
Hill Air Force Base, Utah

Environmental Assessment for Demolition of Building 2148 and Construction of a New Facility

Contract No: F42650-03-D-0002
Task Order 0006

Prepared for:
Environmental Management Directorate
Hill Air Force Base, Utah

Prepared by:



4001 South 700 East, Suite 700
Salt Lake City, UT 84107-2177

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ES.0 Executive Summary

ES.1 Purpose and Need

ES.1.0.1. The Air-to-Surface Munitions Directorate (WM) at Hill Air Force Base (HAFB) is required by the Air Force (HQAF) to sustain the AGM-130 and GBU-15 family of weapon systems. The Air Force is proposing to transfer the Precision Strike System Program Office (SPO) from Eglin AFB, Florida to HAFB, Utah. To mirror current SPO capabilities, the WM Directorate requires a suitable facility to incorporate current depot maintenance functions (i.e., explosives maintenance) in support of the weapons systems.

ES.1.0.2. There are no existing structures at HAFB that would allow the immediate transition of the workload. The proposed action is necessary to ensure that support functions for the two weapons systems can be transferred to and performed at HAFB.

ES.2 Selection Criteria and Alternatives Considered

ES.2.0.1. There are no existing structures at HAFB that would allow the immediate transition of the workload. Therefore, the following alternatives were evaluated to determine the most efficient construction process:

- **Proposed Action:** Demolish Building 2148 and construct a new facility (Building 2149).
- **Alternative 1:** Construct a new facility east of the existing Building 2148.
- **Alternative 2:** Construct a new facility across road to the west of the existing Building 2148.
- **No-Action Alternative:** Cease maintenance functions for the AGM-130 and GBU-15 family of weapon systems.

ES.2.0.2. Based on the impact to other users, reduced Net Explosive Weight (NEW) storage capacity, and lack of utilities, Alternatives 1 and 2 have been dismissed from further consideration.

ES.2.0.3. The selection criteria established to evaluate the Proposed Action and the No-Action Alternative were as follows: mission accomplishment and minimization of environmental impacts.

ES.3 Impact on Resources

ES.3.0.1. Based on the evaluation of environmental consequences in this Environmental Assessment (EA), the Proposed Action would not cause negative environmental effects. Furthermore, air, water, and soil resources would not be negatively impacted by the Proposed Action.

ES.3.0.2. Due to current and future land use of HAFB, the No-Action Alternative would have no impact on the environment.

ES.4 Conclusion

ES.4.0.1. The findings of this EA indicate that the Proposed Action to demolish Building 2148 and construct a new facility (Building 2149) will not have significant adverse effects on the human environment or any of the environmental resources as described in this EA. Therefore, issuance of a Finding of No Significant Impact (FONSI) is justified and an Environmental Impact Statement (EIS) is not required.

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Acronyms

649 MUNS	649 th Munitions Squadron
AFOSH	Air Force Occupational and Environmental Safety, Fire Protection, and Health Program
CAA	Clean Air Act
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	United States Environmental Protection Agency
FONSI	Finding of No Significant Impact
HAFB	Hill Air Force Base
HQAF	Headquarters Air Force
mm	Millimeter
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NEW	Net Explosive Weight
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PM ₁₀	Particulate Matter Less Than 10 Microns in Diameter
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SOP	Standard Operating Procedure
SPO	Precision Strike System Program Office
UAC	Utah Administrative Code
WM	Air-to-Surface Munitions Directorate

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1.0 Purpose and Need for the Proposed Action

1.1 Purpose of and Need for the Proposed Action

1.0.0.1. The purpose of this Environmental Assessment (EA) is to support the decision-making process associated with the National Environmental Policy Act of 1969 (NEPA). It addresses the proponent's (i.e., ALC Munitions Directorate [OO-ALC/WMMG]) Proposed Action and reasonable alternatives to the Proposed Action. This EA has been developed to analyze and document potential environmental consequences associated with the proposed activities. If the analyses presented in the EA indicate that implementation of the Proposed Action would not result in significant environmental or socioeconomic impacts, then a Finding of No Significant Impact (FONSI) will be issued (Appendix A). If significant environmental effects result that cannot be mitigated as insignificant, an Environmental Impact Statement (EIS) will be required or the Proposed Action will be abandoned and no action will be implemented.

1.0.0.2. The Air-to-Surface Weapons Munitions Directorate (WM) at Hill Air Force Base (HAFB) is required by the Air Force (HQAF) to sustain the AGM-130 and GBU-15 family of weapon systems. The Air Force is proposing to transfer the Precision Strike System Program Office (SPO) from Eglin AFB, Florida to HAFB, Utah. To mirror current SPO capabilities, the WM Directorate requires a suitable facility to incorporate current depot maintenance functions (i.e., explosives maintenance) in support of the weapons systems.

1.0.0.3. There are no existing structures at HAFB that would allow the immediate transition of the workload. The proposed action is necessary to ensure that support functions for the two weapons systems can be transferred to and performed at HAFB.

1.2 Location of the Proposed Action

1.2.0.1. HAFB is located in northern Utah, approximately 25 miles north of Salt Lake City and 5 miles south of Ogden, as shown in Figure 1-1. HAFB occupies approximately 6,700 acres in Davis and Weber counties. The western boundary of the Base is formed by Interstate Highway 15, and the southern boundary is State Route 193. The privately owned Davis-Weber irrigation canal bounds the northern and northeastern perimeters, and the southeastern boundary borders a municipal incineration facility and open farmland adjacent to private residences.

1.2.0.2. Building 2148 is located in the northern portion of HAFB (see Figure 1-1). Under the proposed action, the existing building would be demolished, and a new structure (Building 2149) would be built on the same site.

1.3 Applicable Regulatory Requirements

1.3.0.1. This section addresses several regulatory environmental programs that apply to the Proposed Action. Areas where these programs influence the decisionmaking process include environmental policy, human health and safety, air quality, soil and water quality, biological resources, land and cultural resources, and environmental justice/protection of children.

1.3.1 Environmental Policy

1.3.1.1. NEPA requires that environmental information be made available to public officials and citizens prior to any action being taken. The NEPA process is intended to help public officials make decisions that are based on an understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.

1.3.1.2. Air Force Instruction 32-7061 implements the Air Force Environmental Impact Analysis Process. It describes specific tasks and procedures to ensure compliance with NEPA.

1.3.2 Human Health and Safety

1.3.2.1. The Occupational Safety and Health Act of 1970 requires employers to provide safe and healthful working conditions. The purpose of this act is to provide an enforcement mechanism for minimizing occupational hazards and exposure.

1.3.2.2. Air Force Instruction 91-301 [*Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program*] details the AFOSH program. The purpose of the AFOSH program is to minimize loss of Air Force resources and to protect Air Force personnel from occupational deaths, injuries, or illnesses by managing risks.

1.3.3 Air Quality

1.3.3.1. The 1970 Clean Air Act (CAA) and its 1990 Amendments establish Federal policy to protect and improve the nation's air quality while protecting human health and the environment. The CAA requires that adequate steps be taken to control the release of air pollutants and prevent significant deterioration in air quality. The Utah Department of Environmental Quality, Division of Air Quality has enforcing power on behalf of the United States Environmental Protection Agency (EPA).

1.3.3.2. The proposed action occurs in an area that is in attainment status for all National Ambient Air Quality Standards (NAAQS). Therefore, the federal conformity requirements of 40 CFR 93.153 do not apply, and a conformity analysis is not required.

1.3.4 Soil and Water Quality

1.3.4.1. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The Water Quality Act of 1987 established a program for the identification of waters affected by toxic pollutants and implementation of specific controls to reduce those toxins.

1.3.4.2. Air Force Instruction 21-7064, *Integrated Natural Resources Management*, explains how to manage natural resources on Air Force property in compliance with federal, state, and local standards. This instruction gives installations a framework for documenting and maintaining Air Force natural resource programs.

1.3.5 Biological Resources

1.3.5.1. The Endangered Species Act requires Federal agencies that fund, authorize, or implement actions to avoid jeopardizing the continued existence of Federally-listed threatened or endangered species, or destroying or adversely affecting their critical habitat. Federal agencies must evaluate the effects of their actions through a set of defined procedures, which may include preparation of a Biological Assessment and formal consultation with the U.S. Fish and Wildlife Service.

1.3.5.2. The purpose of the Endangered Species Act is to establish conservation methods for both endangered and threatened species and the ecosystems upon which the endangered and threatened species depend. This act also requires all Federal agencies to cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species.

1.3.6 Land and Cultural Resources

1.3.6.1. The National Historic Preservation Act (NHPA) of 1966 provides the principal authority used to protect historic properties, establishes the National Register of Historic Places (NRHP), and defines, in Section 106, the requirements for Federal agencies to consider the effects of an action on properties on or eligible for listing on the National Register.

1.3.6.2. Protection of Historic and Cultural Properties (36 CFR 800 [1986]) provides an explicit set of procedures for Federal agencies to meet their obligations under the NHPA, including resource inventory and consultation with State Historic Preservation Officers.

1.3.6.3. The Archeological Resources Protection Act of 1979 ensures that Federal agencies protect and preserve archeological resources on Federal or Native American lands and establishes a permitting system to allow legitimate scientific study of such resources.

