ENVIRONMENTAL ASSESSMENT
BUILDING 1515 ADDITION

October 2003

Prepared for:

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Contract No.: F42650-98-D-0065
Task Order No.: 0026

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Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
OCT 2003		**00-00-2003 to 00-00-2003**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Environmental Assessment: Building 1515 Addition	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **URS,756 East Winchester Street, Suite 400,Salt Lake City,UT,84107**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**31**	

Finding of No Significant Impact for the Building 1515 Addition

Description of the Proposed Action
The U.S. Air Force intends to expand Building 1515 at Hill Air Force Base (AFB). This building is where software sustainment activities take place. To meet the required workload and absorb new workloads, more room in the building is needed. The purpose of this Environmental Assessment (EA) is to analyze potential environmental impacts associated with the Building 1515 Addition.

In the Proposed Action, two equal additions to Building 1515, each identical to the existing three units, would take place in two different fiscal years. The parking area and security controls around Building 1515 would also be expanded in two phases. By expanding Building 1515, the Software Development Division would be able to meet its current workload requirements and absorb new workload.

Summary of Environmental Impacts
This section describes the effects that the Proposed Action would have on the existing environmental conditions at Hill AFB. The effects or impacts of the Proposed Action can be beneficial or adverse and short-term or long-term, as discussed below.

Surface Water
Temporary increases in runoff sediment would occur during construction activities, but implementing standard construction practices would minimize impacts. No long-term impacts to surface water bodies or surface water drainage patterns are expected as a result of implementing the Proposed Action.

Groundwater
Groundwater conditions are not expected to be affected by the Proposed Action.

Geology and Soils
The Proposed Action would disturb surface soil in the course of construction. However, this disturbance would be short-term and minimized by implementing standard construction practices.

Vegetation
Disturbed vegetation would be replaced under the Proposed Action. There are no sensitive or endangered plant species in the vicinity of the Proposed Action. Therefore, there are no anticipated significant impacts to vegetation.

Wetlands
Wetlands are not expected to be affected by the Proposed Action.

Wildlife
Wildlife is not expected to be affected by the Proposed Action.

Air Quality
There would be no anticipated significant impact to air quality from the emissions caused by construction activities of the Proposed Action. Appropriate dust control measures would be implemented during construction activities. No other impacts to air quality are anticipated.

Cultural Resources
No adverse impacts to cultural resources are anticipated under the Proposed Action.

Land Use
There would be no impact to current land use in the vicinity of the Proposed Action.

Noise
No significant adverse noise impacts are anticipated from the Proposed Action.

Health and Safety
No significant adverse health and safety impacts are anticipated from the Proposed Action.

Transportation
Short-term traffic delays may occur under the Proposed Action during construction activities. These would be due to the movement of heavy equipment and would be short in duration. No significant adverse impacts are anticipated under the Proposed Action.

Socioeconomic Conditions
Local equipment suppliers and a local worker base would be utilized under the Proposed Action. This would generate local revenue. The Software Development Division would be able to meet its required workload level, absorb new workload, and hire 135 additional employees. No adverse impacts to socioeconomic conditions are anticipated under the Proposed Action.

Environmental Justice
Environmental justice analyses for NEPA documents attempt to determine whether a proposed action disproportionately impacts minority and poor populations. Because the Building 1515 Addition would not result in any significant impacts to the surrounding community, there would be no disproportionate impacts to minority or low-income populations.

Cumulative Impacts
There would be no anticipated adverse cumulative impacts expected from the Proposed Action. The Software Engineering Division will be able to comply with required workloads and absorb new workload. Dust control measures would be implemented during construction activities. Coordination with Hill AFB Environmental Management Directorate to assure proper stormwater drainage management would occur. Disturbed vegetated/landscaped areas would be replanted/relandscaped.

Conclusion
Based on the results of this EA, no significant adverse environmental impacts are expected due to the actions of the Building 1515 Addition at Hill AFB, provided all policies, procedures and regulations are strictly followed. Therefore, in accordance with Air Force Instruction 32-7061, a Finding of No Significant Impact (FONSI) may be issued, and preparation of an Environmental Impact Statement (EIS) is not necessary.

Hill Air Force Base, Utah

Authorized Signature

10 Oct 03
Date

11854

Staff Summary Sheet

	To	Action	Signature (Surname), Grade, Date		To	Action	Signature (Surname), Grade, Date
1	OO-ALC/CCX	Coord	10/8	6			
2	OO-ALC/CD	Sign	(10)	7			
3				8			
4.				9			
5				10			10/09

Grade and Surname of Action Officer	Symbol	Phone	Suspense Date
Winn, GS-12	EMOR	7-0383	

Subject	SSS Date
Environmental Assessment for the Building 1515 Addition	29 Sep 03

1. An Environmental Assessment (EA) Tab 3, has been prepared to analyze the potential environmental impacts of the Proposed Action for construction additions of Building 1515 and addition and expansion of the parking area. In order to meet workload requirements and absorb new workloads, the Software Engineering Division at Hill Air Force Base proposes to expand Building 1515. An Executive Summary is located at Tab 2.

2. The EA was prepared in accordance with the National Environmental Policy Act of 1969 and 32 CFR Part 989.

3. RECOMMENDATION OO-ALC/CD, Environmental Protection Committee Chairman, sign the FONSI, Tab 1.

W. ROBERT JAMES
Director of Environmental Management

3 Tabs
1. Finding of No Significant Impact
2. Executive Summary
3. Environmental Assessment

Finding of No Significant Impact for the Building 1515 Addition

Description of the Proposed Action

The U.S. Air Force intends to expand Building 1515 at Hill Air Force Base (AFB). This building is where software sustainment activities take place. To meet the required workload and absorb new workloads, more room in the building is needed. The purpose of this Environmental Assessment (EA) is to analyze potential environmental impacts associated with the Building 1515 Addition.

