Final

AAFES GAS STATION
at
CREECH AIR FORCE BASE
ENVIRONMENTAL ASSESSMENT

Prepared for

United States Air Force
Creech Air Force Base

And

Army Air Force Exchange Service

July 2009

ACRONYMS AND ABBREVIATIONS

AAFES	Army and Air Force Exchange Service
ACC	Air Combat Command
AFB	Air Force Base
AFI	Air Force Instruction
AQRV	Air Quality Related Value
AST	Aboveground Storage Tank
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAS	Central Accumulation Point
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CF	Cubic Foot/Feet
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CWA	Clean Water Act
DAQEM	Department of Air Quality and Environmental Management
dB	Decibel
DoD	Department of Defense
DOE	Department of Energy
DRMO	Defense Reutilization and Marketing Office
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
ERP	Environmental Restoration Program
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
ft	Foot/Feet
gpy	gallons per year
H_2S	Hydrogen Sulfide
H_2SO_4	Sulfuric acid mist
HAPs	Hazardous Air Pollutants
IAP	Initial Accumulation Point
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
JUAS COE	Joint Unmanned Aerial Systems Center of Excellence
km	Kilometer
LEED	Leadership in Energy & Environmental Design
$\mu g/m^3$	micrograms per cubic meter
NAAQS	National Ambient Air Quality Standards
NDEP	Nevada Division of Environmental Protection
NEC	National Electrical Code
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxide
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
NSR	New Source Review
NTTR	Nevada Test and Training Range
O_3	Ozone
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OPA	Oil Pollution Act
OSHA	Occupational Health and Safety Act
Pb	Lead
$PM_{2.5}$	Particulate Matter less than 2.5 Microns
PM_{10}	Particulate Matter less than 10 Microns
ppm	Parts Per Million
PSD	Prevention of Significant Deterioration
Q/D	Quality/Distance
RCRA	Resource Conservation and Recovery Act
RS	Reconnaissance Squadron
SDCC	Southern Desert Correctional Center
SF	Square Foot/Feet
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SNHD	Southern Nevada Health District
SO_2	Sulfur Dioxide
SPCC	Spill Prevention, Control, and Countermeasures
STI	Steel Tank Institute
SWPPP	Stormwater Pollution Prevention Plan
UAS	Unmanned Aerial Systems
UFC	Unified Facilities Criteria
U.S.	United States
USACE	United States Army Corps of Engineers
USC	United States Code
USCB	United States Census Bureau
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank
VOC	Volatile Organic Compound

FINDING OF NO SIGNIFICANT IMPACT

1.0 NAME OF THE PROPOSED ACTION

Army and Air Force Exchange Service (AAFES) Gas Station at Creech Air Force Base (AFB).

2.0 DESCRIPTION OF THE PROPOSED ACTION AND NO-ACTION ALTERNATIVE

AAFES proposes to construct a gas station on Creech AFB. The gas station would include a single pump filling station on a concrete slab with a weather overhang. Gasoline will be stored in an underground storage tank meeting regulations for spill containment measures. The proposed action would add the filling station service to the base; the service does not currently exist on Creech AFB. AAFES considered three alternative siting locations (including the proposed site) and alternative storage tank design. In addition, to the proposed action, the no-action alternative was also analyzed. Under the no-action alternative, AAFES would not construct a gas station on Creech AFB at this time.

3.0 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

The Environmental Assessment (EA) provides an analysis of the potential environmental consequences resulting from implementation of the proposed action. Thirteen resource categories were investigated and six; air quality, soils and water, biological resources, socioeconomics, land management and use, and hazardous materials and waste management, were thoroughly analyzed to identify potential impacts. Cultural resources, noise, health and safety, transportation, environmental justice, and floodplains were evaluated and were determined not to be affected by the proposed action. According to the analysis in this EA, implementation of the proposed action would not result in significant impacts to any resource category. The potential impacts under the proposed action and the no-action alternative are summarized below.

Air Quality. Impacts to air quality associated with construction activities would be short-term and contribute less than 0.01 percent to the regional air emissions, thereby resulting in no adverse impacts to regional air quality. Under the no-action alternative, impacts to air quality would not be expected since baseline emissions would remain unchanged; therefore, implementing the no-action alternative would not result in adverse effects to the regional air quality.

Soils and Water Resources. No long-term adverse impacts to soils or surface water would occur; slight impacts would be short-term resulting in negligible effects. Groundwater sources would not be affected from construction activities associated with the proposed action. Under the no-action alternative, the gas station would not be constructed on Creech AFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Biological Resources. No impacts to vegetation or wildlife would be expected. No threatened, endangered, or sensitive species are known to occur on the proposed AAFES Gas Station site on Creech AFB. Under the no-action alternative, no changes to existing biological resources would occur since the proposed construction would not take place.

Socioeconomics. A short-term, positive input into the regional economy would occur during the construction period. The proposed action may result in a loss of fuel sales at the two gas stations in Indian Springs; however, the influx of personnel associated with the Unmanned Aerial Systems (UAS) force structure changes would likely offset the potential losses resulting in no significant impact. No changes would be anticipated with implementation of the no-action alternative.

Land Management and Use. Land use designation would change from Open Space to Community Commercial. This change would not be inconsistent with the overall land use planning of Creech AFB. No impacts or change to land use designation would occur under the no-action alternative.

Hazardous Materials and Waste Management. No changes to hazardous materials or waste streams would occur. No Environmental Restoration Program (ERP) sites would be disturbed as none are found in the project area. Best management practices along with leak detection systems installed for the underground storage tank would minimize impacts for this action. No impacts to the handling of hazardous materials or waste management would occur through implementation of the no-action alternative since the AAFES Gas Station would not be constructed.

4.0 FINDINGS

On the basis of the findings of the EA, conducted in accordance with the requirement of the National Environmental Policy Act, the Council on Environmental Quality regulations, and Air Force Instruction 32-7061 as promulgated in 32 Code of Federal Regulations Part 989, and after careful review of the potential impacts of the proposed action and no-action alternative, I find that there would be no significant impact on the quality of the human or natural environment from the implementation of the proposed action or no-action alternative described in the EA. Therefore, I find there is no requirement to develop an Environmental Impact Statement.

Steven P. Winklmann

STEVEN P. WINKLMANN
Colonel, USAF
Vice Commander, 99th Air Base Wing

18 Aug 09
Date

COVER SHEET
AAFES GAS STATION AT CREECH AIR FORCE BASE
ENVIRONMENTAL ASSESSMENT

Responsible Agency: Army and Air Force Exchange Service

Proposed Action: The Army and Air Force Exchange Service (AAFES) proposes to construct a gas station at Creech Air Force Base (AFB), Nevada. The AAFES gas station would include a single pump filling station on a concrete slab with a weather overhang. Gasoline would be stored in an underground storage tank meeting regulations for spill containment measures.

Written comments and inquiries regarding this document should be directed to:

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4430 Grissom Ave
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ATTN: Michael Estrada

Designation: Final Environmental Assessment (EA)

Abstract: The purpose of the proposed action is to construct a gas station on Creech AFB. The base currently does not provide personal vehicle refueling; therefore, construction of the AAFES gas station would provide Creech AFB with a modern vehicle refueling facility. This EA analyzed the potential environmental consequences of implementing the proposed action and alternatives. The analysis indicates that implementing the proposed action (i.e., construct an AAFES Gas Station) at Creech AFB would not result in a significant impact to any resource category. In addition, no significant cumulative impacts would be anticipated from implementation of the proposal with other reasonably foreseeable actions.

Final

AAFES GAS STATION AT CREECH AFB ENVIRONMENTAL ASSESSMENT

United States Air Force
Creech Air Force Base

And

Army Air Force Exchange Service

July 2009

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

This Environmental Assessment (EA) analyzes the potential environmental consequences resulting from the Army and Air Force Exchange Service (AAFES) proposal to construct a gas station on Creech Air Force Base (AFB). The proposed action would provide personal vehicle refueling services that are currently unavailable on Creech AFB.

This EA has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 United States Code [USC] 4321 *et seq.*), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations (CFR) Part 1500-1508), and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process* (EIAP), as codified in 32 CFR Part 989.

PURPOSE AND NEED FOR THE AAFES GAS STATION

The purpose of the proposed action is to construct an AAFES gas station on Creech AFB to meet the needs of Air Force personnel, their families, and retired military. There has been greater than a 25 percent increase in personal assigned to Creech AFB. There currently is no gas station on base for members to fuel their vehicles. An on-base gas station for military personnel is needed for three key reasons; security, price differentiation, and quality of life. Creech AFB personnel support continuous 24/7 operations in support of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Military personnel support combat operations from Creech AFB 24 hours a day/7 days per week, requiring them to get to and from the base in all weather, security, and economic conditions. During times of increased fuel demand, supply limitations, or service inaccessibility, Creech AFB personnel must have an available and reliable source of fuel. Additionally, this continuous demand for onsite personnel requires a secure, protected source of gas for military members. During times of increased security precautions and force protection measures, protection of gas and personnel necessitate on-base availability for such a critical resource to this remote location.

