5
UTARNG Camp Williams EA
Air Quality Emission Estimates- Diesel Off-road Construction Vehicles

Emissions Estimate Based on Engine Rating and Operating Time (All Diesel-fired Equipment)

Equipment Data										Emission Parameters		Emissions Factors ⁴						Annual Actual Emissions							
Vehicle/Equipment Type ^a	Equipment Category	Engine Type	Number of Units	Engine Rating (Per Unit) (hp)	Model Year	Model Year Site (S)/ Default (D)	Operating Time (Per unit) (hr/yr)	Total Operating Time (hr/yr)	Source for Operating Time Site (S)/ Default (D) ¹	Load Factor ² (Percent of Max. Power)	SCC	VOC Emission Factor (g/hp-hr)	CO Emission Factor (g/hp-hr)	NOx Emission Factor (g/hp-hr)	PM-10 Emission Factor (g/hp-hr)	PM-2.5 Emission Factor (g/hp-hr)	SO ₂ Emission Factor (g/hp-hr)	CO ₂ Emission Factor (g/hp-hr)	VOC Emissions (lb/yr)	CO Emissions (lb/yr)	NOx Emissions (lb/yr)	PM-10 Emissions (lb/yr)	PM-2.5 Emissions (lb/yr)	SO ₂ Emissions (lb/yr)	CO ₂ Emissions (lb/yr)
Backhoe	Construction	Reciprocating	1	95	2009	D	600	600	D	21%	2270002066	1.55	6.64	7.08	1.07	1.03	0.46	662	40.9	175	187	28.2	27.2	12.14	17,473
Concrete Truck	Construction	Reciprocating	1	250	2009	D	600	600	D	59%	2270002051	0.29	1.66	5.11	0.26	0.25	0.37	536	56.6	324	997	50.7	48.8	72.2	104,596
Skid Steer Loader	Construction	Reciprocating	1	46	2009	D	600	600	D	21%	2270002072	2.20	8.88	7.26	1.41	1.37	0.48	689	28.1	113.5	92.8	18.0	17.5	6.13	8,806
Paver/Roller	Construction	Reciprocating	1	100	2009	D	600	600	D	59%	2270002003	0.41	2.16	4.86	0.40	0.38	0.38	550	32.0	168.6	379.4	31.22	29.7	29.66	42,931
Clearing Equipment (Roller)	Construction	Reciprocating	1	100	2009	D	600	600	D	59%	2270002015	0.46	2.62	5.03	0.45	0.44	0.39	559	36	204.5	393	35.1	34.3	30.4	43,633.9
Delivery Trucks	Construction	Reciprocating	1	250	2009	D	600	600	D	59%	2270002051	0.29	1.66	5.11	0.26	0.25	0.37	536	56.6	323.9	997	50.7	48.8	72.2	104,596
Excavators	Construction	Reciprocating	1	94	2009	D	600	600	D	59%	2270002030	0.60	3.65	5.42	0.60	0.58	0.40	577	44	268	398	44.0	42.6	29.3	42,336.6
TOTAL EMISSIONS (Pounds)																		294	1,578	3,444	258	249	252.1	364,373	
TOTAL EMISSIONS (TONS)																		0.15	0.79	1.72	0.13	0.12	0.126	165	

Notes:

Annual Actual Emissions (lb/yr) = Engine Rating (hp) x Loading Factor (%) x Operating Time per Unit (hr/yr) x Number of Units x Emission Factor (g/hp-hr) x Conversion Factor (0.002205 lb/g)

^a Typical off-road equipment usage for construction is assumed based on similar project performed by US Army Reserve.

¹ Operating times and engine ratings are based on similar construction projects.

² Load factor is the fraction of available power at which the engine normally operates. Source for Load Factor, SCC, and Emission Factors: Air Emissions Factor Guide to Air Force Mobile Sources, AFCEE, December 2009.

³ SCC obtained EPA Nonroad Model

⁴ Emission factors are obtained from U.S. Environmental Protection Agency, NonRoad Model. Run July 25, 2011 for the year 2012 for the entire nation. Assumptions: Fuel RVP: 8.0, O wt. %: 0.0, Gas Sulfur %: 0.0339, Diesel Sulfur %: 0.05, Marine Diesel Sulfur %: 0.2637, CNG/LPG Sulfur % 0.003, Min Temp 60, Max Temp 84, Ave Temp 75, Stage II Control %: 0.0

HAP Emissions From Diesel

HAP constituent emission factors obtained from U.S. Environmental Protection Agency, SPECIATE Version 4.0, Speciation for Medium Duty Trucks (Profile # 4674), Speciation based on tests performed in 1996. Speciation for construction equipment was not available so the medium duty truck speciation has been used here to <http://www.epa.gov/ttn/chief/software/speciate/index.html>

Constituent CAS	Name	Factor (Weight% VOC)	Actual (lb/yr)
106-99-0	1,3-butadiene	0.12	0.35
540-84-1	2,2,4-trimethylpentane	0.47	1.39
75-07-0	Acetaldehyde	15.94	46.9
107-02-8	Acrolein (2-propenal)	1.30	3.81
71-43-2	Benzene	1.05	3.07
100-41-4	Ethylbenzene	0.18	0.53
50-00-0	Formaldehyde	8.51	25.0
108-38-3; 106-42-3	M & p-xylene	0.89	2.61
78-93-3	Methyl ethyl ketone (2-butanone)	2.86	8.41
91-20-3	Naphthalene	0.24	0.69
95-47-6	O-xylene	0.32	0.93
123-38-6	Propionaldehyde	5.34	15.7
108-88-3	Toluene	1.52	4.46
132-64-9	Dibenzofuran, also noted as "DBZFUR"	0.011	0.032
98-86-2	Acetophenone	1.95	5.72
Total:			71.0

APPENDIX G

Record of Nonapplicability

**Record of Non-Applicability (RONA)
Concerning the General Conformity Rule (40 CFR Part 51)**

Name of Project: SPECIAL FORCES GROUP READINESS CENTER

Location: CAMP WILLIAMS, UTAH

The Proposed Action is the development of a Special Forces Group Readiness Center and road and utility infrastructure, located in the Lower Garrison area of Camp Williams, Utah.

Conformity under the Clean Air Act, Section 176, has been evaluated for the proposed action in accordance with 40 CFR Part 51. The requirements of this rule are not applicable to this action because the total direct and indirect emissions of the nonattainment area pollutants, ozone (precursors VOC and NO_x) and PM_{2.5} associated with the proposed action would be below the de minimis thresholds.

For General Conformity applicability determination, project emissions should be compared based on the worst-case year, which for all nonattainment pollutants, except PM_{2.5}, is a full year of operational activities: VOC: 2.3 tons per year (tpy), NO_x: 8.8 tpy. For PM_{2.5}, emissions are based on worst case year of construction emissions of 0.65 tpy. All emissions would fall below the de minimis threshold established at 40 CFR 51 of 50 tpy for ozone (precursors VOC and NO_x), 50 tpy for VOC, and 100 tpy for NO_x and PM_{2.5}.



Robert Price
Environmental Resources Management
Utah National Guard

13 August 2015

Date