In the Proposed Action, two equal additions to Building 1515, each identical to the existing three units, would take place in two different fiscal years. The parking area and security controls around Building 1515 would also be expanded in two phases. By expanding Building 1515, the Software Development Division would be able to meet its current workload requirements and absorb new workload.

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This section describes the effects that the Proposed Action would have on the existing environmental conditions at Hill AFB. The effects or impacts of the Proposed Action can be beneficial or adverse and short-term or long-term, as discussed below.

Surface Water

Temporary increases in runoff sediment would occur during construction activities, but implementing standard construction practices would minimize impacts. No long-term impacts to surface water bodies or surface water drainage patterns are expected as a result of implementing the Proposed Action.

Groundwater

Groundwater conditions are not expected to be affected by the Proposed Action.

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The Proposed Action would disturb surface soil in the course of construction. However, this disturbance would be short-term and minimized by implementing standard construction practices.

Vegetation

Disturbed vegetation would be replaced under the Proposed Action. There are no sensitive or endangered plant species in the vicinity of the Proposed Action. Therefore, there are no anticipated significant impacts to vegetation.

Wetlands

Wetlands are not expected to be affected by the Proposed Action.

Wildlife

Wildlife is not expected to be affected by the Proposed Action.

Air Quality

There would be no anticipated significant impact to air quality from the emissions caused by construction activities of the Proposed Action. Appropriate dust control measures would be implemented during construction activities. No other impacts to air quality are anticipated.

Cultural Resources

No adverse impacts to cultural resources are anticipated under the Proposed Action.

Land Use
There would be no impact to current land use in the vicinity of the Proposed Action.

Noise
No significant adverse noise impacts are anticipated from the Proposed Action.

Health and Safety
No significant adverse health and safety impacts are anticipated from the Proposed Action.

Transportation
Short-term traffic delays may occur under the Proposed Action during construction activities. These would be due to the movement of heavy equipment and would be short in duration. No significant adverse impacts are anticipated under the Proposed Action.

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Local equipment suppliers and a local worker base would be utilized under the Proposed Action. This would generate local revenue. The Software Development Division would be able to meet its required workload level, absorb new workload, and hire 135 additional employees. No adverse impacts to socioeconomic conditions are anticipated under the Proposed Action.

Environmental Justice
Environmental justice analyses for NEPA documents attempt to determine whether a proposed action disproportionately impacts minority and poor populations. Because the Building 1515 Addition would not result in any significant impacts to the surrounding community, there would be no disproportionate impacts to minority or low-income populations.

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There would be no anticipated adverse cumulative impacts expected from the Proposed Action. The Software Engineering Division will be able to comply with required workloads and absorb new workload. Dust control measures would be implemented during construction activities. Coordination with Hill AFB Environmental Management Directorate to assure proper stormwater drainage management would occur. Disturbed vegetated/landscaped areas would be replanted/relandscaped.

Conclusion
Based on the results of this EA, no significant adverse environmental impacts are expected due to the actions of the Building 1515 Addition at Hill AFB, provided all policies, procedures and regulations are strictly followed. Therefore, in accordance with Air Force Instruction 32-7061, a Finding of No Significant Impact (FONSI) may be issued, and preparation of an Environmental Impact Statement (EIS) is not necessary.

Hill Air Force Base, Utah

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Authorized Signature Date

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LIST OF ACRONYMS

AFB	Air Force Base
AFI	Air Force Instruction
AFMAN	Air Force Manual
bgs	Below ground surface
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COE	Corps of Engineers
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_x	Nitrogen oxides
NRHP	National Register of Historic Places
O_3	Ozone
OSHA	Occupational Safety and Health Act
Pb	Lead
PM_{10}	Particulate matter measuring 10 microns or smaller
SO_x	Sulfur oxides
UDAQ	Utah Division of Air Quality
USAF	United States Air Force
VOC	Volatile Organic Compounds

EXECUTIVE SUMMARY

In order to meet its workload requirements and absorb new workloads, the Software Engineering Division at Hill Air Force Base (AFB) proposes to expand Building 1515. The building, first constructed in 1988, is designed to easily accept modular additions. The proposed work would add two sections, each identical to the existing three sections, to the south side of the building. The existing parking area south of Building 1515 would be demolished and new parking areas would be established along the west and south sides of the additions.

This Environmental Assessment analyzes the potential environmental impacts of the Proposed Action-constructing the additions, and the No Action Alternative. In the Proposed Action, the construction would occur in two phases. In phase 1, one addition and a parking area expansion would take place. Phase 2, to be completed in the following fiscal year, would add a second, equal, building addition and further expand the parking area. Under the No Action Alternative, no construction would occur and the Software Engineering Division would not be able to meet its required workload, nor would it be able to absorb new workload.

A summary of the impacts from the Proposed Action and the No Action Alternative is provided in Table ES-1. It is not anticipated that the Proposed Action would have significant adverse environmental impacts. However, the No Action Alternative would not address the Software Engineering Division's workload concerns.