PROPOSED ACTION AND ALTERNATIVES

Under the proposed action, AAFES would construct a gas station on the northeast side of Creech AFB. The gas station would include a single pump filling station on a concrete slab with a weather overhang. Gasoline would be stored in an UST meeting regulations for spill containment measures. There would be a canopy cover over the pumps to protect personnel from the weather. Alternative sites and storage tank design were also considered.

The EA also assesses the no-action alternative. The no-action alternative represents baseline conditions. Under the no-action alternative, the AAFES gas station proposal would not be implemented and the

services provided by a gas station would remain unavailable at Creech AFB. This alternative would not meet the continued future needs of the military members of Creech AFB, their dependents, or retirees that require the use of this service.

MITIGATION MEASURES

In accordance with 32 CFR Part 989.22, the Air Force must indicate if any mitigation measures would be needed to implement the proposed action at Creech AFB. For purposes of this EA, to construct an AAFES Gas Station on Creech AFB, no mitigation measures would be needed to arrive at a Finding of No Significant Impact (FONSI).

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

According to the analysis in this EA, implementation of the proposed action would not result in long-term adverse or significant impacts to any resource category. Thirteen resource categories were investigated and six; air quality, soils and water, biological resources, socioeconomics, land management and use, and hazardous materials and waste management, were thoroughly analyzed to identify potential impacts. Cultural resources, noise, health and safety, transportation, environmental justice, and floodplains were evaluated and were determined not to be affected by the proposed action. According to the analysis in this EA, implementation of the proposed action would not result in significant impacts to any resource category. The potential impacts under the proposed action and the no-action alternative are summarized below.

Air Quality. Impacts to air quality associated with construction activities would be short-term and contribute less than 0.01 percent to the regional air emissions, thereby resulting in no adverse impacts to regional air quality. Under the no-action alternative, additional impacts to air quality would not be expected since baseline emissions would remain unchanged; therefore, implementing the no-action alternative would not result in adverse effects to the regional air quality.

Soils and Water Resources. No long-term adverse impacts to soils or surface water would occur; slight impacts would be short-term resulting in negligible effects. Groundwater sources would not be affected from construction activities associated with the proposed action. Under the no-action alternative, the gas station would not be constructed on Creech AFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Biological Resources. No impacts to vegetation or wildlife would be expected. No threatened, endangered, or sensitive species are known to occur on the proposed AAFES Gas Station site on Creech AFB. Under the no-action alternative, no changes to existing biological resources would occur since the proposed construction would not take place.

Socioeconomics. A short-term, positive input into the regional economy would occur during the construction period. The proposed action may result in a loss of fuel sales at the two gas stations in Indian Springs; however, the influx of personnel associated with the UAS force structure changes would likely offset the potential losses resulting in no significant impact. No changes would be anticipated with implementation of the no-action alternative.

Land Management and Use. Land use designation would change from Open Space to Community Commercial. This change would not be inconsistent with the overall land use planning of Creech AFB. No impacts or change to land use designation would occur under the no-action alternative.

Hazardous Materials and Waste Management. No changes to hazardous materials or waste streams would occur. No ERP sites would be disturbed as none are found in the project area. Best management practices along with leak detection systems installed for the underground storage tank would minimize impacts for this action. No impacts to the handling of hazardous materials or waste management would occur through implementation of the no-action alternative since the AAFES Gas Station would not be constructed.

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CHAPTER 1

PURPOSE AND NEED FOR THE PROPOSED ACTION

CHAPTER 1
PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 INTRODUCTION

The Army and Air Force Exchange Service (AAFES) proposes to construct a gas station at Creech Air Force Base (AFB), Nevada. The gas station would feature a single pump filling station on a concrete slab with a weather overhang. Gasoline would be stored in an UST meeting regulations for spill containment measures. The gas station would add personal vehicle refueling services to Creech AFB which are currently are unavailable on the base.

This Environmental Assessment (EA) has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 United States Code [USC] 4321 *et seq.*), Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations (CFR) Part 1500-1508), and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process* (EIAP), as codified in 32 CFR Part 989. This EA analyzes the potential environmental consequences of implementing the proposed action and no-action alternative. Under the no-action alternative, AAFES would not construct a new gas station on Creech AFB at this time. No other alternatives were considered as none would meet the overall purpose and need.

1.2 BACKGROUND

Creech AFB is located near the town of Indian Springs, Nevada; approximately 45 miles northwest of Las Vegas, along United States (U.S.) Highway 95 (US-95) (Figure 1-1). The base is home to the 432d Wing under Air Combat Command's 12th Air Force. The 432d also reports to U.S. Air Forces Central Command. The 432d Wing and 432d Air Expeditionary Wing (AEW) consists of combat-ready airmen who fly the MQ-1 Predator and MQ-9 Reaper aircraft to support American and Coalition warfighters (Creech 2009a). The unmanned aircraft systems provide real-time reconnaissance, surveillance, and precision attack against fixed and time-critical targets. In the 432d Operations Group there are the 11th, 15th, and 17th Reconnaissance Squadrons (RS) and the 42nd Attack Squadron whose primary missions are to provide qualification training (11th RS) and provide theater commanders with deployable long-range, long-endurance, real-time aerial reconnaissance, surveillance, target acquisition and attack flying of the UAS aircraft. The 432nd Maintenance Group ensures airmen, MQ-1B and MQ-9 aircraft, ground control stations, Predator Primary Satellite Links, and

a global integrated communications network are fully mission capable to support aircrew training, combat operations, operational test and evaluation, and natural disaster support. Also based at Creech AFB is the Joint Unmanned Aircraft Systems Center of Excellence (JUAS COE). Reporting unit to the Commander, U.S. Joint Forces Command, the JUAS COE operationally focuses on developing joint UAS employment and training standards, providing relevant products, analysis and information to the joint force. This organization provides support to the joint operator, services and combatant commands by facilitating the development and integration of common UAS operating standards, capabilities, concepts, technologies, doctrine, tactics, techniques, procedures and training. The 99th Security Forces Group, Ground Combat Training Squadron and the 98th Range Support Squadron are also based at Creech AFB. (Creech, 2009b).