1.3.6.4. Air Force Instruction 21-7065, *Cultural Resources Management*, sets guidelines for protecting and managing cultural resources in the United States and United States territories and possessions.

1.3.7 Environmental Justice/Protection of Children

1.3.7.1. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, is designed to focus the attention of federal agencies on the human health and environmental conditions in minority and low-income communities. It requires federal agencies to adopt strategies to address environmental justice concerns within the context of agency operations.

1.3.7.2. Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, directs Federal agencies to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that policies, programs,

activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

1.4 Scope and Organization of the Document

1.4.0.1. The scope of this EA is to define issues that potentially impact demolition and construction of Building 2148 at HAFB. The following potential issues are presented and discussed in detail in Sections 3.0 and 4.0 of this EA: aircraft operations, noise, air quality, safety and occupational health, earth resources, water resources, infrastructure/utilities, hazardous materials and wastes, biological resources, cultural resources, and socioeconomic resources.

1.4.0.2. The administrative record for this project contains all scoping information, site inspection notes, and correspondence compiled during the preparation of this EA. The Administrative Record for this project is available on request from the HAFB Environmental Management Directorate.

1.4.0.3. The remainder of this document is organized as follows. The Proposed Action, Alternatives 1 and 2, and the No-Action Alternative are described and evaluated in Section 2.0. The existing conditions and environmental resources in the area to be affected by the alternatives are described in Section 3.0. Section 4.0 contains the basis for the comparison of the environmental consequences of each of the alternatives. A list of preparers and their responsibilities is provided in Section 5.0. A list of agencies and persons contacted during the preparation of this EA, including the topic of consultation and date contacted, is provided in Section 6.0. References used in the preparation of this EA are listed in Section 7.0.

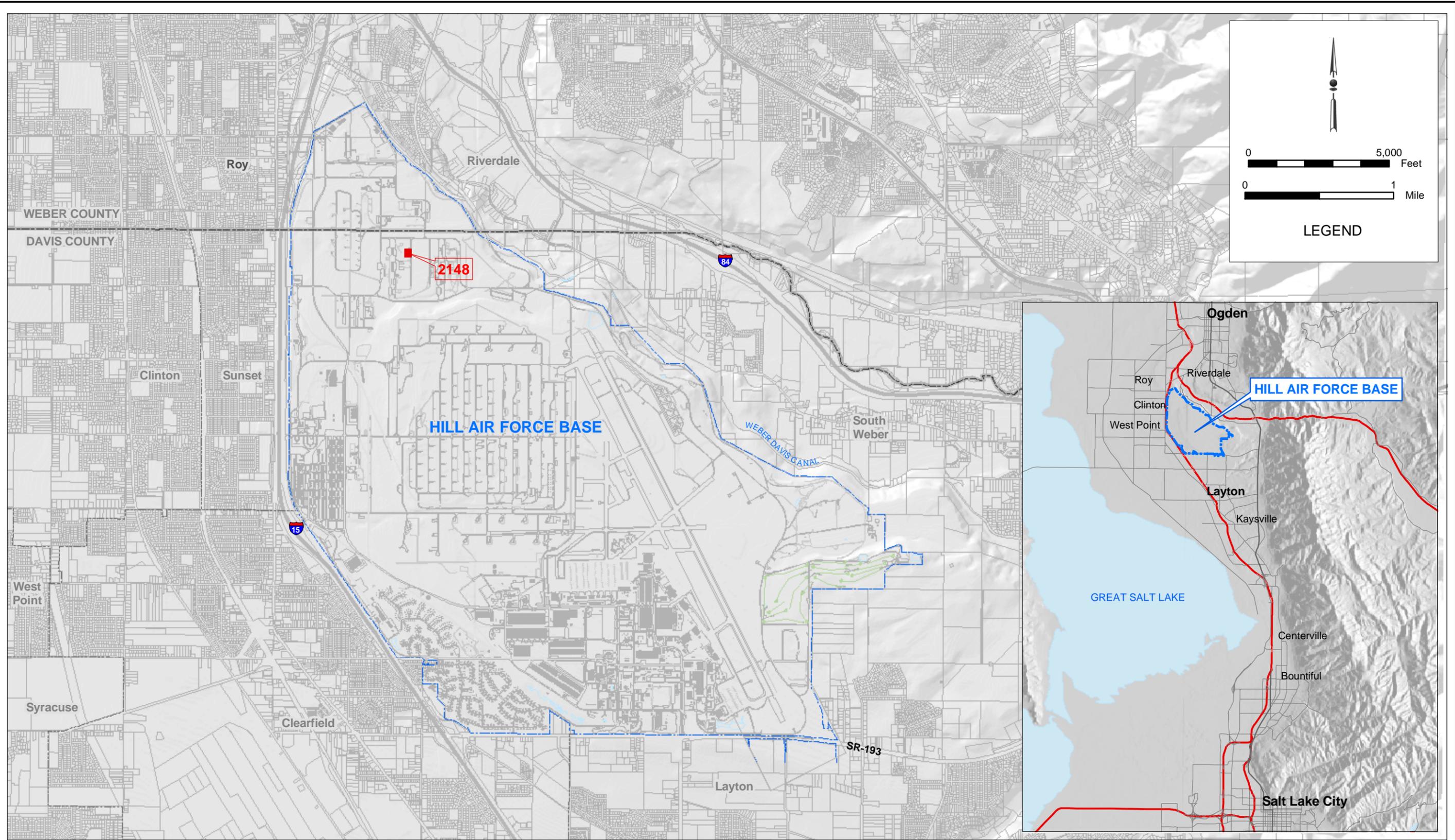


FIGURE 1-1
LOCATION MAP
BUILDING 2148
HILL AIR FORCE BASE, UTAH

2.0 Description of the Proposed Action and Alternatives

2.1 Introduction

2.1.0.1. The Proposed Action, Alternatives 1 and 2, and the No-Action Alternative are described in this section. The selection criteria used to compare each of the alternative actions are also described. A discussion of the environmental consequences of each action is presented in Section 4.0.

2.2 History of the Formulation of Alternatives

2.2.0.1. The WM Directorate at HAFB is required by the HQAF to sustain the AGM-130 and GBU-15 family of weapon systems. The Air Force is proposing to transfer the SPO from Eglin AFB, Florida to HAFB, Utah. To mirror current SPO capabilities, the WM Directorate requires a suitable facility to incorporate current depot maintenance functions (i.e., explosives maintenance) in support of the weapons systems.

2.2.0.2. There are no existing structures at HAFB that would allow the immediate transition of the workload. Therefore, the following alternatives were evaluated to determine the most efficient construction process:

- **Proposed Action:** Demolish Building 2148 and construct a new facility (Building 2149).
- **Alternative 1:** Construct a new facility east of the existing Building 2148.
- **Alternative 2:** Construct a new facility across road to the west of existing Building 2148.
- **No-Action Alternative:** Cease maintenance functions for the AGM-130 and GBU-15 family of weapon systems.

2.3 Identification of Alternatives Eliminated from Further Consideration

2.3.1 Alternative 1— Construct a New Facility East of Existing Building 2148

2.3.1.1. Alternative 1 involves constructing a new facility east of existing Building 2148. There is currently not a building in this location, and the site is readily accessible by existing roads. However, construction at this site would limit the amount of NEW that could be stored within the new facility based on its proximity to two other users in the area. Additionally, no utilities are currently available in this location, and utility expansion would need to occur prior to facility construction. Based on the impact to other users, reduced

NEW storage capacity, and lack of utilities, this alternative has been dismissed from further consideration.

2.3.2 Alternative 2— Construct a New Facility Across Road to the West of Existing Building 2148

2.3.2.1. Alternative 2 involves constructing a new facility across the road to the west of existing Building 2148. There is currently not a building in this location, and the site is readily accessible by existing roads. However, construction at this site would limit the amount of NEW that could be stored within the new facility based on its proximity to six other users in the area. Additionally, no utilities are currently available in this location, and utility expansion would need to occur prior to facility construction. Based on the impact to other users, reduced NEW storage capacity, and lack of utilities, this alternative has been dismissed from further consideration.

2.4 Detailed Description of the Proposed Action

2.4.0.1. The Proposed Action would consist of demolishing existing Building 2148, which was constructed in 1941. This structure is currently used for storage by the 649th Munitions Squadron (649 MUNS). Storage will be relocated to another area. The existing building is dilapidated and is not capable of supporting the Proposed Action in its current configuration.

2.4.0.2. A portion of the berm to the south of the existing building would be removed. Additional construction activities for the new structure (Building 2149) would involve establishing connections to the existing steam, water, sewer, and electric lines that already exist in the building's vicinity. The new 50-by-90-foot structure would be built thirty three feet west of the road and will face north.

2.4.0.3. There would be approximately one delivery and pick up per week. Transportation vehicles would utilize existing roads.

2.4.0.4. Approximately ten staff would be needed to support this workload. This number would be comprised of both existing staff and new contractors.

2.5 Description of the No-Action Alternative

2.5.0.1. Under the No-Action Alternative, the SPO at Eglin AFB would need to transfer their present functions and workload to another maintenance base. However, HAFB has been identified by the AF as the sustainment base for air-to-surface precision guided munitions. Therefore, there is no other base that could house the explosive maintenance facility for the AGM-130 and GBU-15 family of weapon systems. If the proposed action were to not take place, the workload would not be supported and maintenance of these particular types of weapon systems would cease.