Table ES-1
Anticipated Environmental Consequences from the Building 1515 Addition

Environmental Issues	Proposed Action Alternative	No-Action Alternative
Surface Water	No significant adverse impact. Short-term additional sediment runoff during construction. Implementing standard construction practices for runoff control would minimize this.	No impact.
Groundwater	No impact.	No impact.
Geology and Soils	No significant adverse impact. Short-term surface soil disturbance related to construction activities.	No impact.
Vegetation	No significant adverse impact. Disturbance of local and planted vegetation. Areas would be revegetated in the vicinities of the Proposed Action.	No impact.
Wetlands	No impact.	No impact.
Wildlife	No impact.	No impact.
Air Quality	No significant adverse impact. Negligible exhaust emissions from construction activities. Dust control measures would be implemented to control fugitive dust. Coordination with UDAQ necessary prior to construction activities.	No impact.
Cultural Resources	No anticipated adverse impact if the Draft Integrated Cultural Resources Management Plan is followed.	No impact.
Land Use	No adverse impact.	No impact.
Noise	No significant adverse impact. A slight increase in noise during construction may occur, but this would be short-term and limited to daylight hours.	No impact.
Health and Safety	No significant adverse impact.	No impact.
Transportation	No significant adverse impact. Short-term traffic delays or detours may be necessary.	No impact.
Socioeconomics	Local laborers would benefit from the increased job opportunities related to construction. Also, the Software Engineering Division will employ 135 new employees.	Hill AFB Software Engineering Division would not be able to meet its workload requirement, including absorbing increased workload.
Environmental Justice	No impact.	No impact.

Section 1
PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 Introduction

Building 1515 at Hill Air Force (AFB) houses the Software Engineering Division and is where software systems sustainment work occurs. Software systems sustainment includes updating software for necessary military functions. All the work conducted within Building 1515 is classified, therefore it is a secure area. The Software Engineering Division's systems sustainment work is increasing, requiring a larger facility to support the increased workload. Hill AFB intends to expand Building 1515 to the south to meet the requirements of this increased workload. The expansion is planned to occur in two phases, each one occurring in a different fiscal year. Associated with the expansion, the south portion of the Building 1515 parking lot will be demolished. With each phase of the expansion, additions to the parking lot will also occur. The purpose of this Environmental Assessment (EA) is to evaluate the Proposed Action and identify potential environmental impacts of the Proposed Action and alternatives.

1.2 Background

Hill AFB is located in northern Utah about 25 miles north of Salt Lake City and approximately 5 miles south of Ogden (Figure 1-1). It was established by congressional order in 1935 and was constructed adjacent to the Ogden Army Arsenal beginning in 1940. In 1955, the Ogden Army Arsenal was transferred from the U.S. Army to the U.S. Air Force, doubling the size of Hill AFB to a total of almost 6,700 acres and 1,171 buildings. The mission of Hill AFB centers on the maintenance and management of aircraft and missiles. Base industrial facilities include aircraft, vehicle, and missile management and support.

Building 1515 is located in the western portion of Hill AFB, approximately 1.5 miles south of the Roy Gate. It is in an isolated area, with no other buildings in close proximity, surrounded by a perimeter fence and open, undeveloped land. Building 1515 was constructed in 1988 and was designed to be easily expanded, facilitating the additions addressed in this EA.

1.3 Need for the Proposed Action

The Software Engineering Division is in the midst of increasing its systems sustainment workload. This increase is due to the expansion of current workloads and the addition of new workloads. The workload increase will result in the addition of approximately 135 employees. The existing facility is not able to absorb the increased workload and workforce. For this reason, Building 1515 needs to be expanded.

1.4 National Environmental Policy Act Requirements for Air Force Actions

The National Environmental Policy Act (NEPA) of 1969 requires federal agencies to analyze the potential environmental impacts of a proposed action and to evaluate reasonable alternative actions. The results of the analyses are used to make decisions or recommendations on whether and how to proceed with those actions. Air Force Instruction (AFI) 32-7061, *Environmental Impact Analysis Process*, describes the process of preparing an EA for proposed actions on Air Force property. Based on the EA, either a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) is prepared. Both the AFI 32-7061 guidance and the implementing regulations of NEPA (40 *Code of Federal Regulations* (CFR) 1500) were followed in preparing this EA.

Location Map

Building 1515 Addition
Hill Air Force Base, Utah

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FIGURE 1-1

Section 2
DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

This section describes the alternatives that were considered by the U.S. Air Force for the addition to Building 1515.

2.1 Selection Criteria

The primary consideration related to this project is security. As all work at Building 1515 is classified, including the new workload, a high security level must be maintained during and after construction. The existing Building 1515 incorporates security measures such as perimeter fencing with turnstiles installed for access, cameras, and security guards. The construction methods employed and the completed facility must meet security requirements without being too costly to enforce. Also, since much of the new workload will be performed in conjunction with existing workloads at Building 1515, the transfer of technology and/or products between current and new workloads without breaking security must be possible.

An open and clear field lies to the north of Building 1515. This field must remain clear and devoid of new construction in order to fulfill components of the Software Engineering Division's mission.