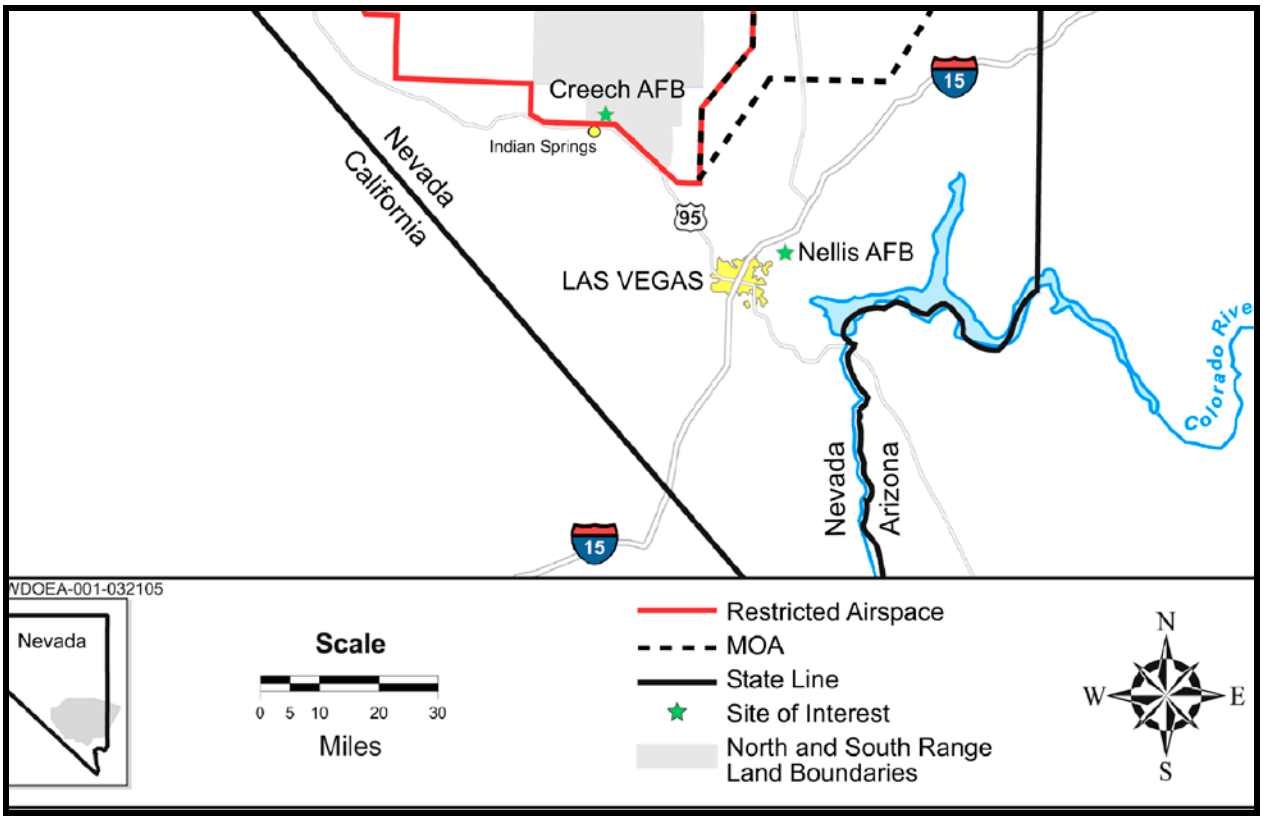

Figure 1-1. Nellis AFB and Creech AFB Location Map

1.3 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed action is to construct an AAFES gas station on Creech AFB to meet the needs of Air Force personnel, their families, and retired military. There has been greater than a 25 percent increase in personal assigned to Creech AFB. There is currently no gas station on base for members to fuel their vehicles. An on-base gas station for military personnel is needed for three key reasons; security, price differentiation, and quality of life. Creech AFB personnel support continuous 24/7 operations in support of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Military personnel support combat operations from Creech AFB 24 hours a day/7 days per week, requiring them to get to and from the base in all weather, security, and economic conditions. During times of increased fuel demand, supply limitations, or service inaccessibility, Creech personnel must have an available and reliable source of fuel. Additionally, this continuous demand for onsite personnel requires a secure, protected source of gas for military members. During times of increased security precautions and force protection measures, protection of gas and personnel necessitates on-base availability for such a critical resource to this remote location.

Due to lack of competition and an isolated location, the two gas stations in the nearby town of Indian Springs have previously charged approximately 40 cents more per gallon than gas stations in Las Vegas located approximately 25 miles away. Because of the remoteness and lack of competition, gas prices tend to be higher in rural areas and Indian Springs is no exception. During the height of gas prices, the difference of cost was a wider margin than it is now, but current prices are about 10 cents more a gallon with a maximum of about 30 cents per gallon. Constructing an AAFES gas station on Creech AFB would provide flexibility for those base members working in a 24-hour operations environment. In addition, a gas station on Creech AFB would offset limited fueling options for military personnel.

Military members at Creech AFB, working under high tempo operations, are one of the AF's highest stressed populations and it is necessary to reduce these stress levels. Actions that provide increased convenience and improved quality of life, such as an on-base gas station, alleviate some of this stress by minimizing the time required for conducting day-to-day necessities. Indian Springs' services are out of the way for commuting personnel who enter and exit the base via the East Gate. A gas station on the east side of the base would provide convenience for overworked personnel.

Finally, at the recent Site Activation Task Force, Headquarters Air Combat Command (ACC) confirmed and reinforced the need for a Creech AFB gas station. Creech's growth of more than 25 percent warranted a subsidized AAFES establishment. The local leadership, in consultation with ACC, determined that a gas station was the best investment to support the 24/7 mission.

Construction of an AAFES Gas Station would provide Creech AFB with modern fuel refilling services. The AAFES Gas Station would include a one pump two hose filling station, a concrete slab, a 12,000-gallon fuel storage tank, and the necessary spill containment measures. The site of the proposed gas station would be conveniently located in the northeast portion of the base adjacent to the fitness center and medical clinic. There would be a canopy cover over the pumps to protect personnel from the weather. The gas station would be unmanned; therefore spill prevention equipment would be installed on the pumps. There would be cut–off valves at both end of each hose, a shear valve at the base of the pump, and an electronic sensor in the dispenser to detect fuel leakage. In order to add basic fuel refilling services for active duty, retired personnel and their dependents, AAFES needs to construct the proposed gas station at Creech AFB. Gas services exist on the base but are for government vehicles only and cannot dispense to privately owned vehicles.

CHAPTER 2

DESCRIPTION OF THE PROPOSED ACTION AND NO-ACTION ALTERNATIVE

CHAPTER 2
DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This chapter describes the AAFES proposal to construct a gas station at Creech AFB. The AAFES Gas Station would add fuel refilling services not currently available at Creech AFB.

2.1 PROPOSED ACTION AND ALTERNATIVES

The proposed action is to construct a new AAFES Gas Station adjacent to the medical center and new fitness center on the north side of the base. The gas station would be located in a vacant area near the ongoing construction for the UAS facilities as shown on Figure 2-1. The gas station would include a single pump filling station on a concrete slab with a weather overhang. Gasoline would be stored in an underground storage tank (UST) meeting regulations for spill containment measures. A conceptual site plan is shown on Figure 2-2.

Figure 2-1 Proposed Action and Alternative Locations

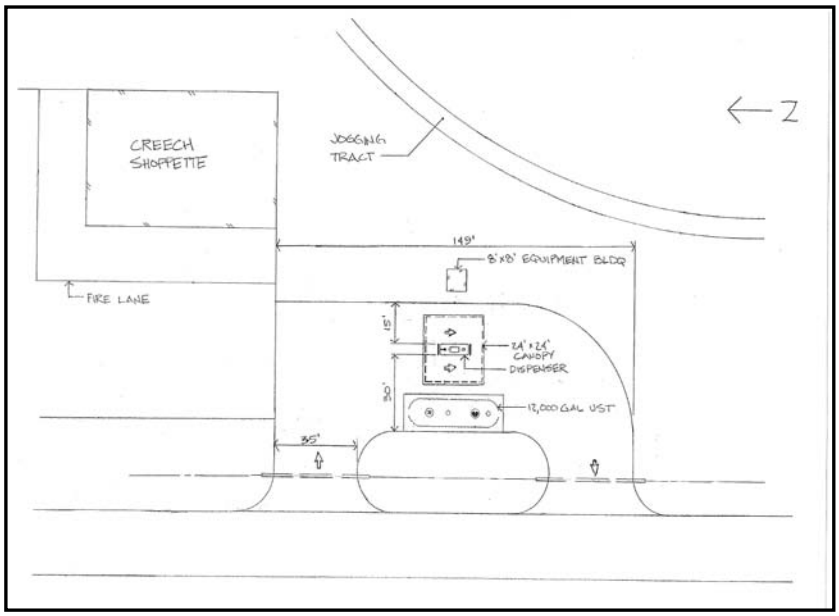

Figure 2-2 Conceptual Site Layout

The gas station equipment building would be constructed on a ground level, reinforced concrete floor slab with supported steel beams and columns. The roof construction would consist of a metal deck supported on steel joists, beams, and columns. The facility design would be compatible with Creech AFB architectural standards. Supporting utility and communication infrastructure would be incorporated into the facility design. The overall plot size would be about 0.42 acres (149 x 120 feet).

Construction of the AAFES Gas Station would include the following design principles:

- Antiterrorism Construction Standards – the new facility would incorporate Unified Facilities Criteria (UFC) 4-010-01 (*Department of Defense Minimum Antiterrorism Standards for Buildings*);
- Architectural Design Standards – the new facility would reflect modern design standardization with an emphasis on sustainability and would conform to criteria in and technical guidance of Military Handbook 1190 (*Facility Planning and Design Guide*); Air Force Instruction 32-1023 (*Design and Construction Standards and Execution of Facility Construction Projects*); Air Force Handbook 32-1084 (*Facilities Requirements*); and UFC 3-600-1 (*Fire Protection Engineering for Facilities*). Objectives include low environmental impact, optimal and efficient use and reuse of materials and resources using the Leadership in Energy and Environmental Design (LEED) Green Building Rating System; and
- Parking lot design and construction would be in accordance with UFC 3-250-01FA, *Pavement Design for Roads, Streets, Walks and Open Storage Areas*. Concrete curb and gutter would be

installed along the pavement edges and around the parking area islands and along the perimeter of parking areas.

- A Stage I and Stage II CARB approved vapor recovery system would be installed on the storage tank. The system would undergo and pass a performance test prior to the start of operation.
- Storage tank design would include requirements set forth by 40 CFR 280, *Underground Storage Tanks*; Nevada Administrative Code 459; and other applicable nationally recognized codes. Additionally, the tank and associated equipment manufacturer's installation specifications would be incorporated into the design and installation of the tank.

The gas station would be unmanned and designed and built with leak prevention safety equipment. Shut-off valves would be installed at both ends of each hose. A shear valve would be installed at the base of the pump below or at grade level, and an electronic sensor would be installed at the base of the dispenser to detect leaking fuel.

2.1.1 Alternatives

Several alternatives for implementing the proposed action were investigated; these included alternative site locations and storage tank design. The proposed action location would be adjacent to the running track and Shoppette near the UAS hangars. This location is depicted on Figure 2-1 as the Proposed Action Location. A site located northeast of the proposed location was considered and is labeled Alternative 1 on Figure 2-1. A second location along the main access road to the UAS hangars was investigated and is depicted on Figure 2-1 as Alternative 2. Both Alternatives 1 and 2 would fulfill the purpose and need of the action. Each of the alternative locations would be sufficiently close to each other so that the impacts described in Chapter 3 of this EA would be applicable to any of the alternative sites proposed. Because of the close similarities of the locations, these alternative locations are described under the proposed action and are not specifically discussed further.