2.6 Comparison Matrix of Environmental Effects of All Alternatives

2.6.0.1. A summary of the environmental effects of each alternative is presented in Table 2-1. These potential impacts are discussed in detail in Section 4.0.

2.7 Identification of the Preferred Alternative

2.7.0.1. The selection criteria established to evaluate the Proposed Action and the No-Action Alternative are as follows:

- **Mission Accomplishment.** The action will not impact the accomplishment of the HAFB mission to provide depot repair, modification, and maintenance support to major aircraft weapons systems.
- **Minimization of Environmental Impacts.** The action will provide minimal environmental impact.

2.7.0.2. A summary comparison of each action against these selection criteria is presented in Table 2-2. Based on this comparison, only the Proposed Action meets the selection criteria.

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TABLE 2-1

Comparison Matrix of Environmental Effects

Environmental Assessment for Demolition of Building 2148 and Construction of New Facility

Resource Category	Proposed Action (Demolish Building 2148 and Construct a New Facility [Building 2149])	No-Action Alternative (Cease Maintenance Functions for the AGM-130 and GBU-15 Family of Weapon Systems)
<u>Aircraft Operations</u>	No Effect	No Effect
<u>Noise</u>	Minimal Effect; Short-term construction noise	No Effect
<u>Air Quality</u>	Minimal Effect; Short-term fugitive dust	No Effect
<u>Safety and Occupational Health</u>	No Effect	No Effect
<u>Earth Resources</u>	No Effect	No Effect
Geology		
Topography		
Soils		
<u>Water Resources</u>	No Effect	No Effect
Surface Water		
Groundwater		
<u>Infrastructure/Utilities</u>	No Effect	No Effect
Sanitary Sewer		
Potable Water		
Solid Waste Management		
Storm Drainage		
Transportation Systems		
Electricity/Natural Gas		
<u>Hazardous Materials and Wastes</u>	No Effect	No Effect
Hazardous Materials		
Hazardous Waste		

TABLE 2-1 (CONTINUED)

Comparison Matrix of Environmental Effects

Environmental Assessment for Demolition of Building 2148 and Construction of New Facility

Resource Category	Proposed Action (Demolish Building 2148 and Construct a New Facility [Building 2149])	No-Action Alternative (Cease Maintenance Functions for the AGM-130 and GBU-15 Family of Weapon Systems)
<u>Biological Resources</u>	No Effect	No Effect
Vegetation		
Wildlife		
Threatened and Endangered Species		
Wetlands		
Floodplains		
<u>Cultural Resources</u>	Negative Effect	No Effect
Historical Resources	Building 2148 is a historically significant structure. A MOA was signed by the SHPO and HAFB in September 2003.	
Archaeological Resources	Archeological monitoring may be performed following demolition activities.	
<u>Socioeconomic Resources</u>	Positive Effect	No Effect
	Additional staff needed to support maintenance function.	

NOTES: MOA – Memorandum of Agreement

SHPO – State Historic Preservation Office

TABLE 2-2
 Selection Criteria Evaluation Summary
Environmental Assessment for Demolition of Building 2148 and Construction of New Facility

Alternatives	Selection Criteria	
	Mission Accomplishment	Minimize Environmental Impacts
Proposed Action		
Demolish Building 2148 and Construct a New Facility	Yes	Yes
No-Action		
Cease Maintenance Functions for the AGM-130 and GBU-15 Family of Weapon Systems	No	Yes

3.0 Affected Environment

3.1 Introduction

3.1.0.1. The existing conditions in the areas to be affected by the Proposed Action and the environmental resources at HAFB are described in this section.

3.2 Installation Location and Current Mission

3.2.0.1. HAFB covers about 6,700 acres and is located on the Weber Delta, a terrace approximately 300 feet above the surrounding valley floor in Weber and Davis Counties. HAFB has been the site of military activities since 1920, when the western portion of what is now the Base was activated as the Ogden Arsenal, which is an Army Reserve Depot. In 1940 and 1941, four runways were built and the Ogden Air Depot was activated. During World War II, the Ogden Arsenal manufactured ammunition and was a distribution center for motorized equipment, artillery, and general ordnance. The Ogden Air Depot's primary operation was aircraft rehabilitation. In 1948, the Ogden Air Depot was renamed HAFB, and in 1955, the Ogden Arsenal was transferred from the U.S. Army to the U.S. Air Force. Since 1955, HAFB has been a major center for missile assembly and aircraft maintenance. Currently, HAFB is part of the Air Logistics Center, under the Air Force Materiel Command.

3.3 Description of the Affected Environment

3.3.0.1. This section presents a discussion of the resources present at HAFB and potential issues which must be considered prior to proceeding with the Proposed Action. This discussion will focus on the following areas: aircraft operations, noise, air quality, safety and occupational health, earth resources, water resources, infrastructure/utilities hazardous materials and wastes, biological resources, cultural resources, socioeconomic resources, and environmental justice.

3.3.1 Aircraft Operations

3.3.1.1. The Maintenance Directorate provides depot repair, modification, and maintenance support to major aircraft weapons systems, specifically the F-16 Fighting Falcon, A-10 Thunderbolt, C-130 Hercules, and the Peacekeeper and Minuteman Intercontinental Ballistic Missiles. The Maintenance Directorate also tests, repairs, manufactures, and modifies F-4, F-16, F-111, C-130, A-10, and B-2 aircraft (HAFB, 2003). HAFB does not use the location of the subject property for aircraft operations.

3.3.2 Noise

3.3.2.1. Engine noise from the testing and flight of aircraft is present throughout the day, although it is not persistent. In a typical year, more than 50,000 takeoffs and landings will be logged by locally based and transient aircraft (HAFB, 2003).

3.3.3 Air Quality

3.3.3.1. Air quality in the vicinity of HAFB (Davis and Weber Counties) is influenced by vehicles, refineries, the Davis County Burn Plant, aircraft operations, and other on- and off-Base industrial emissions. HAFB is located in both Davis and Weber counties and neither county is in complete compliance with the NAAQS. The EPA has designated Davis County as an attainment area for ozone. The City of Ogden, which is located in Weber County, has been designated as a non-attainment area for carbon monoxide and particulate matter less than 10 microns in diameter (PM₁₀), although the entire county does not carry this designation. The State of Utah is now re-evaluating the State Implementation Plan (SIP) that outlines the State of Utah's plan for meeting the current NAAQS. When the revised SIP and the associated state regulations are finalized, Davis County may become a nonattainment area for ozone.

3.3.4 Safety and Occupational Health

3.3.4.1. According to HAFB policy, all construction plans are reviewed (as appropriate) by HAFB safety, fire, and health services. At that time, any potential health concerns are reviewed with the contractor(s) performing the construction work. During construction, all construction personnel are required to comply with 29 Code of Federal Regulations (CFR) 1926, *Safety and Health Regulations for Construction*. Other worker health and safety concerns are addressed in Standard Operating Procedures (SOPs) and in the facility designs.

3.3.5 Earth Resources

3.3.5.1. Much of HAFB has been developed for a variety of industrial uses to support the HAFB mission. A small remnant of property located along the north end of Aspen Avenue near the western boundary of HAFB is used for gardens and farming by resident Base personnel. The location of the proposed addition is within a designated commercial area and is not currently developed for agricultural use.

3.3.6 Water Resources

3.3.6.1. **Surfacewater.** The Davis-Weber irrigation canal bounds the northern and northeastern perimeter of the base. Stormwater retention ponds are located throughout the base. However, none of these ponds are located in the area around the proposed project site. There are no surface water bodies in the immediate vicinity of the subject property.

3.3.6.2. **Groundwater.** To date, the groundwater beneath HAFB has not been formally classified under Utah Administrative Code (UAC) R317-6, Groundwater Quality Protection. However, based on the available groundwater quality data, the shallow groundwater would be designated as Class II – Drinking Water Quality based on State of Utah classification criteria. At sites under investigation and remediation by HAFB, regulated contaminant concentrations exceed groundwater quality standards, and the shallow aquifer would be classified as Class III – Limited Use Groundwater. The Sunset and Delta aquifers are located 300 and 600 feet below ground surface, respectively, and are presently used as drinking water sources. Both aquifers would be classified as Class IA – Pristine Groundwater. No contamination has been identified in either of the deeper aquifers (Isakson, 2003). Trace levels of methylene chloride have been identified in the area of the subject property at depths of 64 and 89 feet below ground surface (Smith, 2003).

3.3.7 Infrastructure/Utilities

3.3.7.1. The Base infrastructure consists of systems that support Basewide activities. Examples of Base infrastructure include: rail and other transportation facilities; industrial wastewater, stormwater, and sanitary sewer systems; fueling and defueling areas and facilities; electrical stations and power lines; surplus equipment and materials storage areas; and waste treatment or disposal areas. Structures in the vicinity of the subject property include roadways, waste systems for industrial wastewater, stormwater, and sanitary sewers, fuel storage areas, and power lines.