2.2 Description of Alternatives

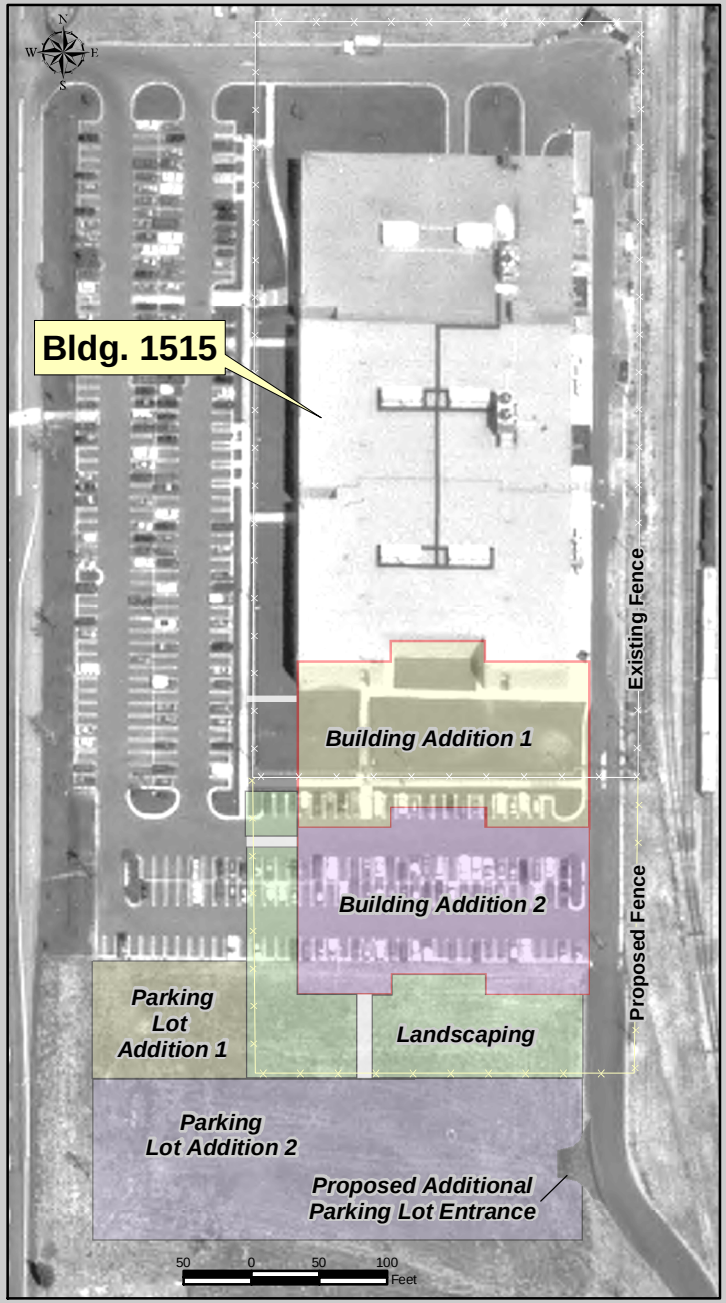
There are three alternatives to provide new facilities for the new workloads the Software Engineering Division will experience. These alternatives include the Proposed Action - expand Building 1515, Alternative 1 - renovate a different building, and Alternative 2 - construct a new building. The No Action Alternative is also addressed in this EA.

2.2.1 Proposed Action

Expanding the existing building to accommodate the increased workload would fulfill the selection criteria presented in Section 2.1. The design of Building 1515 includes several identical units joined together. The building is currently comprised of three units. The two additions would each add one unit to the building. Each addition would comprise a separate action and would occur in different fiscal years. As building additions are intrinsic to the original design of Building 1515, the necessary approvals from Hill AFB are secured. The Proposed Action would expand Building 1515 southward in two phases (Figure 2-1). The utilities and security measures that serve the existing building would be extended to service the additions. When the additions are joined to the existing structure, a secondary security barrier would be established within the existing structure. This would allow for construction activities at the point of attachment between the addition and the existing structure without breaching the current security barriers.

Construction equipment and materials would be staged in the parking area adjacent to Building 1515. Measures to assure adequate security during this phase would be implemented. Construction equipment, materials, and personnel would be searched to assure security and safety considerations are met.

The perimeter security fence currently in place would be expanded to encompass the additions. The existing parking lot would be expanded to replace stalls lost to construction and to add additional stalls to support the larger workforce. The current parking lot would lose approximately 106 stalls to the additions. As the parking lot is expanded to recoup the lost stalls, approximately 100 stalls would be added, resulting



Existing Building 1515

Building 1515 with Proposed Additions

Site Map with Proposed Additions

Building 1515 Addition
Hill Air Force Base, Utah

URS

FIGURE 2-1

in the construction of approximately 206 stalls. The area into which the parking lot would be extended currently consists of mowed mostly level ground without any aboveground developments.

2.2.2 Alternative 1—Renovate a Different Building

Renovating a different building and retrofitting it to include all required security measures was considered. This alternative would provide facilities for the increased workload. The cost of renovation, however, was deemed prohibitive. To allow components to be shared between Building 1515 and a renovated building elsewhere on Base, security must be broken and subsequently reestablished. Furthermore, there are no existing buildings at Hill AFB that would adequately serve the Software Engineering Division. For these reasons, this alternative was eliminated from further consideration.

2.2.3 Alternative 2—Construct a New Building

While constructing a new building would provide a secure facility to carry out the increased workload, the issue of maintaining security when transferring technology and products is not resolved with this alternative. The benefits of conducting all software systems sustainment work in one building is that the secure site at which one component of the work is conducted would be the same as the site of another work component. This allows the two components to be shared back and forth without breaking and reestablishing the specific security measures required. This alternative would take too long and be too costly. Expanding an existing building with units identical to the existing units does not require the intense design effort or utility corridor construction that a new building does. Also, this alternative would require the Software Engineering Division to secure Base approval for the new building—a lengthy process. Having two separate buildings also increases operational costs, in that more support personnel, specifically security personnel, would have to be hired. For all of these reasons, this alternative was eliminated from further consideration.