Alternative 3 to the proposed action would be to use an aboveground storage tank (AST) instead of an underground storage tank. The aboveground storage tank would be constructed with the required secondary containment and safety equipment specified by Nevada Revised Statutes, Nellis AFB and Air Force guidance documents.

2.2 NO-ACTION ALTERNATIVE

The no-action alternative represents baseline conditions. Under the no-action alternative, the AAFES Gas Station proposal would not be implemented. This alternative would not meet the continued future needs of the military members of Creech AFB, their dependents, or retirees that require the use of these services.

2.3 ENVIRONMENTAL IMPACT ANALYSIS PROCESS

This EA examines the affected environment for construction of the AAFES Gas Station at Creech AFB. It considers the current conditions of the affected environment and compares those to the no-action alternative. It also examines the cumulative impacts within the affected environment of these alternatives as well as past, present, and reasonably foreseeable actions of the Air Force and other federal, state, and local agencies. The steps involved in the EIAP used to prepare this EA are outlined below.

1. *Conduct Interagency and Intergovernmental Coordination for Environmental Planning (IICEP).* IICEP requires comments to be solicited from local governments as well as federal and state agencies to ensure their concerns and issues about the AAFES Gas Station proposal are included in the analysis. It also requires that the public in the region local to the proposed action be solicited for their comments as well. In February 2009, Creech AFB sent IICEP letters to these agencies requesting their input on the proposal. Chapter 6 provides the list of people and agencies contacted and Appendix A provides copies of IICEP correspondence.

2. *Prepare a draft EA and Finding of No Significant Impact (FONSI).* The first comprehensive document for public and agency review is the draft EA and FONSI. This document examines the environmental impacts of the proposed action and no-action alternative.

3. *Announce that the draft EA and draft FONSI have been prepared.* Advertisements in the Las Vegas Review Journal notifying the public as to the availability of the draft EA and draft FONSI for review in local libraries. After the draft EA and draft FONSI were distributed, a 30-day public comment period began on April 17, 2009 and ran through May 18, 2009.

4. *Provide a public comment period.* The goal during this process is to solicit comments concerning the analysis presented in the draft EA and draft FONSI. On 20 May 2009, comments were received from the Indian Springs Town Advisory Board and the Indian Springs Civic Association. Responses to their comments can be found in Appendix A. Also, comments were received from Clark County Department of Air Quality and Environmental Management (DAQEM) and responses were incorporated into the document.

5. *Prepare a final EA.* Following the public comment period, a final EA is prepared. This document is a revision (if necessary) of the draft EA, includes consideration of public and agency comments, and provides the decisionmaker with a comprehensive review of the proposed action and the potential environmental impacts.

6. *Issue a FONSI*. The final step in the process is either a signed FONSI, if the analysis supports this conclusion, or a determination that an environmental impact statement (EIS) would be required for the proposal.

2.4 OTHER REGULATORY AND PERMIT REQUIREMENTS

This EA has been prepared in compliance with NEPA, other federal statutes, such as the Clean Air Act (CAA), the Clean Water Act (CWA), Endangered Species Act (ESA), the National Historic Preservation Act, Executive Orders, and other applicable statutes and regulations. Creech AFB has initiated informal consultation with the U.S. Fish and Wildlife Service (USFWS) and the Nevada State Historic Preservation Office (SHPO) through IICEP letters. Table 2.1 lists the applicable federal, state, and local regulatory requirements and potential for permit requirements if the proposed action were undertaken. Construction activities greater than one acre are required to submit a Storm Water Pollution Prevention Plan (SWPPP) and a stormwater discharge permit. Since the proposed action would be less than a half acre (including construction lay-down areas), a permit would not be required although best management practices to reduce runoff would be implemented. A second, independent project for constructing the Shoppette is located adjacent to the proposed action location. If both projects are implemented simultaneously, then a permit for the aggregate acreage could be required.

Table 2.1 Review and Permit Requirements

Type of Permit or Regulatory Requirement	*Issue*	*Administering Agency*
Air Quality	Authority to Construct	Clark County Department of Air Quality and Environmental Management
Air Quality	Clark County Surface Disturbance Permit	Clark County Department of Air Quality and Environmental Management
Underground Storage Tank	UST Installation Permit	Southern Nevada Health District

2.5 MITIGATION MEASURES

In accordance with 32 CFR Part 989.22, the Air Force must indicate if any mitigation measures would be needed to implement the proposed action at Creech AFB. For purposes of this EA, to construct an AAFES Gas Station on Creech AFB, no mitigation measures will be needed to arrive at a FONSI.

2.6 SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

According to the analysis in this EA, implementation of the proposed action would not result in long-term adverse or significant impacts to any resource category. The potential environmental impacts under the proposed action and the no-action alternative are summarized below.

Air Quality. Impacts to air quality associated with construction activities would be short-term and contribute less than 0.01 percent to the regional air emissions, thereby resulting in no adverse impacts to regional air quality. Under the no-action alternative, impacts to air quality would not be expected since baseline emissions would remain unchanged; therefore, implementing the no-action alternative would not result in adverse effects to the regional air quality.

Soils and Water Resources. No long-term adverse impacts to soils or surface water would occur; slight impacts would be short-term resulting in negligible effects. Groundwater sources would not be affected from construction activities associated with the proposed action. Under the no-action alternative, the gas station would not be constructed on Creech AFB at this time; therefore, impacts to these resources beyond baseline conditions would not be expected.

Biological Resources. No impacts to vegetation or wildlife would be expected. No threatened, endangered, or sensitive species are known to occur on the proposed AAFES Gas Station site on Creech AFB. Under the no-action alternative, no changes to existing biological resources would occur since the proposed construction would not take place.

Socioeconomics. A short-term, positive input into the regional economy would occur during the construction period. The proposed action may result in a loss of fuel sales at the two gas stations in Indian Springs; however, the influx of personnel associated with the UAS force structure changes would likely offset the potential losses resulting in no significant impact. No changes would be anticipated with implementation of the no-action alternative.

Land Management and Use. Land use designation would change from Open Space to Community Commercial. This change would not be inconsistent with the overall land use planning of Creech AFB. No impacts or change to land use designation would occur under the no-action alternative.

Hazardous Materials and Waste Management. No changes to hazardous materials or waste streams would occur. No Environmental Restoration Program sites would be disturbed as none are found in the project area. Best management practices along with leak detection systems installed for the underground storage tank would minimize impacts for this action. No impacts to the handling of hazardous materials or waste management would occur through implementation of the no-action alternative since the AAFES Gas Station would not be constructed.

CHAPTER 3

DESCRIPTION OF THE AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

CHAPTER 3
DESCRIPTION OF THE AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 ANALYSIS APPROACH

NEPA requires focused analysis of the areas and resources potentially affected by an action or alternative. It also provides that an EA should consider, but not analyze in detail, those areas or resources not potentially affected by the proposal. Therefore, an EA should not be encyclopedic; rather, it should be succinct. NEPA also requires a comparative analysis that allows decision makers and the public to differentiate among the alternatives, therefore, this EA focuses on those resources that would be affected by the proposed construction of an AAFES Gas Station on Creech AFB, Nevada.

CEQ regulations (40 CFR Parts 1500-1508) for NEPA also require an EA to discuss impacts in proportion to their significance and present only enough discussion of other than significant issues to show why more study is not warranted. The analysis in this EA considers the current conditions of the affected environment and compares those to conditions that might occur should either of the alternatives (i.e., proposed action and no-action) be implemented.

Affected Environment

Evaluation and analysis of the proposed action indicate that resources generally subject to ground disturbing activities have the highest potential to be affected. For this EA, the potentially affected environment centers on the proposed construction location as well as the natural, cultural, and socioeconomic resources they contain or support.

Resources Analyzed

Table 3-1 presents the results of the process of identifying resources to be analyzed in this EA. This assessment evaluates air quality; soils and water resources; biological resources; socioeconomics; land management and use; and hazardous materials and waste management. These resources are analyzed because they may be potentially affected by implementation of the proposed action.

Table 3-1. Resources Analyzed in the Environmental Impact Analysis Process		
Resource	***Potentially Affected by Proposed Action Activities***	***Analyzed in this EA***
Air Quality	Yes	Yes
Soils and Water Resources	Yes	Yes
Biological Resources	Yes	Yes
Socioeconomics	Yes	Yes
Land Management and Use	Yes	Yes
Hazardous Materials and Waste Management	Yes	Yes
Cultural Resources	No	No
Noise	No	No
Health and Safety	No	No
Transportation	No	No
Environmental Justice	No	No
Floodplains	No	No

Resources Eliminated from Further Analysis

Numerous resources were assessed (refer to Table 3-1) that, in accordance with CEQ regulations warrant no further examination in this EA. The following provides these resources and describes the rationale for this approach.

Cultural Resources

Section 106 of the National Historic Preservation Act of 1966 requires that Federal agencies take into account the effects of their undertakings on historic properties. Efforts to identify and evaluate cultural resource properties for the following projects according to 36 CFR 800.4 are described in a cultural resources inventory report titled *Archaeological Survey of the Indian Springs Air Force Auxiliary Field*.