3.3.8 Hazardous Materials and Waste

3.3.8.1. Building 2148 is located in the 2100 Zone of HAFB. Historical operations in the 2100 Zone began in 1942 with the construction of the Ogden Arsenal West Loading Plant. The West Loading 4-20 Plant was designed as a munitions plant assembly line facility for manufacturing 37-millimeter (mm) anti-tank and armor-piercing shells. Many of the West Loading Plant buildings were service and storage magazines. Building 2148 was used for tracer and igniter composition preparation. No hazardous materials or petroleum products were identified at the subject property during the October 2003 site visit.

3.3.9 Biological Resources

3.3.9.1. **Flora.** HAFB is located in a geographic region that would typically support a mountain-brush type native plant community. Dominant vegetation in this plant community includes scrub oak (*Quercus gambelii*), big sagebrush (*Artemisia tridentata*), rabbit brush (*Chrysothamnus* sp.), and western wheatgrass (*Agropyron smithii*). However, much of HAFB has been developed, and the area is populated by introduced species. Only a small remnant of the native plant community occurs in the northern portion of the Base. Other microenvironments also exist at HAFB. One such environment is the stormwater retention basins that support vegetation associated with wetlands including sedge grasses (*Carex* sp.), sandbar willow (*Salix exigua*), and cattails (*Typha latifolia*). Although HAFB supports a broad variety of plant life, no threatened or endangered plant species have been identified (Moss, 2003).

3.3.9.2. The wildlife found at HAFB are common to mountain-brush habitat and the western United States. Wildlife are most frequently found in the relatively undisturbed northern area of the Base. Wildlife in this area consists of a variety of large and small mammals, birds, amphibians, and reptiles. Common residents include: mule deer (*Odocoileus hemionus*), fox (*Vulpes vulpes*), coyotes (*Canis latrans*), mice (*Peromyscus* sp.), shrews (*Sorex* sp.), weasels (*Mustela frenata*), cottontail (*Sylvilagus nuttalli*) and jack rabbits (*Lepus* sp.), lizards, pheasants (*Phasianus colchicus*), meadow larks (*Sturnella neglecta*), horned larks (*Eremophila alpestris*), magpies (*Pica pica*), and killdeer (*Charadrius vociferus*). Wildlife species found in the wetlands include mallard ducks (*Anas platyrhynchos*) and great blue herons (*Ardea herodias*).

3.3.9.3. One threatened species, the American bald eagle (*Haliaeetus leucocephalus*), and one endangered species, the willow flycatcher (*Empidonox traillii*) have been observed on HAFB. A list of all species observed on HAFB is provided in Appendix B. Bald eagles from the northern latitudes winter along streams and lakes throughout Utah and have been observed at the Weber River just north of the Base. Willow Flycatchers require dense

vegetation and water for their habitat. The proposed project location does not contain dense vegetation or a water source. Neither the American bald eagle or the Willow Flycatcher have been seen nesting at HAFB.

3.3.9.4. Table 3-1 indicates the State-listed species which inhabit Davis and Weber Counties and possibly HAFB. None of these species are known to inhabit the subject property.

3.3.10 Cultural Resources

3.3.10.1. Cultural resources are defined as any prehistoric or historic district, site, building, structure, place, or object considered important to a culture, subculture, or community for scientific, traditional, or religious reasons.

3.3.10.2. Cultural resources can be divided into three basic categories: archaeological, architectural, and traditional cultural properties. Archaeological resources are where prehistoric and historic activities measurably altered the earth (e.g., pit houses, hearths) or where physical remains were deposited (e.g., projectile points, pottery, cans, bottles). Architectural resources include standing buildings, dams, canals, bridges, or other structures. In general, architectural resources must be at least 50 years old to be considered eligible for inclusion in the NRHP. Structures less than 50 years old may warrant inclusion in the NRHP if they are exceptionally significant or have the potential to gain future significance (e.g., Cold War era structures). Traditional resources are those associated with cultural practices and beliefs of a living community that are rooted in its history and are important in maintaining the continuing cultural identity of the community.

3.3.10.3. The NHPA, Section 106 (36 CFR 800) and Air Force Instruction 32-7065 require the Air Force to protect historic properties. Currently, there are no NRHP listed properties on HAFB. Over three hundred eligible and potentially eligible historic architectural resources have been identified within HAFB (Hirschi, 2003). The majority of these structures date to the late 1930s and early 1940s and include some Cold War era properties. There are two proposed NRHP districts: the Hill Field Historic District, and the Ogden Arsenal Historic District.

3.3.10.4. There have been no significant discoveries of archaeological resources on Hill Air Force Base. A few prehistoric artifacts have been recovered, but were isolated enough to negate the need for further excavation or site designation. Additionally, no traditional cultural properties have been identified at HAFB.

3.3.10.5. Building 2148 was constructed in 1941 and has been determined eligible for the NRHP for its role in service to the Ogden Arsenal, particularly during World War II. It is also a contributing element to the proposed Ogden Arsenal Historic District. Building 2148 served a dual purpose and was used to prepare chemicals that were used in the production of 37-mm anti-tank ammunition as well as for storage of the manufactured munitions. The building is a one-story, hip-roofed building. The roof is surfaced with corrugated asbestos that is original to the building. Originally, this building contained several rooms accessed only from the exterior, with each room separated from the others by concrete firewalls. The three rooms on the south side are separated further from the rest of the building by an internal passage. These rooms contained the Blending and Tracer Components, with the Motor Room located in between. The two rooms across the north elevation were originally

used for Tracer and Ignition chemical storage. Next to these rooms are two large rooms, which face east and west and contained strontium grinding, drying, screening, and weighing room as well as an air conditioning equipment room. The remainder of the building contained small rooms that housed weighing, drying, and screening rooms for tracer and igniter components. Building surveys and assessments have been performed on Building 2148. Level I HABS/HAER documentation (HAER No. UT-84-AU) and a Utah State Historic Site Form was completed for Building 1946, which is identical in function and design to Building 2148 (Hirschi, 2003).

3.3.10.6. Demolition of Building 2148 constitutes an Adverse Effect under 36 CFR § 800, and therefore requires Hill AFB to enter into a Memorandum of Agreement (MOA) with the Utah State Historic Preservation Office (SHPO). A MOA between Hill AFB and SHPO was signed in September 2003, outlining appropriate strategies to mitigate the Adverse Effect caused by the demolition of Building 2148. This document is included in Appendix C.

3.3.10.7. If any cultural resources are observed in the area during any phase of construction, action in the immediate vicinity would stop, and the Inadvertent Discovery Procedures would be implemented with direction from the Hill AFB Cultural Resources Manager, and in accordance with the Hill AFB Draft Integrated Cultural Resources Management Plan.

3.3.10.8. If this plan is followed, no significant adverse impacts to cultural resources are expected from the construction activities of the Proposed Action. Under the No-Action Alternative, no construction or demolition activity would take place. Therefore, there are no expected adverse impacts to cultural resources associated with either the Proposed Action or the No-Action Alternative.

3.3.11 Socioeconomic Resources

3.3.11.1. Presently, the HAFB work force comprises approximately 22,000 civilian, military, and contractor personnel. More than 70 percent of the personnel at the base are civilian. The workforce at HAFB is drawn from throughout northern Utah (HAFB, 2003).

3.3.12 Environmental Justice

3.3.12.1. The percentage of residents below the poverty level in vicinity of the subject property based on the 2000 census is less than the State percentage. The percentages of minority residents and children in the vicinity are greater than the State percentage.

3.3.12.2. The maps contained in Appendix D (EPA, 2003) are centered on the subject property. These maps indicate that the entire area of the subject property is located in an area that is 0 to 10 percent minority (non-Caucasian) population. The maps also indicate that 0 to 10 percent of the population in the vicinity lives below poverty.

TABLE 3-1

Federal- and State-Listed Species in Davis and Weber Counties
Environmental Assessment for Demolition of Building 2148 and Construction of New Facility

Common Name	Scientific Name	Federal Status	State Status
BIRDS			
Bald Eagle	<i>Haliaeetus leucocephalus</i>	T	T
Southwestern Willow Flycatcher	<i>Empidonox traillii</i>	E	
Yellow-Billed Cuckoo	<i>Coccyzus americanus</i>	C	T
American White Pelican	<i>Pelecanus erythrorhynchos</i>		SD
Black Tern	<i>Chlidonias niger</i>		SP
Blue Grosbeak	<i>Guiraca caerulea</i>		SP/SD
Bobolink	<i>Dolichonyx oryzivorus</i>		SP/SD
Burrowing Owl	<i>Athene cunicularia</i>		SP
Caspian Tern	<i>Sterna caspia</i>		SP
Ferruginous Hawk	<i>Buteo regalis</i>		T
Grasshopper Sparrow	<i>Ammodramus savannarum</i>		SP/SD
Lewis' Woodpecker	<i>Melanerpes lewis</i>		SP/SD
Long-Billed Curlew	<i>Numenius americanus</i>		SP/SD
Short-Eared Owl	<i>Asio flammeus</i>		SP
Greater Sage-Grouse	<i>Centrocercus urophasianus</i>		SP/SD
Mountain Plover	<i>Charadrius montanus</i>		SP/SD
Northern Goshawk	<i>Accipiter gentilis</i>		SP
Sharp-Tailed Grouse	<i>Tympanuchus phasianellus</i>		SD
FISH			
June Sucker	<i>Chasmistes liorus</i>	E	
Bluehead Sucker	<i>Catostomus discobolus</i>		SP
Common Yellowthroat	<i>Geothlypis trichas</i>		SP
Least Chub	<i>lotichthys phlegethontis</i>		CS
Bonneville Cutthroat Trout	<i>Oncorhynchus clarki utah</i>		CS