2.2.4 No Action Alternative

The No Action Alternative does not meet the criteria presented in Section 2.1. The required space for the Software Engineering Division's increased workload and workforce would not materialize. The Software Engineering Division would be unable to meet current and future workload growth. In accordance with NEPA and AFI 32-7061, however, the No Action Alternative has been evaluated in this EA.

Section 3
DESCRIPTION OF THE EXISTING ENVIRONMENT

The following sections characterize the physical conditions, natural and historic resources, environmental quality, land use, health and safety, transportation, and socioeconomic conditions at Hill AFB in the vicinity of the Proposed Action.

3.1 Surface Water

Within the boundaries of Hill AFB, there are no streams, rivers or lakes. Ponds and wetlands are present, however. Three drainage systems located off Base and several drainage ponds located throughout the Base provide drainage for Hill AFB.

Surface water in the Proposed Action location flows along the ground or various drainage lines into drainage ponds. There are storm drain lines beneath the Building 1515 parking lot. Surface water drainage in the undeveloped area south of Building 1515 occurs through infiltration. The gully located at the southernmost end of the proposed construction contains no drainage piping and the gully itself does not serve as any particular type of engineered or natural drainage channel. The structures to the east of Building 1515, upgradient, appear to rely on infiltration for surface water drainage. It is unlikely these will present a source of run-on to the Building 1515 property.

3.2 Groundwater

Hill AFB is located in the Weber Delta Sub-District. Two of the three primary aquifers are the principal aquifers of the East Shore area. The Sunset and the Delta aquifers are deep, confined aquifers with depths below ground surface (bgs) of 250 to 400 feet and 500 to 700 feet, respectively. These aquifers are recharged through subsurface flow infiltrating fractures and joints in the Wasatch Range and from the underflow of a deep unconfined aquifer near the mountain front. The third aquifer overlays the Sunset and the Delta aquifers and is an unnamed, deep, unconfined aquifer (Montgomery Watson, 1998). There is no contaminated groundwater or Operable Units identified in the vicinity of the Proposed Action.

3.3 Geology and Soils

Hill AFB is located on a delta created by the flow of the Weber River into ancient Lake Bonneville. Surface soils consist primarily of sand, gravel, silts, and clays. They are mostly well drained and are generally 10-30 feet thick (Montgomery Watson, 1998). Soil in the Proposed Action area falls within the description of the general soils on Base.

3.4 Vegetation

The Proposed Action location consists of paved or graveled developed areas, native vegetation, and landscaped ground. The landscaped areas are mowed frequently. Currently, there are no known endangered or threatened vegetative species located within Hill AFB (USAF, 1989).

3.5 Wetlands

There are numerous man-made and natural wetlands situated at Hill AFB. None, however, are located in close proximity to Building 1515.

3.6 Wildlife

Wildlife at Hill AFB includes large and small mammals, birds, amphibians and reptiles common to the mountain-brush habitat and the western United States. Mule Deer, foxes, coyotes, lizards, Pheasants, Meadowlarks, Magpies, Mallard Ducks, and Great Blue Herons have been identified at Hill AFB. Two threatened or endangered species have been noted in the immediate vicinity of Hill AFB – Bald Eagles and Peregrine Falcons (Montgomery Watson, 1998). Either of these species may occasionally enter the Base boundaries, but neither resides on Base. There are no known endangered or threatened wildlife species or habitat located in the vicinity of the Proposed Action (Hill AFB Natural Resources).

3.7 Air Quality

Hill AFB is located in Davis County and Weber County, Utah. Ogden City, which is located in Weber County, is designated as a non-attainment area for particulate matter (PM_{10}) and a maintenance area for carbon monoxide (CO), two of the National Ambient Air Quality Standards (NAAQS) designated by the Environmental Protection Agency (EPA). Weber County, excluding Ogden City, is designated as an attainment area for all pollutants. The NAAQS also include the criteria pollutants of nitrogen oxides (NOx), sulfur oxides (SOx), ozone (O_3), and lead (Pb). Davis County is designated by the EPA as a maintenance area for O_3 and as an attainment area for all other NAAQS.

3.8 Cultural Resources

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.

Cultural resources can be divided into three basic categories: archaeological, architectural, and traditional. Archaeological resources are where prehistoric and historic activities measurably altered the earth (for example, pithouses, hearths) or where physical remains were deposited (for example, 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 National Register of Historic Places (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 (for example, 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.

Hill Air Force Base, Utah

The National Historic Preservation Act, Section 106, (36 CFR 800) and AFI 32-7065 requires the Air Force to protect historic properties. Currently, there are no NRHP listed properties on Hill AFB. Over three hundred eligible and potentially eligible historic architectural resources have been identified within Hill AFB (Hill AFB Cultural Resources Preservation Office). The majority of these 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. Building 1515, constructed in 1988, is located within the Ogden Arsenal Historic District, but has been determined as non-contributing and lacks exceptional Cold War significance.

There have been no significant discoveries of archaeological resources on Hill AFB. A few prehistoric artifacts have been recovered, but were isolated enough to negate the need for further excavation or site designation.

No traditional resources have been identified at Hill AFB.

3.9 Land Use

Land use in the area around Building 1515 consists of a transportation corridor, Wardleigh Road, and open areas. The open area north of the building is necessary to meet the specifications of ongoing work within Building 1515. The future outlook for the area around Building 1515 includes the same type of land uses.