As a result of the inventory documented in the cultural resource report, no archaeological properties were found within the Area of Potential Effect for the project location. The report was forwarded to the Nevada State Historic Preservation Office for review. SHPO submitted concurrence letters to the Air Force, dated 26 March and 5 Jul 96, with concurrence on determinations of no eligible sites and acceptance of the results of the report. The letter indicated that those areas not within the APE of the eligible sites would have no effect on projects using such portions. This concluded Section 106 consultation.

Noise

Noise is often defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, diminishes the quality of the environment, or is otherwise annoying. Human response to noise varies by the type and characteristics of the noise source, the distance from the source, receptor sensitivity, and time of day. Noise can be intermittent or continuous, steady or impulsive, and it may be generated by stationary or mobile sources. Sound levels are expressed in

decibels (dB), usually weighted for human hearing. Construction activities would be noticeable but unlikely to cause an increase in noise above current levels; increases would be minor, short-term, and temporary. The daily operation of motor vehicles in and around Creech AFB is considered a minor source of noise. Typically, the noise level for vehicle operations would range from 50 dB (for light traffic) to 80 dB for diesel trucks. Noise due to construction and maintenance equipment would not change baseline noise levels on the installation; therefore, further evaluation of this resource is not warranted. Noise generated from construction activities would be minor, short-term, and intermittent, resulting in no measurable effect to the adjacent facilities. Baseline noise levels on the base would not be expected to change through implementation of the proposed action alternative.

Health and Safety

Effects to health and safety in relation to construction activities would be minimal and no different from standard, on-going activities occurring at Creech AFB. During construction, prescribed industrial safety standards would be followed. There are no specific aspects of this proposal's construction operations that would create any unique or extraordinary safety issues. Since no aspect of the project proposal or the no-action alternative would alter the health and safety conditions to persons on the base, this resource has been eliminated from further analysis. Comments to the draft EA expressed safety concerns about an unattended gas station and traffic at the East Gate. The design of pump would make the likelihood of an accidental release of fuel negligible. Furthermore, most military personnel routinely drive government vehicles in the course of their work. The military gas stations at Creech AFB and Nellis AFB are both unmanned and safety procedures are posted for those that use the military gas stations. Traffic concerns are discussed in the transportation subsection below.

Transportation

Transportation and circulation refer to the movement of vehicles throughout a road and highway network. Primary roads, such as major highways, are principal arterials designed to move traffic and not necessarily to provide access to all adjacent areas. Secondary roads feed arterials that collect traffic from common areas and transfer it to primary roads. Transportation resources refer to the infrastructure and equipment required for the movement of people, raw materials, and manufactured goods in geographic space. Due to its remote location, the roadway network surrounding Creech AFB is minimal. Access consists primarily of U.S. 95, which is the only highway to Las Vegas and to points north. A few local roads exist to serve the community of Indian Springs, south of the Creech AFB Main Gate. The remaining roadways in the region provide limited access to homes, ranches, and federal lands. The Creech AFB roadway network includes streets, parking areas, and miscellaneous pavements. The Infrastructure Program Review of Roadway Pavement Systems at Creech AFB reports that the overall engineering condition assessment rating of the pavement system is "adequate." The Main Gate has two inbound and two outbound lanes and is the main access arterial to Indian Springs. The Main Gate also provides access to the West Frontage Road. The East Gate has one inbound and one outbound lane and is assumed to function as a single lane. The East Gate accesses U.S. 95 at a point where the highway is

divided, although there is a break in the median at that point. Historically, the East Gate has been used only for construction traffic and during times of threat when the Main Gate is closed for security reasons. Concerns about the safety and traffic of fuel trucks using the East Gate were raised during the public comment period. AAFES expects to sell about 9,000 gallons per month; most tanker trucks hold between 5,000 and 10,000 gallons. This equates to about one or two tanker trips per month. This increase of traffic would be negligible and would produce imperceptible change to the accident rate on US-95 near the East Gate. Plans are underway to modify the East Gate and a separate NEPA document will be issued later this year. This action is a separate action and independent from the decision to construct a gas station on Creech AFB.

Environmental Justice and Protection of Children

In 1994, Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, was issued to focus attention of federal agencies on human health and environmental conditions in minority and low-income communities and to ensure that disproportionately high and adverse human health or environmental effects on these communities are identified and addressed. In 1997, Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks (Protection of Children)*, was issued to ensure the protection of children. Environmental justice addresses the disproportionate effect of a federal action on low-income or minority populations. If implementation of the proposed action were to have the potential to significantly affect people, those effects would have to be evaluated for how they adversely or disproportionately affect low-income or minority communities. Because the proposed action takes place within the confines of the base, no disproportionate populations occur within the areas affected by the proposed action; minority or low-income groups would not be disproportionately affected by implementation of the proposed action. No aspect of this construction proposal would place children at risk. In summary, there would be no anticipated disproportionate impact to the human health or environmental conditions in minority or low-income communities. Neither the proposed action nor no-action alternative would result in an adverse impact to the health and safety of children; therefore, further analysis of this resource is not warranted for this EA.

Floodplains

Floodplains are, in general, those lands most subject to recurring floods, situated adjacent to rivers and streams, and coastal areas. As a topographic category, a floodplain is quite flat and lies adjacent to the stream or river. Floods are usually described in terms of their statistical frequency. A “100-year flood” or “100-year floodplain” describes an event or an area subject to a percent probability of a certain size flood occurring in any given year. Because floodplains can be mapped, the boundary of the 100-year flood is commonly used in floodplain mitigation programs to identify areas where the risk of flooding is significant. The northwest corner of Creech AFB lies within a 100-year floodplain. The proposed action would not place the gas station within the 100-year floodplain. Further evaluation of this resource for the proposed action and no-action alternative is not warranted.

3.2 AIR QUALITY

Air quality in a given location is described by the concentration of various pollutants in the atmosphere. A region's air quality is influenced by many factors including the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions.

The 1970 Clean Air Act and its subsequent amendments (CAAA) established the National Ambient Air Quality Standards (NAAQS) for seven "criteria" pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than 10 and 2.5 microns (PM_{10} and $PM_{2.5}$), and lead (Pb). These standards represent the maximum allowable atmospheric concentrations that may occur while ensuring protection of public health and welfare, with a reasonable margin of safety. Short-term standards (1-, 8-, and 24-hour periods) are established for pollutants contributing to acute health effects, while long-term standards (quarterly and annual averages) are established for pollutants contributing to chronic health effects. On March 12, 2008, the U.S. Environmental Protection Agency (USEPA) promulgated a revision to the 8-hour ozone standard for ground-level ozone, reducing it from 0.08 parts per million (ppm) to 0.075 ppm. It became effective on June 12, 2008. The Nevada Division of Environmental Protection (NDEP), Bureau of Air Quality has adopted the NAAQS, with the following exceptions and additions: 1) the state annual SO_2 standard is more stringent than the national standard; 2) Nevada has added an 8-hour CO standard specific to elevations greater than 5,000 feet above mean sea level; and 3) Nevada has added standards for visibility impairment and 1-hour hydrogen sulfide (H_2S) concentrations.

In addition to the ambient air quality standards for criteria pollutants, national standards exist for hazardous air pollutants (HAPs). Examples of HAPs include benzene, which is found in gasoline; perchlorethlyene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper. Examples of other listed air toxics include dioxin, asbestos, toluene, and metals such as cadmium, mercury, chromium, and lead compounds. The majority of HAPs are volatile organic compounds (VOCs).

Based on measured ambient criteria pollutant data, the U.S. Environmental Protection Agency (USEPA) designates all areas of the U.S. as having air quality better than (attainment) or worse than (nonattainment) the NAAQS. The CAA requires each state to develop a State Implementation Plan (SIP) that is its primary mechanism for ensuring that the NAAQS are achieved and maintained within that state. According to plans outlined in the SIP, designated state and local agencies implement regulations to control sources of criteria pollutants. The CAA provides that federal actions in nonattainment and maintenance areas will not hinder future attainment with the NAAQS and must conform to the applicable SIP (i.e., Nevada SIP).

As part of the CAAA of 1977, Congress established the New Source Review (NSR) program. This program is designed to ensure that air quality is not significantly degraded from the addition of new and modified factories, industrial boilers, and power plants. In areas with unhealthy air, NSR assures that new emissions do not slow progress toward cleaner air. In areas with clean air, especially pristine areas like designated Class I areas, NSR assures that new emissions do not significantly worsen air quality.

Class I areas are defined as those areas where any appreciable degradation in air quality or associated visibility impairment is considered significant. As a part of the Prevention of Significant Deterioration (PSD) Program, Congress assigned mandatory Class I status to all national parks, national wilderness areas (excluding wilderness study areas or wild and scenic rivers), and memorial parks greater than 5,000 acres and national parks greater than 6,000 acres in existence in 1977. In Class I areas, visibility impairment is defined as atmospheric discoloration (such as from an industrial smokestack) and a reduction in regional visual range. Visibility impairment or haze results from smoke, dust, moisture, and vapor suspended in the air. Very small particles are either formed from gases (sulfates, nitrates) or are emitted directly into the atmosphere from sources like electric utilities, industrial fuel burning processes, and vehicle emissions.