TABLE 3-1
 Federal- and State-Listed Species in Davis and Weber Counties
Environmental Assessment for Demolition of Building 2148 and Construction of New Facility

Common Name	Scientific Name	Federal Status	State Status
AMPHIBIANS			
Columbia Spotted Frog	<i>Rana luteiventris</i>		CS
Western Toad	<i>Bufo boreas</i>		SP
MOLLUSKS			
Ogden Rocky Mountainsnail	<i>Oreohelix peripherica wasatchensis</i>	C	
Lyrate Mountainsnail	<i>Oreohelix haydeni</i>		SP/SD
REPTILES			
Milksnake	<i>Lampropeltis triangulum</i>		SP
PLANTS			
Ute Ladies' Tresses	<i>Spiranthes diluvialis</i>	T	
MAMMALS			
Gray Wolf	<i>Canis lupus</i>	T – Extirpated	
Canada Lynx	<i>Lynx canadensis</i>	T	
Wolverine	<i>Gulo gulo</i>		T
Brazilian Free-Tailed Bat	<i>Tadarida brasiliensis</i>		SP/SD
Townsend's Big-Eared Bat	<i>Corynorhinus townsendii</i>		SP/SD

Source: Utah Division of Wildlife Resources, 2003; Utah Natural Heritage Program Biological and Conservation Database, 2002

TABLE 3-1

Federal- and State-Listed Species in Davis and Weber Counties
Environmental Assessment for Demolition of Building 2148 and Construction of New Facility

Common Name	Scientific Name	Federal Status	State Status
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Notes:

Key to Federal Status:

C – A taxon for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threats to justify it being a “candidate” for listing as endangered or threatened.

E – A taxon that is listed by the U.S. Fish and Wildlife Service as “endangered” with the possibility of worldwide extinction.

T – A taxon that is listed by the U.S. Fish and Wildlife Service as “threatened” with becoming endangered.

T – Extirpated – A “threatened” taxon that is “extirpated” and considered by the U.S. Fish and Wildlife Service to no longer occur in Utah.

Key to State Status:

CS – Conservation Species: any wildlife species or subspecies, except those species currently listed under the Endangered Species Act as Threatened or Endangered, that meets the state criteria of Endangered, Threatened, or of Special Concern, but is currently receiving sufficient special management under a Conservation Agreement developed and/or implemented by the state to preclude its listing.

SD – Species of Special Concern: any wildlife species or subspecies that occurs in limited areas and/or numbers due to a restricted or specialized habitat.

SP – Species of Special Concern: any wildlife species or subspecies that has experienced a substantial decrease in population, distribution and/or habitat availability.

SP/SD – Species of Special Concern: any wildlife species or subspecies that has both a declining population and a limited range.

T – State Threatened Species: Any wildlife species or subspecies which is likely to become an endangered species within the foreseeable future throughout all or a significant part of its range in Utah or the world.

4.0 Environmental Consequences

4.1 Introduction

4.1.0.1. The environmental consequences of demolishing the existing Building 2148 and constructing a new facility (Building 2149) are discussed in this section. This section also contains a discussion of the environmental consequences of the No-Action Alternative.

4.2 Change in Current Mission

4.2.0.1. No changes in the current mission of HAFB would occur as a result of the proposed construction. If the No-Action Alternative were adopted, the ability to support the AGM-130 and GBU-15 weapons systems workloads would not be recognized. The weapons systems would have to be transferred to another base. However, HAFB has been designated by the Air Force as the sole location for sustainment of air-to-surface precision guided munitions. This designation impedes the ability to transfer this workload to another location.

4.3 Description of the Effects of All Alternatives on the Affected Environment

4.3.0.1. The following paragraphs discuss the resources present within the vicinity of the subject property and potential impacts on these resources if the Proposed Action or the No-Action Alternative were implemented. This discussion focuses on the following areas: aircraft operations, noise, air quality, safety and occupational health, earth resources, water resources, infrastructure/utilities, hazardous materials and wastes, biological resources, cultural resources, socioeconomic resources, and environmental justice.

4.3.1 Aircraft Operations

4.3.1.1. Since the new facility does not influence aircraft, the proposed construction would not have an effect on aircraft operations.

4.3.2 Noise

4.3.2.1. No long-term exposure to additional noise would occur as a result of implementing the Proposed Action. Any noise generated during construction or renovation activities would be limited to areas immediately adjacent to the site. Any potential health concerns for site workers or program participants exposed to excessive noise during these activities would need to be addressed in the construction/remodeling plans. No additional noise would be generated by the No-Action Alternative.

4.3.3 Air Quality

4.3.3.1. Implementing the Proposed Action or Alternative 1 would not cause long-term effects on air quality. Dust may be generated during construction and renovation activities, but control measures will be used to keep dust to a minimum. The No-Action Alternative would not impact air quality.

4.3.4 Safety and Occupational Health

4.3.4.1. Construction and renovation activities conducted as part of the Proposed Action should be reviewed with the contractor(s) performing the work to assess potential safety and health concerns. Additional worker health and safety issues would need to be reviewed by HAFB safety, fire, and health services. The No-Action Alternative would not have an impact on safety and occupational health.

4.3.5 Earth Resources

4.3.5.1. Construction of the Proposed Action or the No-Action Alternative would not have an impact on earth resources.

4.3.6 Water Resources

4.3.6.1. **Surface Water.** Neither the Proposed Action or the No-Action Alternative would have an effect on surface water quality in the vicinity of the subject property.

4.3.6.2. **Groundwater.** Neither the Proposed Action or No-Action Alternative would have an effect on groundwater resources.

4.3.7 Infrastructure/Utilities

4.3.7.1. There is the potential for construction activities associated with the Proposed Action to impact existing utilities in the area. To prevent a negative impact from occurring (i.e., causing a break in the storm sewer, etc.), the presence and location of sanitary sewers, stormwater sewers, potable water lines, transportation systems, electrical, or natural gas lines (as appropriate) in the vicinity of these properties must be confirmed by Red Stakes, at (801) 777-1995. In addition, any construction projects on HAFB property must involve the participation of the Community Planner, Mr. Bert Whipple, who can be reached by phone at (801) 777-1171. The No-Action Alternative would have no impact on utilities. The proposed action will tie in to existing utilities. No new construction of utility lines is necessary to support the proposed action.

4.3.8 Hazardous Materials and Waste

4.3.8.1. Neither construction of the Proposed Action or the No-Action Alternative would generate hazardous materials or wastes.

4.3.9 Biological Resources

4.3.9.1. Based on the current scope of activities planned for the area, negative impacts to biological resources are not anticipated. The Proposed Action and the No-Action Alternative would have no impact on biological resources.

4.3.10 Cultural Resources

4.3.10.1. Demolition of Building 2148 constitutes an Adverse Effect under 36 CFR § 800, and therefore, requires Hill AFB to enter into a MOA with the Utah SHPO. A MOA between HAFB and the SHPO was signed in September 2003, outlining appropriate strategies to mitigate the Adverse Effect caused by the demolition of Building 2148. This document is included in Appendix C.

4.3.10.2. If any cultural resources are observed in the area during any phase of construction, action in the immediate vicinity would stop, and the Inadvertent Discovery Procedures would be implemented with direction from the Hill AFB Cultural Resources Manager, and in accordance with the Hill AFB Draft Integrated Cultural Resources Management Plan.

4.3.10.3. If this plan is followed, no significant adverse impacts to cultural resources are expected from the construction activities of the Proposed Action. Under the No-Action Alternative, no construction or demolition activity would take place. Therefore, there are no expected adverse impacts to cultural resources associated with either the Proposed Action or the No-Action Alternative.

4.3.11 Socioeconomic Resources

4.3.11.1. Under the Proposed Action, additional jobs would be available to contract personnel. New employment opportunities would not be available under the No-Action Alternative.

4.3.12 Environmental Justice

4.3.12.1. Although the population of Davis and Weber counties represents approximately 19.5 percent of the population of the State of Utah, the percentage of residents below the poverty level in this area is less than the State percentage. Therefore, no minority or low-income groups or populations of children would be disproportionately impacted by the Proposed Action. The No-Action Alternative would have no effect on environmental justice issues.

4.4 Unavoidable Adverse Environmental Impacts

4.4.0.1. The discussion of potential environmental impacts presented in Section 4.3 indicates that neither the Proposed Action or No-Action Alternative would create unavoidable adverse environmental impacts.

4.5 Compatibility of the Proposed Action and Alternatives with the Objectives of Federal, Regional, State, and Local Land Use Plans, Policies, and Controls

4.5.0.1. HAFB is an active military facility. The current mission of HAFB is to provide depot repair, modification, and maintenance support to major aircraft weapon systems, and

there is no anticipated land use change for HAFB. Therefore, implementing the proposed alternatives would not impact current land use plans.

4.6 Relationship Between the Short-Term Use of the Environment and Long-Term Productivity

4.6.0.1. Support of the AGM-130 and GBU-15 weapons systems is necessary to ensure continuation of these programs. The proposed action is necessary to provide a location where maintenance and support can continue. Therefore, implementing the proposed alternative would positively impact the long-term productivity of the Base.