3.10 Noise

Hill AFB supports aircraft and logistical operations. In routine daily operations, there is noise from aircraft traffic, large transportation vehicular traffic, maintenance activities, logistical activities, and supporting operations. The noise levels at the Proposed Action location are consistent with the operations at Hill AFB.

3.11 Health and Safety

Safety at Hill AFB is the responsibility of the directorate of the Ogden Air Logistics Safety Office, which has four divisions: Weapons Safety, Flight Safety, Ground Safety, and Systems Safety. The health assurance of personnel at Hill AFB is the responsibility of Bioenvironmental Engineering Services. Bioenvironmental Engineering Services assures facilities meet the appropriate health and safety guidelines, including those pertaining to asbestos.

3.12 Transportation

Hill AFB is easily accessible by various highway roads. The Utah north-south Interstate Highway, I-15, bounds Hill AFB to the west. An east-west highway, Route 193, bounds Hill AFB to the south. Highway 60 and Interstate-84 parallel the eastern edge of the Base. Highway 26 crosses I-15 to the north of Hill AFB. Entry into Hill AFB can occur through one of four gates: the South Gate, Southwest Gate, West Gate, and the Roy Gate. Once on Hill AFB, internal roadways and travel routes are well established. The Proposed Action site is easily accessible by way of highly developed internal roadways and travel routes.

3.13 Socioeconomics

Hill AFB is located in Davis and Weber Counties and employs approximately 10,000 civilians in support of approximately 5,000 military personnel. In 2000, the combined population of Davis and Weber Counties was 435,527 (U.S. Census Bureau, 2000). These counties encountered a growth rate of approximately 4 percent between 1998 and 2000. Hill AFB is a major employer in this two-county area.

Section 4
ENVIRONMENTAL CONSEQUENCES

This section describes the effects the Proposed Action and the No Action Alternative would have on the existing conditions at Hill AFB. The effects or impacts of the alternatives could be beneficial or adverse and short-term or long-term, as discussed below.

4.1 Surface Water

The proposed construction would not cause a long-term impact on surface water quality. Activities associated with the Proposed Action would create debris and disturb existing ground cover, increasing the potential for soil erosion, runoff, and sedimentation in the stormwater runoff. However, these impacts would be temporary, occurring during and immediately after construction/excavation activities. Since the construction site is located on Hill AFB and the disturbed area would be less than 5 acres, a State of Utah UPDES Stormwater General Permit for Construction Activity is not required. However, stormwater control measures must comply with local ordinances. Coordination with the Directorate of Environmental Management at Hill AFB is necessary to ascertain compliance.

The following standard construction practices to be implemented would minimize potential short-term impacts:

- Minimizing the size of the disturbed area associated with the construction site;
- Covering debris and removing it as quickly as possible; and
- Returning disturbed areas to pre-disturbance quality as necessary.

Additional measures to control sediment runoff may include structural controls, such as silt fences, and non-structural controls, such as maintenance of a vegetative filter strip.

Under the No Action Alternative, there would be no increase in the potential for soil erosion or sedimentation in local stormwater drainage systems.

4.2 Groundwater

Neither the Proposed Action nor the No Action Alternative is expected to adversely impact groundwater conditions. The disturbance depth due to construction is not expected to reach groundwater.

4.3 Geology and Soils

The construction activities of the Proposed Action are not expected to adversely impact the surrounding geology, though surface soils would be disturbed in the process. To reduce the potential effects of wind and water erosion on exposed soils during demolition, standard construction practices, discussed in section 4.1, would be implemented. With the implementation of these efforts, no significant adverse impacts to geology or soils are expected from the construction activities of the Proposed Action.

Under the No Action Alternative, there would be no increase in the potential of contamination to geology and soils.

4.4 Vegetation

The vegetation located in and around the Proposed Action area would be affected by the construction activities. However, there are no threatened or endangered plant species identified at this location. The vegetation in the Proposed Action location is comprised of native and introduced vegetation. The area that would be affected by construction activities would be limited as much as possible to that which is within the immediate work area. After construction is complete, disturbed areas would be revegetated as necessary to prevent erosion. No significant impacts to the local vegetation are expected from the Proposed Action.

No adverse impacts to vegetation are expected under the No Action Alternative.

4.5 Wetlands

As there are no wetlands located in close proximity to the proposed construction area, no adverse impacts are anticipated to wetlands from the Proposed Action or the No Action Alternative.

4.6 Wildlife

There are no threatened or endangered species identified on Hill AFB. In the Proposed Action area, there is no significant habitat identified for protected wildlife. Therefore, there are no anticipated adverse impacts to wildlife.

Under the No Action Alternative, wildlife habitats, food sources, and species would not be impacted.

4.7 Air Quality

There would be no long-term impacts to air quality associated with the Proposed Action. Construction activities would result in some short-term emissions of regulated pollutants that would only occur during the construction period. These emissions would include particulate matter from fugitive dust and criteria pollutants from fuel-fired equipment. However, these emissions and related impacts would be temporary and less than significant in mass, concentration, and duration. Construction-related dust would be short-term. The Utah Administrative Rules, R307-309-4 and R307-309-6, apply to construction activities on land areas over ¼ acre in size. The fugitive dust rules require implementing measures to prevent fugitive particulate matter from becoming airborne. Such measures may include:

- Providing synthetic cover;
- Watering and/or providing chemical stabilization; and/or
- Providing wind breaks.

These measures or others would be implemented during the construction process as appropriate.