Stationary sources, such as industrial areas, are typically the issue with visibility impairment in Class I areas, so the permitting process under the PSD program requires a review of all Class I areas within a 62-mile (100-kilometer [km]) radius of a proposed industrial facility. The United States Forest Service (USFS), the National Park Service (NPS), and the USFWS, hereafter referred to as the Agencies, have concluded that an approach similar to the one used in EPA's Regional Haze Regulation has merit for evaluating air pollution sources with relatively steady emissions throughout each year with respect to new source impacts at Class I areas. The new Federal Land Manager's Air Quality Related Values (AQRV) Workgroup Final Draft Phase I Report (USFS/NPS/USFWS 2008) presents new initial screening criteria that would exempt a source from AQRV impact review based on its annual emissions and distance from a Class I area.

The Agencies (i.e., USFS, NPS, and USFWS) are using an approach similar to the EPA's evaluation method in the Regional Haze Rule, but are modifying the size criteria to also include Particulate Matter less than 10 microns in size (PM_{10}) and sulfuric acid mist (H_2SO_4) emissions because those pollutants also impair visibility and contribute to other resource impacts. In addition, the Agencies are using a fixed quality/distance (Q/D) factor of 10 as a screening criteria for sources locating greater than 50 km from a Class I area. Furthermore, the Agencies are expanding the screening criteria to include all AQRV, not just visibility. Therefore, the Agencies will consider a source located greater than 50 km from a Class I area to have negligible impacts with respect to Class I AQRV if its total SO_2, Nitrogen Oxide (NOx), PM_{10}, and H_2SO_4 annual emissions (in tons per year, based on 24-hour maximum allowable emissions), divided by the distance (in km) from the Class I area (Q/D) is 10 or less. The Agencies will not request any further Class I AQRV impact analyses from such sources.

Pollutants considered in the analysis for this EA include the criteria pollutants measured by state and federal standards. These pollutants are generated by numerous sources, including diesel exhaust from construction equipment and operations such as fueling and painting. Additionally, HAPs may be present in indoor air due to off-gassing of new materials (furniture, carpet) and are present in fuel. These include VOCs and NO_x, which are precursors (indicators of) ozone (O_3), and other compounds such as CO, SO_2, and PM_{10}. Airborne emissions of $PM_{2.5}$, lead (Pb), and hydrogen sulfide (H_2S) are not addressed because the affected environment (i.e., Creech AFB) contains no significant sources of these criteria pollutants, it is not located within a nonattainment area for these pollutants ($PM_{2.5}$, Pb, and H_2S), nor are these pollutants associated with the proposed action construction activities and no-action alternative.

3.2.1 Affected Environment

The affected environment varies according to pollutant. For pollutants that do not undergo a chemical reaction after being emitted from a source (PM_{10}, CO, and SO_2), the affected area is generally restricted to a region in the immediate vicinity of the base. However, the region of concern for O_3 and its precursors (NO_x and VOCs) is a larger regional area because they undergo a chemical reaction and change as they disperse from the source. This change can take hours, so depending upon weather conditions, the pollutants could be some distance from the source. Impacts of the proposed action can be evaluated in the context of the existing local air quality, the baseline emissions for the base and region, and the relative contribution of the proposed action to regional emissions.

Base Environment

Creech AFB is located in Clark County and therefore is regulated by Clark County DAQEM regulations. Air emissions are primarily generated from maintenance shops. Creech AFB is required to obtain Authority-to-Construct and Surface Disturbance (Dust) Permits from Clark County prior to beginning construction activities.

Regional Environment

Creech AFB is located in the northwestern portion of Clark County, in southern Nevada. The Clark County DAQEM is the regulator and enforcement agency in Clark County, Nevada. A major portion of Clark County, the Las Vegas Valley hydrographic area, is designated as “serious” nonattainment for CO and PM_{10}, and attainment or meeting national standards for the remaining criteria pollutants, including NO_2, SO_2, O_3, and Pb. Creech AFB is located just outside of the serious nonattainment area of Clark County. On 15 September 2005, portions of Clark County, including the Las Vegas Valley, were designated nonattainment for O_3. In December 2006, the U.S. Court of Appeals for the District of Columbia Circuit vacated the USEPA rule classifying ozone nonattainment areas, remanding it back to USEPA for correction. USEPA has not finalized the revised rule, so the ozone nonattainment area has no formal classification at this time (DAQEM 2009).

The closest Class I Areas to the proposed action are Grand Canyon and Death Valley National Parks. The Grand Canyon is beyond the 100-kilometer distance limitation from Creech AFB for implementing additional PSD source requirements. Death Valley is 54 kilometers from Creech AFB. Mobile sources, including aircraft and their operations at Creech AFB, are generally exempt from review under this regulation. While the review under the PSD permit program does not apply directly to base operations at Creech AFB, this analysis evaluated emissions from construction activities for reviewing potential visibility impacts.

3.2.2 Environmental Consequences

The CAA prohibits federal agencies from supporting activities that do not conform to a SIP that has been approved by the USEPA. To assess the effects of the proposed action, analysis must include direct and indirect emissions from all activities that would affect the regional air quality. Emissions from proposed actions are either "presumed to conform" (based on emissions levels which are considered insignificant in the context of overall regional emissions) or must demonstrate conformity with approved SIP provisions.

Proposed Action

Air quality impacts would be significant if emissions associated with the proposed action would:
1) increase ambient air pollution concentrations above the NAAQS; 2) contribute to an existing violation of the NAAQS; 3) interfere with, or delay timely attainment of the NAAQS; 4) impair visibility within federally-mandated PSD Class I areas; or 5) result in the potential for any stationary source to be considered a major source of emissions as defined in 40 CFR 52.21 (total emissions of any pollutant subject to regulation under the CAA is greater than 250 tons per year for attainment areas).

The air quality analysis for the proposed action at Creech AFB quantifies the changes (increases and decreases) due to construction and operational activities associated with the proposed AAFES Gas Station. The approach used under air quality analysis was to evaluate construction activities (grading; filling; and building, parking, and storm water basin construction). The construction phase would extend from 2009. Once construction reaches completion, operations will commence, with resultant operational emissions associated with fuel storage and refueling activities, and commuting workers. Table 3-2 provides the estimated emissions from construction under the proposed action. The emissions associated with the proposed action include fugitive dust (PM_{10} and $PM_{2.5}$) from construction, fill, grading, and combustion (primarily CO and NO_x and smaller amounts of VOCs, SO_2, PM_{10}, and $PM_{2.5}$) from heavy-duty diesel construction equipment exhaust (e.g., trucks, dozers, cranes, and rollers).

Table 3-2. Summary of Baseline and Proposed Action Emissions at Creech AFB (tons/year)					
	CO	***VOCs***	***NO_x***	***SO_x***	***PM_{10}***[1]
Creech AFB	0.109	8.197	0.506	0.931	0.035
Projected Emissions	0.5	2.02	0.5	0.1	1.7
Baseline and Projected Total	0.609	10.22	1.006	1.031	1.735
Clark County	487,741	65,574	82,956	47,273	69,899
Creech AFB Percent Contribution	0.000	0.016	0.0012	0.0022	0.0025

Sources: 2005 Air Emissions Inventory for Creech AFB; (Air Force 2005); Clark County 1999 Emissions (EPA 2005).
Notes: $PM_{2.5}$ was regulated in 2005 and is not reflected in these inventories.

Construction

During the construction period, a one pump fuel station with two hoses, paving around pumps with proper spill protection and prevention measures as well as a 12,000 gallon UST will be installed. In general, VOC, CO, NO_x, and SO_2 emissions are primarily generated by diesel-fueled heavy equipment operating in the construction areas. Particulate matter emissions, in the form of PM_{10} and $PM_{2.5}$ are released by heavy equipment and also are due to fugitive dust created by land disturbance activities, which include land clearing; soil excavation; cutting and filling; trenching; and grading. The fugitive dust emission factor for PM_{10} (which is used as part of the $PM_{2.5}$ calculation) is assumed to include the effects of typical control measures such as routine site watering for dust control. A dust control effectiveness of 50 percent is assumed, based on the estimated control effectiveness of watering.

The calculated emissions (summarized in Table 3-2) include exhaust emissions from heavy construction equipment, fugitive dust emissions from land disturbance activities, and exhaust emissions from commuting construction worker vehicles in operation while on the base (in transit within the installation fence line). The impact of construction workers commuting to and from the installation and their homes was not evaluated based on the assumption that the construction workers are considered permanent residents of the region, and would be driving to work at another construction project if they were not driving to the installation for construction work.

The construction emission totals were compared to the baseline of the Clark County emission inventory for off-highway vehicles to assess the impact of the construction emissions to the local air quality. The off-highway vehicle baseline was chosen because most of the emissions generated by construction of the gas station will be due to the emissions of the heavy equipment. The comparison is expressed as a percentage of the baseline inventory for Clark County.