4.7 Irreversible and Irretrievable Commitments of Resources

4.7.0.1. The proposed alternatives would not cause an irreversible and irretrievable commitment of resources.

5.0 List of Preparers

5.0.0.1. The following CH2M HILL personnel were involved in the preparation of this EA:

- Staci Hill, P.E., Project Manager
- Laurel Redenbaugh, Project Engineer
- Gary Colgan, P.G., C.G.W.P., Senior Reviewer

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6.0 List of Persons and Agencies Consulted

The following agencies and persons were consulted during the preparation of this EA:

- CH2M HILL, Associate Hydrogeologist, Todd L. Isakson (801) 281-2426 – discussed groundwater contamination at HAFB. October 2003.
- Hill Air Force Base, 75th Services Division, Services Project Officer, Peter A. Villafana (801) 777-3667 – onsite discussion of proposed subject. October 2003.
- Hill Air Force Base, 75th Civil Engineer Squadron, Project Manager, Richard Nehring (801) 775-3369 – onsite discussion of proposed action and clarification of project alternatives. October 2003.
- Hill Air Force Base, Environmental Management Directorate, Project Engineer, Shannon Smith (801) 775-6913 – discussed groundwater and wastewater at the subject property. October 2003.
- Hill Air Force Base, Environmental Management Directorate, Natural Resources GIS Specialist, Sanford Moss (801) 775-6972 – discussed nest locations at HAFB and flora and fauna of HAFB. October 2003
- Hill Air Force Base, Environmental Management Directorate, Natural Resources Manager, Marcus Blood (801) 775-4618 – discussed endangered species at HAFB. October 2003.
- Hill Air Force Base, Cultural Resources Program Manager, Sam Johnson (801) 775-3653 – requested cultural resource information. October 2003.
- Hill Air Force Base, Archaeologist, Jaynie Hirschi (801) 775-6920 – requested archaeological survey and historic building information. October 2003.
- United States Environmental Protection Agency, Office of Enforcement, Compliance and Environmental Justice Region VIII, Nancy Reish (303) 312-6040 – requested environmental justice information. October 9, 2003.

To fully comply with NEPA regulations, a copy of this Proposed Final Environmental Assessment is usually made available for public review and comment.

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7.0 References

- Hill Air Force Base (HAFB), 2003. 2003 Base Guide and Telephone Directory. San Diego, California. 2003.
- Hirschi, 2003. Personal Communication. Jaynie Hirschi, HAFB Environmental Management Archaeologist. October, 2003.
- Isakson, 2003. Personal Communication and e-mail. Todd Isakson, CH2M HILL Associate Hydrogeologist. October, 2003.
- Smith, 2003. Personal Communication and e-mail. Shannon Smith, HAFB EM Project Engineer, October, 2003.
- United States Environmental Protection Agency (EPA), 2003. *Environmental Justice Geographic Assessment Tool [online]*. Available: <http://www.epa.gov/enviro/ej>. October, 2003.
- Utah Division of Wildlife Resources, 2003. *County Lists of Utah's Federally Listed Threatened (T), Endangered (E), and Candidate (C) Species*. July 2003.
- Utah Natural Heritage Program Biological and Conservation Database. *Utah's State Listed Species by County*. October 2002.

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APPENDIX A

Finding of No Significant Impact

Finding of No Significant Impact

Purpose and Need

The Air-to-Surface Munitions directorate (WM) at HAFB is required by the Air Force (HQAF) to sustain the AGM-130 and GBU-15 family of weapon systems. The Air Force is proposing to transfer the Precision Strike System Program Office (SPO) from Eglin AFB, Florida to HAFB, Utah. To mirror current SPO capabilities, the WM Directorate requires a suitable facility to incorporate current depot maintenance functions (i.e., explosives maintenance) in support of the weapons systems.

There are no existing structures at Hill Air Force Base (HAFB) that would allow the immediate transition of the workload. The proposed action is necessary to ensure that support functions for the two weapons systems can be transferred to and performed at HAFB.

Selection Criteria and Alternatives Considered

There are no existing structures at HAFB that would allow the immediate transition of the workload. Therefore, the following alternatives were evaluated to determine the most efficient construction process:

- Proposed Action: Demolish Building 2148 and construct a new facility (Building 2149).
- Alternative 1: Construct a new facility east of the existing Building 2148.
- Alternative 2: Construct a new facility across road to the west of existing Building 2148.
- No-Action Alternative: Cease maintenance functions for the AGM-130 and GBU-15 family of weapon systems.

Based on the impact to other users, reduced Net Explosive Weight (NEW) storage capacity, and lack of utilities, Alternatives 1 and 2 have been dismissed from further consideration.

The selection criteria established to evaluate the Proposed Action and the No-Action Alternative were as follows: mission accomplishment and minimization of environmental impacts.

Impact on Resources

Based on the evaluation of environmental consequences in the Environmental Assessment, the Proposed Action would not cause negative environmental effects. Furthermore, air, water, and soil resources would not be negatively impacted by the Proposed Action.

Due to current and future land use of HAFB, the No-Action Alternative would have no impact on the environment.

Conclusion

The findings of this Environmental Assessment indicate that the Proposed Action to demolish Building 2148 and construct a new facility (Building 2149) will not have significant adverse effects on the human environment or any of the environmental resources as described in the Environmental Assessment. Therefore, issuance of a Finding of No Significant Impact is justified and an Environmental Impact Statement is not required.

Environmental Protection Committee Chairman

Date

APPENDIX B

Biological Information

TABLE B-1

Species Found at Hill Air Force Base

Double-crested Cormorant <i>Phalacrocorax auritus</i>	Black-billed Magpie <i>Pica pica</i>
Mallard <i>Anas platyrhynchos</i>	Common Raven <i>Corvus corax</i>
Redhead <i>Aythya americana</i>	Black-capped Chickadee <i>Parus atricapillus</i>
Common Goldeneye <i>Bucephala clangula</i>	Mountain Chickadee <i>Parus gambeli</i>
Turkey Vulture <i>Cathartes aura</i>	Rock Wren <i>Salpinctes obsoletus</i>
Bald Eagle <i>Haliaeetus leucocephalus</i>	Blue-gray Gnatcatcher <i>Polioptila caerulea</i>
Northern Harrier <i>Circus cyaneus</i>	American Robin <i>Turdus migratorius</i>
Sharp-shinned Hawk <i>Accipiter striatus</i>	Cedar Waxwing <i>BombyciZla cedrorum</i>
Cooper's Hawk <i>Accipiter cooperii</i>	European Starling <i>Sturnus vulgaris</i>
Swainson's Hawk <i>Buteo swainsoni</i>	Warbling Vireo <i>Vireogilvus</i>
Red-tailed Hawk <i>Buteo jamaicensis</i>	Yellow Warbler <i>Dendroica petechia</i>
American Kestrel <i>Falco sparverius</i>	Yellow-rumped Warbler <i>Dendroica coronata</i>
Prairie Falcon <i>Falco mexicanus</i>	Wilson's Warbler <i>Wilsonia pusilla</i>
Ring-necked Pheasant <i>Phasianus colchicus</i>	Black-headed Grosbeak <i>Pheucticus melanocephalus</i>
Killdeer <i>Charadrius vociferus</i>	Lazuli Bunting <i>Passerina amoena</i>
California Gull <i>Larus californicus</i>	Chipping Sparrow <i>Spizella passerina</i>
Rock Dove <i>Columba livia</i>	Brewer's Sparrow <i>Spizella breweri</i>
Mourning Dove <i>Zenaidura macroura</i>	Lark Sparrow <i>Chondestes grammacus</i>
Black-chinned Hummingbird <i>Archilochus alexandri</i>	Lark Bunting <i>Calamospiza melanocorys</i>
Broad-tailed Hummingbird <i>Selasphorus platycercus</i>	Grasshopper Sparrow <i>Ammodramus savannarum</i>
Rufous Hummingbird <i>Selasphorus rufus</i>	Song Sparrow <i>Melospiza melodia</i>
Belted Kingfisher <i>Ceryle alcyon</i>	White-crowned Sparrow <i>Zonotrichia leucophrys</i>
Lewis' Woodpecker <i>Melanerpes lewis</i>	Dark-eyed Junco <i>Junco hyemalis</i>
Downy Woodpecker <i>Picoides pubescens</i>	Red-winged Blackbird <i>Agelaius phoeniceus</i>
Northern Flicker <i>Colaptes auratus</i>	Western Meadowlark <i>Sturnella neglecta</i>
Willow Flycatcher <i>Empidonax traillii</i>	Brewer's Blackbird <i>Euphagus cyanocephalus</i>
Western Kingbird <i>Tyrannus verticalis</i>	Brown-headed Cowbird <i>Molothrus ater</i>
Horned Lark <i>Eremophila alpestris</i>	Bullock's Oriole <i>Icterus bullockii</i>
N. Rough-winged Swallow <i>Stelgidopteryx serripennis</i>	House Finch <i>Carpodacus mexicanus</i>
Bank Swallow <i>Riparia riparia</i>	Pine Siskin <i>Carduelis pinus</i>
Cliff Swallow <i>Hirundo pyrrhonota</i>	American Goldfinch <i>Carduelis tristis</i>
Barn Swallow <i>Hirundo rustica</i>	House Sparrow <i>Passer domesticus</i>
Western Scrub-Jay <i>Aphelocoma californica</i>	