As a federal facility in a designated "maintenance" area for ozone, any actions at Hill AFB must undergo review in accordance with the Federal Conformity Rule (40 CFR 93.153). Appendix B contains the air emission calculations for the exhaust emissions associated with the Proposed Action. Construction activities producing PM_{10} do not require analysis under the Conformity Rule for an ozone maintenance area. As shown in Appendix A, construction equipment would not be expected to emit greater than 0.65 ton of VOCs or greater than 8.92 tons of NO_x for each phase of construction. Therefore, emissions from

the Proposed Action would not exceed the *de minimis* levels in the Conformity Rule (i.e., 100 tons per year for VOCs and 100 tons per year for NO_x). As a result, the Air Force is not required to prepare a full conformity determination for the Proposed Action. However, to assure compliance with the State of Utah Air Quality Rules, coordination with the Utah Division of Air Quality (UDAQ) should ensue prior to construction activities.

The No Action Alternative would have no impact on air quality.

4.8 Cultural Resources

Building 1515 was constructed in 1988 and is not considered an historic structure. Although it is located within the proposed Ogden Arsenal Historic District, it has been determined as non-contributing, and lacks exceptional Cold War significance. Therefore, any additions or modifications would have no effect to historic properties.

If any cultural resources are observed in the area during any phase of construction, action in the immediate vicinity would stop. 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. 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 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.

4.9 Land Use

The general land use in the Proposed Action area is expected to remain the same after construction. The general characteristics of the land, developed and/or semi-developed, are expected to stay the same. No adverse impacts to land use are expected for the Proposed Action.

Under the No Action Alternative, the land use would remain the same.

4.10 Noise

Construction activities of the Proposed Action would create short-term noise impacts during daylight hours. Under current conditions, normal operations at Hill AFB include traffic and aircraft noise occurring throughout the day. The added noise impact of construction activities is not expected to be a significant increase over current noise levels. Residential areas are not located near the Proposed Action location; therefore, no noise impacts to residential areas are expected. There would be no long-term noise impacts.

Under the No Action Alternative, noise levels would not change from the current levels. Therefore, no adverse impacts associated with noise are anticipated from the No Action Alternative.

4.11 Health and Safety

The typical health and safety hazards associated with construction sites using heavy-duty construction equipment would be present for the Proposed Action. All Occupational Safety and Health Administration (OSHA) guidelines would be followed during construction to minimize potential risk to workers. The general public would be kept a safe distance from construction areas to minimize potential risk to non-workers. There would be no long-term health and safety concerns associated with the Proposed Action.

Under the No Action Alternative, no construction activities would take place, therefore, no potential impacts to health and safety would arise.

4.12 Transportation

For the Proposed Action, short-term traffic delays may be necessary during construction. Such delays would be insignificant and short in duration, as they would be to allow for the entry/exit of heavy equipment vehicles.

No adverse impacts are expected for the No Action Alternative.

4.13 Socioeconomic Conditions

Construction activities for the Proposed Action would be beneficial to the local socioeconomic conditions. Labor and materials would be purchased from the local community, increasing local revenue. The Software Engineering Division would employ an additional 135 workers as a result of the increased workload at Building 1515.

Under the No Action Alternative, the economic advantages of the proposed action would not be realized. This is a negative socioeconomic impact of the No Action Alternative.

4.14 Environmental Justice

Environmental justice analyses for NEPA documents attempt to determine whether a proposed action disproportionately impacts minority and poor populations. Since the Proposed Action would not result in any significant impacts to the surrounding community, there would be no disproportionate impact to these populations.

4.15 Cumulative Impacts

There are no significant long-term adverse impacts expected from the Proposed Action. By constructing an addition to Building 1515, the Software Engineering Division is able to meet its workload requirements, including the new workload. Negligible air emissions from construction activities would occur, but are expected to contribute a very small percentage of the total air emissions at Hill AFB.

Under the No Action Alternative, the Software Engineering Division would not be able to meet its workload requirement and would not have the capability to absorb new workload.

4.16 Summary of Impacts

A summary of the impacts described in this section is provided in Table 4-1. It is not anticipated that the Proposed Action would have significant adverse environmental impacts. The Proposed Action would have positive impacts, in that it would allow the Software Engineering Division to meet its workload requirements.

Table 4-1
Anticipated Environmental Consequences from the Building 1515 Addition

Environmental Issues	Proposed Action Alternative	No-Action Alternative
Surface Water	No significant adverse impact. Short-term additional sediment runoff during construction. Implementing standard construction practices for runoff control would minimize this.	No impact.
Groundwater	No impact.	No impact.
Geology and Soils	No significant adverse impact. Short-term surface soil disturbance related to construction activities.	No impact.
Vegetation	No significant adverse impact. Disturbance of local and planted vegetation. Areas would be revegetated in the vicinities of the Proposed Action.	No impact.
Wetlands	No impact.	No impact.
Wildlife	No impact.	No impact.
Air Quality	No significant adverse impact. Negligible exhaust emissions from construction activities. Dust control measures would be implemented to control fugitive dust. Coordination with UDAQ necessary prior to construction activities.	No impact.
Cultural Resources	No anticipated adverse impact if the Draft Integrated Cultural Resources Management Plan is followed.	No impact.
Land Use	No adverse impact.	No impact.
Noise	No significant adverse impact. A slight increase in noise during construction may occur, but this would be short-term and limited to daylight hours.	No impact.
Health and Safety	No significant adverse impact.	No impact.
Transportation	No significant adverse impact. Short-term traffic delays or detours may be necessary.	No impact.
Socioeconomics	Local laborers would benefit from the increased job opportunities related to construction. Also, the Software Engineering Division will employ 135 new employees.	Hill AFB Software Engineering Division would not be able to meet its workload requirement, including absorbing increased workload.
Environmental Justice	No impact.	No impact.