Impacts to air quality associated with construction and operational activities would be short-term and contribute imperceptible emissions (> .01 percent) to the regional air emissions, thereby not contributing any adverse or significant impacts to regional air quality. During construction, fugitive dust would be minimized through implementation of dust control measures (i.e., water application on soil). As indicated in Table 3-2, the construction emissions are insubstantial in comparison to the county baseline, with none of the pollutant emissions projected to even account for 0.016 percent (VOCs including Creech AFB

baseline emissions) of the baseline. The result of the construction emission analysis indicates very little impact on the air quality. Thus, there would be negligible change in impacts on a regional basis.

Operations

Operationally, air emissions of concern include VOCs from fueling operations associated with the gas station. Because of the installation of a fueling station, Creech AFB will have to submit and obtain an Authority to Construct permit prior to installing the 12,000 gallon UST. Additionally, Stage I and Stage II vapor recovery systems would be required to be installed on the tank. Using *Tanks 4.09D, Tank Emission Estimation Software* provided on the USEPA website and assuming 9,000 gallons per month throughput, VOCs emission would be approximately 910 pounds (0.46 tons) per year. Table 3-2 also reflects this total under VOCs.

In conclusion, construction and operation of the AAFES Gas Station would result in negligible impacts to air quality in the region if the proposed action were implemented. Construction would last less than a year and contributes predominately to the emissions associated with the proposed action. Once completed, there would be only the operational emissions associated with the project. The operational emissions would increase VOC emissions to 0.46 tons per year; therefore, there would be no substantial air quality impacts associated with implementation of the proposed action.

No-Action Alternative

Under the no-action alternative, the AAFES Gas Station would not be constructed on Creech AFB at this time. Impacts to this resource would not be expected since baseline emissions would remain unchanged; therefore, implementing the no-action alternative would not result in adverse effects to the regional air quality.

3.3 SOILS AND WATER RESOURCES

Water resources for this EA refer to surface and subsurface water, including lakes, ponds, rivers, and streams within a watershed affected by existing and potential soil erosion and runoff from the base. Subsurface water, commonly referred to as groundwater, is typically found in areas known as aquifers. Groundwater is typically recharged during precipitation events and is withdrawn for domestic, agricultural, and industrial purposes.

Wetlands are considered special category sensitive habitats and are subject to regulatory authority under Section 404 of the CWA and Executive Order 11990 *Protection of Wetlands.* They include jurisdictional and non-jurisdictional wetlands. Jurisdictional wetlands are those defined by the U.S. Army Corps of Engineers (USACE) and USEPA as those areas that meet all the criteria defined in the USACE's 1987 *Wetlands Delineation Manual* and under the jurisdiction of the USACE (USACE 1987). The CWA of

1972 is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The primary objective of the CWA is to restore and maintain the integrity of the nation's waters.

3.3.1 Affected Environment

Creech AFB sits within the Great Basin sub province and is located in the southern opening of the Indian Springs Valley. The valley is bound by the Spotted Range and Buried Hills to the west and the Pintwater Range to the east. The elevation in the vicinity of Creech AFB is approximately 3,000 feet in Indian Springs, to over 6,000 feet in the Pintwater Spotted Ranges.

Soils

Quaternary alluvial deposits with patches of Quaternary playa and marsh deposits north of Creech AFB dominate the valley areas. The local mountains (southern Pintwater Range and Spotted Range) are primarily Paleozoic limestone, dolomite, shale, and quartzite. Due to western winds, the west sides of the mountains in the area are commonly flanked by dunes on top of deep alluvial fans (Air Force 1999c). Soils in the vicinity of Creech AFB have not been mapped in detail. Soil information for the area is based on general descriptions from various resource surveys, geologic studies in adjacent areas, and general observations. Soils in the area are aridisols developed in carbonate parent material from local mountains (Air Force 1999b). Aridisols generally have poorly developed A horizons with clear B and C horizons and are sandy, loose, and prone to erosion in areas not protected by desert pavement. Soils can form anywhere that sediments accumulate; however, soils develop very slowly in desert environments and are easily disturbed. Much of the area has a surface crust known as desert pavement, which is an armored surface crust of packed angular to sub-rounded rock fragments covering the soils surface. Desert pavement is common to arid environments and acts as a shell to softer, more vulnerable soils below. Lenses of caliche (sediment cemented together with sodium salts) and clay are also known to be present at depth (USACE 2003).

Water Resources

The water resources section describes the ground and surface water resources and storm water runoff.

Groundwater

Potable water is supplied to Creech AFB from three active wells located within the Air Field boundaries (Well 62-1, Well 106-2, and Well 3). Pumped groundwater is chlorine-treated before entering the base distribution system (USAF 1998). The Air Force has authorization from the State of Nevada Engineer to pump a total of approximately 193 acre-feet per year (afy) or 62.7 million gallons per year (gpy) from these wells. Specific annual allocations for each well are presented in Table 3-3.

Table 3-3. Annual Allocations for Creech AFB Wells			
Well	***Municipal Allocation in AFY (million gpy)***	***Industrial Allocation in AFY (million gpy)***	***Total Allocation in AFY (million gpy)***
Well 62-1	68 (22.2)	18.32 (6.0)	86.35 (28.1)
Well 106-2	35.5 (11.6)	50.75 (16.5)	86.25 (28.1)
Well 3	-	20.00 (6.5)	20.00 (6.5)
Total	**103.5 (33.7)**	**89.07 (29.0)**	**192.60 (62.7)**

Source: Compiled from *Water Requirements Study of the Nellis Air Force Range (*USAF 1998). 1 AF = 3.259x105 gallons.

Groundwater in the region is high in total dissolved solids at levels of 500-1,000 mg/l and rich in calcium and magnesium bicarbonate; however, the groundwater is well within the USEPA standards for drinking water quality (NAFB 2002b). The most recent quarterly measurement for the groundwater level surface of monitoring wells installed for the Creech AFB wastewater treatment facility indicate the groundwater level in the area is about 43 feet (Creech 2009c). Groundwater flows toward the playa, northeast of the monitoring wells locations (Roe 2009).

Surface Water

Natural surface water is scarce on and around Creech AFB. The Great Basin sub province drains internally; precipitation has no surface water outlet to the Pacific Ocean. Average annual precipitation is approximately 4 inches. Surface flow is primarily towards the two local playas, located north of the airfield where it collects and evaporates. Playas are not substantial recharge zones due to low infiltration and high evaporation rates. Evaporation rates in the area are very high and have been estimated at approximately 58 to 69 inches per year (Air Force 1999b). Other than constructed ponds and structures, no permanent surface water occurs on or in the vicinity of Creech AFB. Surface water in the vicinity of Creech AFB flows through braided, ephemeral streams, which usually flow for brief periods immediately following precipitation events.

Stormwater

Most of the surrounding area drains internally, i.e., surface water runoff does not ultimately flow to the ocean. Surface flow is primarily towards the two local playas mentioned above.

3.3.2 Environmental Consequences

Impacts to soils are considered significant if any ground disturbance or other activities would violate applicable Federal or state laws and regulations and the potential for Notices of Violation (NOV) for the failure to receive applicable state permits, such as a National Pollutant Discharge Elimination System (NPDES) construction permits, prior to initiating a proposed action. Potential adverse effects to soils could result from ground disturbance leading to soil erosion, fugitive dust propagation, sedimentation, and pollutants such as hazardous materials and/or waste. The threshold level of significance for water quality is the violation of applicable federal or state laws and regulations, such as the CWA and the

potential for NOV for the failure to receive applicable federal and state permits, such as a NPDES permit (required for all projects 1 acre or more in size), prior to initiating site development activities.

Proposed Action

Soils

Slopes within the project area are slight; however, water and wind erosion could occur during construction activities. Use of best management practices would reduce these impacts. No long term impacts to site soils would be expected.

Water Resources

Water resources are surface and subsurface resources that are finite but renewable. Physical disturbances and material releases from construction activities may affect water resources. Under NEPA guidelines, any alteration or degradation of a surface water body, aquifer, groundwater table, or recharge rate resulting in measurable and persistent change in water quality is a significant impact. Violation of federal or state water quality criteria resulting from the proposed action also would be considered a significant impact.

Infiltration rates depend on factors such as soil type, soil moisture, antecedent rainfall, cover type, impervious surfaces and surface retention. Travel time is determined primarily by slope, length of flow path, depth of flow, and roughness of flow surfaces. The size of the drainage area, infiltration rates, and runoff travel time control the rate of peak discharge. The location of the proposed development, the effects of natural or manmade active or passive control works, and the time distribution of rainfall during a given storm event can reduce water infiltration rates and speed up runoff travel time. Incremental increases of impervious surface may combine to significantly alter peak events or baseline flow in a watershed. Increased recharge or improved water quality are examples of beneficial impacts.

Groundwater.