APPENDIX C

Cultural Resources Information (MOA)

**MEMORANDUM OF AGREEMENT
BETWEEN THE UNITED STATES AIR FORCE AND
THE UTAH STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR § 800 REGARDING
DEMOLITION OF HISTORIC MUNITIONS BUNKERS, MAMS AREA,
HILL AIR FORCE BASE, UTAH**

WHEREAS the United States Air Force and Hill Air Force Base (Air Force) has determined that the proposed demolition of historic structures (Appendix A) have an adverse effect on properties that are eligible for inclusion in the National Register of Historic Places, and has consulted with the Utah State Historic Preservation Officer (SHPO) in accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470, and its implementing regulations (36 CFR Part 800); and

NOW, THEREFORE, the Department of the Air Force and the Utah SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertakings on historic properties:

1. PHOTOGRAPHS/DRAWINGS: Photographs are required of the buildings cited in Appendix A. An adequate number of professional quality black and white negative photographs, detailed photographs of all areas to be impacted by the undertaking and exterior and interior architectural trim/decorations shall be submitted. Photographs shall be numbered and labeled with address and date photograph were taken and keyed to a floor plan and site map. All prints and negatives shall be submitted in archival stable protective storage pages. As-built drawings will also be submitted to the Division of State History, Historic Preservation Office, to be placed on file.

Additionally, an adequate number of high quality digital photographs detailing all areas to be impacted by the undertaking and exterior architectural features shall be posted to the Hill Air Force Base Cultural Resources Public Outreach Web Site (Web Site). Photographs shall be inserted into a slide show situated on a map of Hill Air Force Base to show context. Photos proposed for inclusion in the Web Site will first be screened by Base Security personnel and any particular photo or map will not be publicly released if doing so would create an unreasonable security risk or violates any valid Federal security law or regulation. Any photo posted to the Web Site is subject to future removal if valid Federal security laws or regulations change in the future and such law or regulation prohibits such posting. It is anticipated that no restrictions will be imposed.

2. INTENSIVE LEVEL SURVEY (ILS) FORM: An ILS form must be completed to basic survey standards for each building. Limited historic research will be accomplished following the basic standards and forms will be submitted to the Division of State History, Historic Preservation Office, to be placed on file.

3. ENGINEERING DRAWINGS: Detailed HAER drawings and architect's elevations will be scanned into a high quality digital format and posted to the Web Site in a manner which logically associates the drawings with the photographs and descriptions of each particular building style.

The references to actual location on the Base will be protected from disclosure pursuant to valid Federal security laws and regulations. Classified or national security sensitive information, if any, regarding building design or function shall not be posted in violation of Federal law.

4. INTENSIVE LEVEL SURVEY (ILS) FORMS: Portions of the Utah State Historic Site Form shall be posted with the corresponding photographs and engineering drawings on the Web Site. While the entire site form will not be posted, the most relevant portions of the site form, Part 4 and Part 5, Architectural Description and History, respectively, will be posted together with photographs and engineering drawings subject to the security restrictions cited in paragraphs 1 and 2 above.

5. DISPUTE RESOLUTION: Should the SHPO or the Air Force object within thirty (30) days to any actions proposed pursuant to this MOA, the Air Force shall consult with the SHPO to resolve the objection. If the Air Force determines that the objection cannot be resolved, the Air Force shall request the comments of the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR § 800.7. Any Council comment provided in response to such a request will be taken into account by the Air Force in accordance with 36 CFR § 800.7(c)(4) with reference only to the subject of the dispute; the Air Force's responsibility to carry out all actions under this MOA that are not the subject of this dispute will remain unchanged.

6. EFFECTIVE DATE and DURATION: This MOA shall become effective upon execution by both parties. If, after three (3) years, any of the stipulations of this MOA have not been fulfilled, the Base will notify SHPO and determine whether the MOA needs to be revised.

Execution of this Memorandum of Agreement by the Department of the Air Force and the Utah SHPO, its subsequent acceptance by the Advisory Council on Historic Preservation, and implementation of its terms, evidence that the Department of the Air Force has afforded the Council an opportunity to comment on the undertaking and their efforts on historic preservation.

DEPARTMENT OF THE AIR FORCE

By: *W. James* Date: *5 Sept 03*
Director of Environmental Management
Hill AFB, Utah