Section 5
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Section 7
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Appendix A

Conformity Analysis

Total Estimated Emissions for Building 1515 Addition, Hill AFB, Utah

TOTAL PHASE 1 EMISSIONS					
Emissions tons/year					
Source Types	PM10	SOx	NOx	VOC	CO
Construction Equipment*	0.53	0.93	8.92	0.65	3.68
TOTAL	**0.53**	**0.93**	**8.92**	**0.65**	**3.68**

* Temporary emissions, during construction activities only.

TOTAL PHASE 2 EMISSIONS					
Emissions tons/year					
Source Types	PM10	SOx	NOx	VOC	CO
Construction Equipment*	0.53	0.93	8.92	0.65	3.68
TOTAL	**0.53**	**0.93**	**8.92**	**0.65**	**3.68**

* Temporary emissions, during construction activities only.

Backhoe

		Emission Factors		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 Backhoe for 200 hrs	200					
		PM10	0.14	PM10	28.00	0.01
		SOx	0.14	SOx	28.00	0.01
		NOx	1.7	NOx	340.00	0.17
		CO	0.68	CO	136.00	0.07
		VOC (+ald)	0.15	VOC	30.00	0.02

Track Dozer

		Emission Factors		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 Dozer for 200 hours	200					
		PM10	0.11	PM10	22.00	0.01
		SOx	0.14	SOx	28.00	0.01
		NOx	1.3	NOx	260.00	0.13
		CO	0.35	CO	70.00	0.04
		VOC (+ald)	0.12	VOC	24.00	0.01

Wheeled Loader

		Emission Factors		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 loader for 800 hours	800					
		PM10	0.17	PM10	136.00	0.07
		SOx	0.18	SOx	144.00	0.07
		NOx	1.9	NOx	1520.00	0.76
		CO	0.57	CO	456.00	0.23
		VOC (+ald)	0.25	VOC	200.00	0.10

Off-Highway Truck

		Emission Factors		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
2 Trucks for 1000 hours	1000					
		PM10	0.26	PM10	260.00	0.13
		SOx	0.45	SOx	450.00	0.23
		NOx	4.2	NOx	4200.00	2.10
		CO	1.8	CO	1800.00	0.90
		VOC (+ald)	0.19	VOC	190.00	0.10

Roller

		E.F.		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 Roller for 100 hrs	100					
		PM10	0.04	PM10	4.00	0.00
		SOx	0.067	SOx	6.70	0.00
		NOx	0.862	NOx	86.20	0.04
		CO	0.304	CO	30.40	0.02
		VOC (+ald)	0.083	VOC	8.30	0.00

Dump Trucks

		E.F.		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
2 Dump Trucks for 1000 hrs	2400					
2 Cement Trucks for 1000 hrs		PM10	0.2048	PM10	491.52	0.25
2 Asphalt Trucks for 400 hrs		SOx	0.454	SOx	1089.60	0.54
		NOx	4.166	NOx	9998.40	5.00
		CO	1.794	CO	4305.60	2.15
		VOC (+ald)	0.304	VOC	729.60	0.36

Miscellaneous

		E.F.		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 Grader for 400 hours	840					
1 Post Digger for 40 hours		PM10	0.14	PM10	117.60	0.06
1 Flat Bed Truck for 200 hours		SOx	0.14	SOx	117.60	0.06
1 Paver for 200 hours		NOx	1.7	NOx	1428.00	0.71
		CO	0.68	CO	571.20	0.29
		VOC (+ald)	0.15	VOC	126.00	0.06

TOTAL Emissions		
pollutant	lbs	ton/yr
PM10	1059.12	0.53
SOx	1863.90	0.93
NOx	17832.60	8.92
CO	7369.20	3.68
VOC	1307.90	0.65

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Backhoe

		Emission Factors		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 Backhoe for 200 hrs	200					
		PM10	0.14	PM10	28.00	0.01
		SOx	0.14	SOx	28.00	0.01
		NOx	1.7	NOx	340.00	0.17
		CO	0.68	CO	136.00	0.07
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		SOx	0.14	SOx	28.00	0.01
		NOx	1.3	NOx	260.00	0.13
		CO	0.35	CO	70.00	0.04
		VOC (+ald)	0.12	VOC	24.00	0.01

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		Emission Factors		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 loader for 800 hours	800					
		PM10	0.17	PM10	136.00	0.07
		SOx	0.18	SOx	144.00	0.07
		NOx	1.9	NOx	1520.00	0.76
		CO	0.57	CO	456.00	0.23
		VOC (+ald)	0.25	VOC	200.00	0.10

Off-Highway Truck

		Emission Factors		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
2 Trucks for 1000 hours	1000					
		PM10	0.26	PM10	260.00	0.13
		SOx	0.45	SOx	450.00	0.23
		NOx	4.2	NOx	4200.00	2.10
		CO	1.8	CO	1800.00	0.90
		VOC (+ald)	0.19	VOC	190.00	0.10

Roller

		E.F.		Emissions		
	hr	pollutant	lb/hr	pollutant	lbs	ton/yr
1 Roller for 100 hrs	100					
		PM10	0.04	PM10	4.00	0.00
		SOx	0.067	SOx	6.70	0.00
		NOx	0.862	NOx	86.20	0.04
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