UTAH STATE HISTORIC PRESERVATION OFFICER

BUM
By: *W. J. ...* Date: *15 Sept 07*
State Historic Preservation Officer

ACCEPTED for the Advisory Council on Historic Preservation

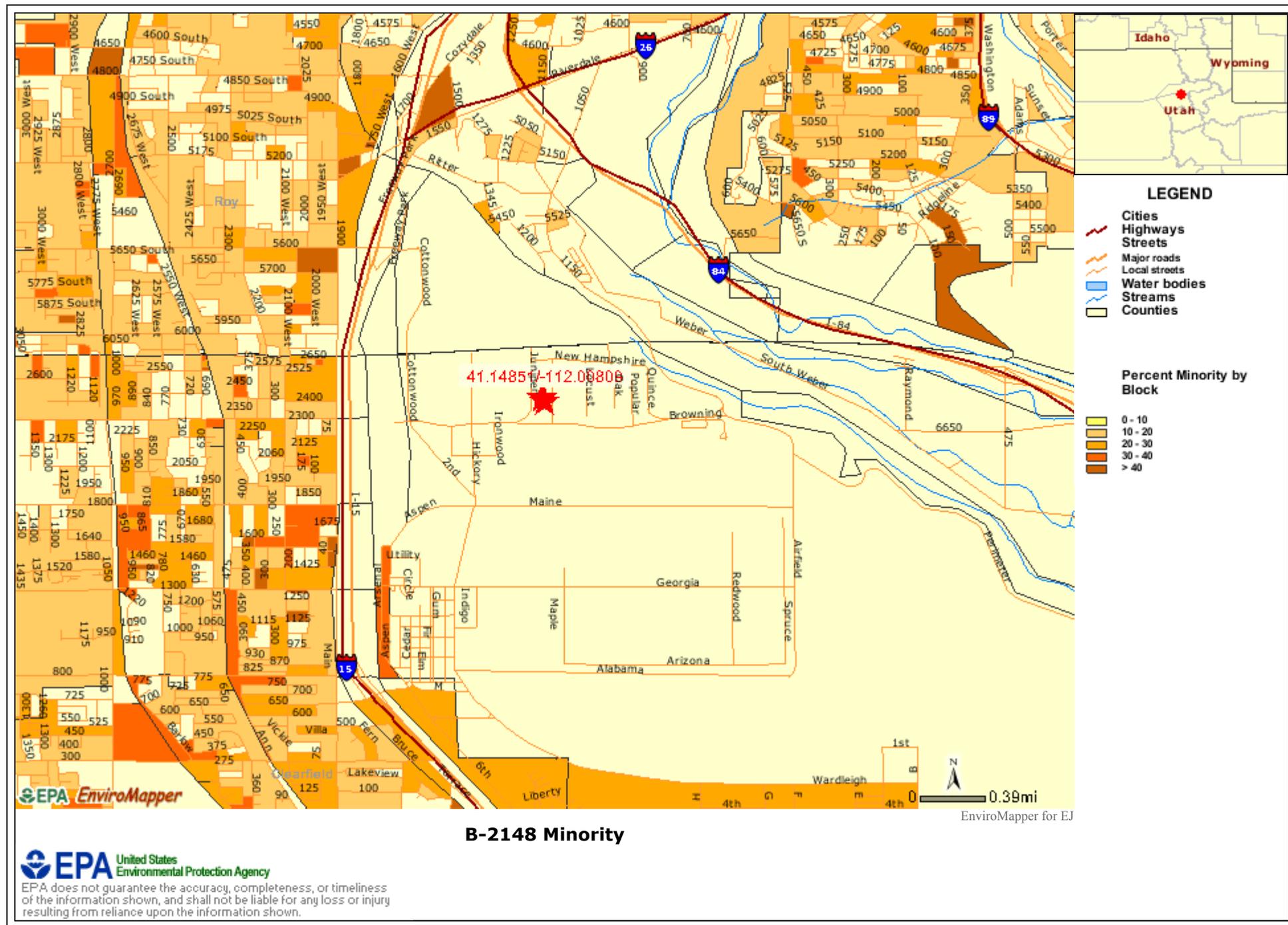
By: _____

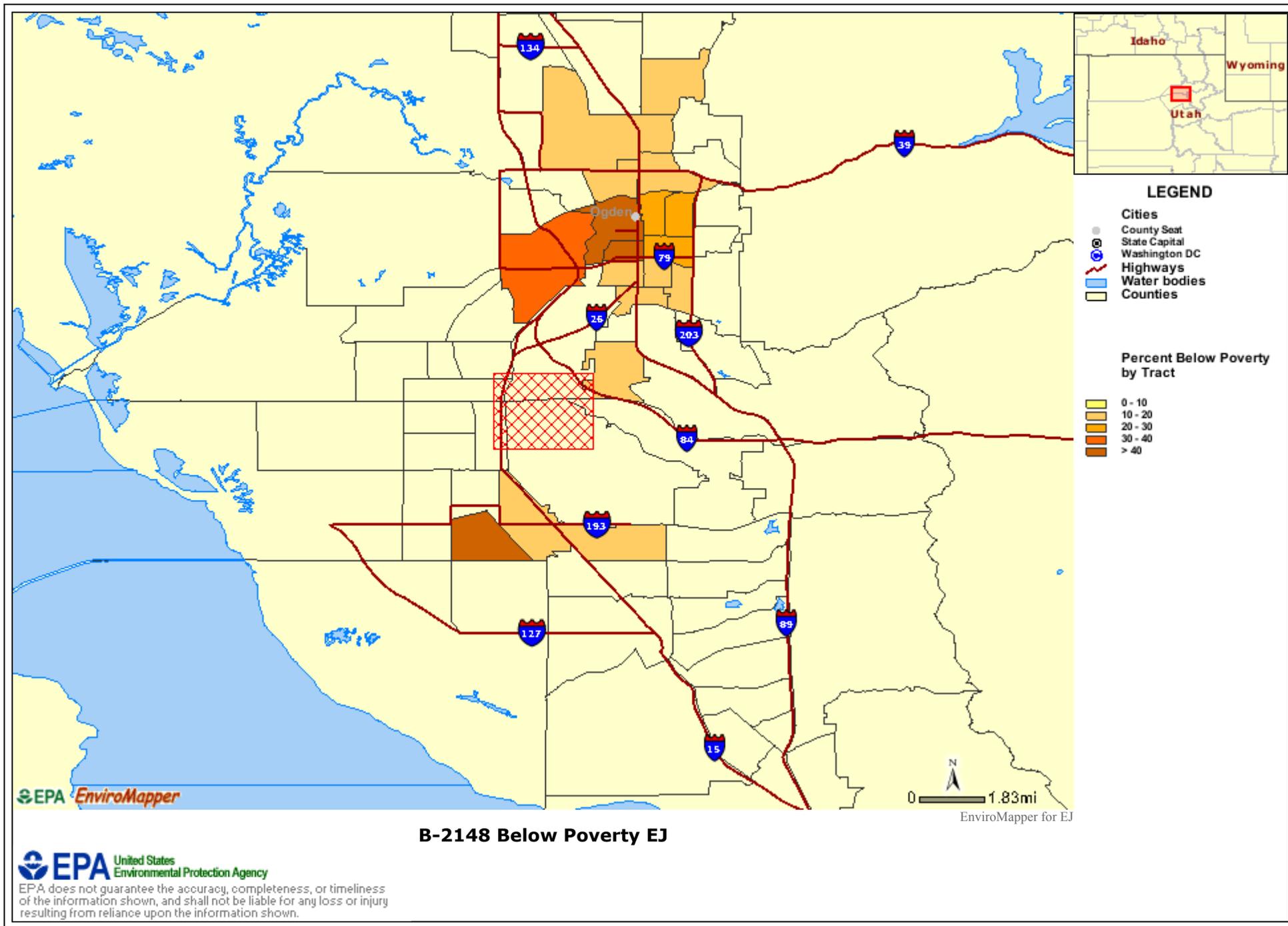
APPENDIX A – BUILDINGS PROPOSED FOR DEMOLITION

Bldg. Number	Type	Year Built	World War II Eligible	Cold War Eligible
1463	Full trapezoidal with protruding entry	1939	Yes	No
1464	Full trapezoidal with protruding entry	1939	Yes	No
1465	Full trapezoidal with protruding entry	1939	Yes	No
1466	Full trapezoidal with protruding entry	1939	Yes	No
1467	Full trapezoidal with protruding entry	1939	Yes	No
1476	Arsenal style, 1 floor, gable roof, overhead loading doors/fenestration	1921	Yes	No
2148	Arsenal style, 1 floor, hip roof	1941	Yes	No

APPENDIX D

Environmental Justice Information







Environmental Justice Geographic Assessment Tool

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Statistics represent residential population within a **9.9** mile buffer around feature of interest

Enter a new buffer value (max. 10 miles) [Go](#)

Social
Economic
Health
Environmental
Map
Regional

County and State Comparison

Overview

Total Persons:	321965	Land Area:	81.3%	Households in Area:	102583
Population Density:	1008.45 /sq mi	Water Area:	18.7%	Housing Units in Area:	108203
Percent Minority:	16%	Persons Below Poverty Level:	26407 (8.2%)	Households on Public Assistance:	3907
<i>This space intentionally left blank</i>		Housing Units Built <1970:	39%	Housing Units Built <1950:	15%

Race and Age*

Race Breakdown	Persons (%)	Age Breakdown	Persons(%)
White:	283890 (88.2%)	Child 5 years or less:	37377 (11.6%)
African-American:	4632 (1.4%)	Minors 17 years and younger:	107108 (33.3%)
Hispanic-Origin:	34185 (10.6%)	Adults 18 years and older:	214857 (66.7%)
Asian/Pacific Islander:	5762 (1.8%)	Seniors 65 years and older:	27097 (8.4%)
American Indian:	2509 (0.8%)	<i>This space intentionally left blank</i>	
Other Race:	17130 (5.3%)		
Multiracial:	8043 (2.5%)		

(* Columns that add up to 100% are highlighted)

Education

Education Level (Persons 25 & older)	Persons (%)
Less than 9th grade:	9704 (5.6%)
9th -12th grade:	19506 (11.2%)
High School Diploma:	51218 (29.3%)
Some College/2 yr:	55604 (31.8%)
B.S./B.A. or more:	38755 (22.2%)

SOURCE: [U.S. Bureau of the Census](#) 
Data represents population and housing statistics by block group for Census 2000.

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County and State Comparison

Overview

	Study Area	DAVIS County, UT	MORGAN County, UT	WEBER County, UT	UTAH
Total Persons:	321965	238994	7129	196533	2233169
Population Density:	1008.45 /sq mi	784.93 /sq mi	11.7 /sq mi	341.48 /sq mi	27.19 /sq mi
Percent Minority:	16%	10.3%	3%	17.3%	14.7%
Persons Below Poverty Level:	26407 (8.2%)	11984 (5%)	369 (5.2%)	18022 (9.2%)	206328 (9.2%)
Households in Area:	102583	71201	2046	65698	701281
Households on Public Assistance:	3907	2059	50	2477	
Housing Units Built <1970:	39%	29%	40%	47%	36%
Housing Units Built <1950:	15%	7%	22%	20%	16%

Race

Race Breakdown	Study Area	DAVIS County, UT	MORGAN County, UT	WEBER County, UT	UTAH
White:	283890 (88.2%)	220057 (92.1%)	6988 (98.0%)	172385 (87.7%)	1991560 (89.2%)
African-American:	4632 (1.4%)	2555 (1.1%)	2 (0.0%)	2388 (1.2%)	16150 (0.7%)
Hispanic Origin:	34185 (10.6%)	12780 (5.3%)	113 (1.6%)	24970 (12.7%)	200005 (9.0%)
Asian/Pacific					

Islander:	5762 (1.8%)	3497 (1.5%)	8 (0.1%)	2352 (1.2%)	36878 (1.7%)
American Indian:	2509 (0.8%)	1279 (0.5%)	2 (0.0%)	1565 (0.8%)	28646 (1.3%)
Other Race:	17130 (5.3%)	5452 (2.3%)	31 (0.4%)	13075 (6.7%)	94089 (4.2%)
Multiracial:	8043 (2.5%)	5226 (2.2%)	98 (1.4%)	4474 (2.3%)	51480 (2.3%)
(* Columns that add up to 100% are highlighted)					

Age

Age Breakdown	Study Area	DAVIS County, UT	MORGAN County, UT	WEBER County, UT	UTAH
Child 5 years or less:	37377 (11.6%)	27883 (11.7%)	715 (10.0%)	20826 (10.6%)	248608 (11.1%)
Minors 17 years and younger:	107108 (33.3%)	84017 (35.2%)	2631 (36.9%)	60771 (30.9%)	716831 (32.1%)
Adults 18 years and older:	214857 (66.7%)	154977 (64.8%)	4498 (63.1%)	135762 (69.1%)	1516338 (67.9%)
Seniors 65 years and older:	27097 (8.4%)	17566 (7.3%)	624 (8.8%)	20437 (10.4%)	190531 (8.5%)
(* Columns that add up to 100% are highlighted)					

Education

Education Level (Persons 25 & older)	Study Area	DAVIS County, UT	MORGAN County, UT	WEBER County, UT	UTAH
Less than 9th grade:	9704 (5.6%)	2566 (2.1%)	81 (2.3%)	8022 (7.0%)	59014 (5.0%)
9th -12th grade:	19506 (11.2%)	8672 (7.2%)	222 (6.2%)	14336 (12.6%)	127879 (10.7%)
High School Diploma:	51218 (29.3%)	30980 (25.9%)	1125 (31.6%)	33655 (29.5%)	317169 (26.6%)
Some College/2 yr.:	55604 (31.8%)	40690 (34.0%)	1241 (34.9%)	35328 (30.9%)	364575 (30.6%)
B.S./B.A. or more:	38755 (22.2%)	36757 (30.7%)	890 (25.0%)	22835 (20.0%)	321909 (27.0%)

SOURCE: [U.S. Bureau of the Census](#) 
 Data represents population and housing statistics by county for Census 2000.

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