The proposed action would not be expected to significantly impact the pre-existing status of groundwater resources at Creech AFB. Excavations would be shallow and would not intersect groundwater. Short-term impacts due to leaks or spills of contaminants during construction (e.g., fuels, lubricants) could possibly impact shallow perched zones; however, they would not be expected to enter the deeper confined aquifers and can be readily mitigated through implementation of appropriate construction/maintenance best management practices. Long-term impacts due to installing an UST would be if the tank were to leak. Installation codes and requirements and subsequent inspections coupled with automatic leak detection systems minimize the likelihood of the tank to develop a leak. Groundwater depth is about 43 feet and flows in a northeasterly direction. The nearest production wells are wells 62-1, 103-2 and 3 are located southwest of the proposed action and alternatives location and the water is pumped from about 600 feet below ground surface. Gasoline is lighter than water and groundwater contaminated by gasoline

predominately floats on the surface with some dissolved product in the upper layer of the groundwater. For these reasons, the probability of the proposed action contaminating potable groundwater systems would be very remote.

Surface Water.
Short-term impacts to surface water could potentially occur during construction. These potential impacts could include increased turbidity in surface waters that are adjacent to construction activities and potential contamination due to leaks and spills of fuels and lubricants from construction equipment. Use of best management practices and engineering controls as prescribed in the required SWPPP (Air Force 2006) would minimize these impacts. An additional 0.42 acres of pavement would slightly increase runoff, but since it is less than 1 acre, a stormwater discharge permit would not be required.

No-Action Alternative

Under the no-action alternative, the AAFES Gas Station would not be constructed at this time. Existing conditions (as described under the affected environment) would remain unchanged. As a result, there would be no impacts to soils or water resources at Creech AFB if the proposed action were not implemented. No impacts to wetlands would occur with implementation of the no-action alternative.

3.4 BIOLOGICAL RESOURCES

Biological resources encompass plant and animal species and the habitats within which they occur. Plant species are often referred to as vegetation and animal species are referred to as wildlife. Habitat can be defined as the area or environment where the resources and conditions are present that cause or allow a plant or animal to live there (Hall *et al.* 1997). Biological resources for this EA include vegetation, wildlife, and special-status species occurring on Creech AFB in the vicinity of the proposed construction.

Vegetation includes all existing upland terrestrial plant communities and submerged aquatic vegetation with the exception of special-status species. The affected environment for vegetation includes those areas subject to construction disturbance. Wetlands are discussed in Section 3.3*, Soils and Water Resources*. *Wildlife* includes all vertebrate animals with the exception of those identified as threatened or endangered or sensitive. Wildlife includes fish, amphibians, reptiles, birds, and mammals.

Special-Status Species are defined as those plant and animal species listed as threatened, endangered, or proposed as such by the USFWS. The federal ESA protects federally listed, threatened, and endangered plant and animal species. Species of concern are not protected by the ESA; however, these species could become listed and protected at any time. Their consideration early in the planning process could avoid future conflicts that might otherwise occur. The discussion of special-status species focuses on those species with the potential to be affected by construction and construction-related noise.

3.4.1 Affected Environment

The affected environment includes the location proposed for the AAFES Gas Station construction. Those biological resources that may potentially be impacted by the proposed action are discussed in the following pages.

Vegetation

Creech AFB is located in the northeastern portion of the Mojave Desert. The surrounding landscape is typical of the Mojave Desert, with low lying enclosed basins surrounded by low mountains and bajadas formed of coalescing alluvial fans. On the bajadas and mountain slopes, the vegetation is typically dominated by creosote bush (*Larrea tridentaat)* where white bursage (*Ambrosia dumosa*) is commonly co-dominant. On valley bottoms and dry lake beds (playas) at lower elevations where soils are relatively fine, alkaline and clayey, saltbush (*Atriplex* sp.), shadscale (*A. confertifolia*), and allscale (*A. polycarpa*) dominate. Matchweed (*Gutierrezia sarothrae*), buckwheat (*Eriogonum* spp.), and cheesebush (*Hymenoclea salsola*) also occur in saltbush scrub (NAFB 1996). Within the fenced area of the airfield, the vegetation is very sparse due to disturbance and is dominated by non-native Russian thistle (*Salsola* sp.). Surrounding vegetation and wildlife habitat outside of the fence consists of creosote bush scrub and saltbush scrub.

Wildlife

Wildlife that typically occurs in creosote bush scrub and saltbush scrub habitats has been observed on Creech AFB, primarily outside of the fenced area. Mammals include black-tailed jackrabbits (*Lepus californicus*), desert woodrat (*Neotoma lepida*), kangaroo rats (*Dipodomys* spp.), coyote (*Canis latrans*), and desert kit fox (*Vulpes macrotis arsipus*). Several species of bats may occur in the general area, attracted by water and associated insects at the municipal sewage ponds and the springs in Indian Springs Valley (NAFB 1997). Pipistrelle (*Pipistrellus hesperus*) and California myotis (*Myotis californicus*) were documented in surveys at Indian Springs (NAFB 1997).

A diverse herpetofauna is present that includes desert iguana (*Dipsosaurus dorsalis*), zebra-tailed lizard (*Callosaurus draconoides*), side-blotched lizard (*Uta stansburiana*), horned lizards (*Phrynosoma* spp.), western whiptail (*Cnemidophorus tigris*), and the desert tortoise (*Gopherus agassizii*). Several snakes may also be present, including king snake (*Lampropeltus getulus*), rosy boa (*Lichanura trivirgata*), gopher snake (*Pituophis melanoleucus*), and Mojave rattlesnake (*Crotalus scutulatus*).
Bird species include a variety of ground-dwelling seed or insect eaters such as jays, wrens, shrikes, towhees, sparrows, Gambel's quail, sage thrasher (*Oreoscoptes montanus)* and mourning dove (*Zenaida macroura*); the omnivorous raven (*Corvus corax*); greater roadrunner (*Geococcyx californianus*), which feeds on snakes and lizards; and several species of raptors, including golden eagle (*Aquila chrysaetos*),

red-tailed hawk (*Buteo jamaicensis*), ferruginous hawk (*Buteo regalis*), and northern harrier (*Circus cyaneus*). Burrowing owls (*Athene cunicularia*) occur at the northern end of the runways at Creech AFB (NAFB 1996).

Special-Status Species

The desert tortoise and burrowing owl are the only special-status plant or animal species known, or likely, to occur in the areas subject to ground disturbance at Creech AFB. The desert tortoise was listed by the USFWS as threatened on April 2, 1990. It is the largest reptile in the arid southwestern U.S. Tortoises spend much of their lives in underground burrows that they excavate to escape the harsh summer and winter desert conditions. They usually emerge in late winter or early spring and again in the fall to feed and mate, although they may be active during summer when temperatures are moderate. Desert tortoises are herbivorous, eating a wide variety of herbaceous vegetation, especially flowers of annual plants. Historically the tortoise occupied a variety of desert communities in southeastern California, southern Nevada, western and southern Arizona, southwestern Utah, and through Sonora and northern Sinaloa, Mexico. Today it can still be found in these areas, although the populations are fragmented and declining over most of its former range (Air Force 1999b). Desert tortoise occur on land surrounding Creech AFB, but were not detected in a survey of the airfield area (NAFB 1996), and their occurrence is unlikely given the level of disturbance and activity.

Western burrowing owl is a species native to southern Nevada that adapts well to urban environments. The species prefer flat, previously disturbed areas where loose soil allows for excavation of burrows. Burrowing owls have been observed in burrows in the disturbed soil at the north end of the runway at Creech AFB (NAFB 1996). Prior to the initiation of any project construction, surveys coordinated through the Nellis AFB Natural Resources Manager would be conducted to determine the presence of burrowing owls or special status plant and wildlife species.

3.4.2 Environmental Consequences

Determination of the significance of potential impacts to biological resources is based on: 1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource: 2) the proportion of the resource that would be affected relative to its occurrence in the region; 3) the sensitivity of the resource to proposed activities; and 4) the duration of ecological ramifications. Impacts to biological resources are significant if species or habitats of concern are adversely affected over relatively large areas or disturbances cause reductions in population size or distribution of a species of concern. Analysis of potential on-base impacts focuses on whether and how ground-disturbing activities and changes in the noise environment may affect biological resources.

Proposed Action

Development at this location would have little impact to vegetation, wildlife, and special-status species. The proposed facility would be constructed on a previously developed site. Burrowing owls are not known to inhabit the proposed or alternative sites but could move in and be present prior to construction. A survey would be conducted and consultation with the base biologist would determine presence of burrowing owls and the appropriate course of action. No significant adverse impact to vegetation, wildlife, and special-status species would be expected from construction activities at the proposed site.

No-Action Alternative

Under the no-action alternative, the AAFES Gas Station on Creech AFB would not be constructed at this time. No adverse impacts to vegetation, wildlife, or special-status species are anticipated through implementation of the no-action alternative.

3.5 SOCIOECONOMICS

Socioeconomics is defined as the social and economic activities associated with the human environment, particularly population and economic activity. Economic activity typically includes employment, personal income, and industrial growth. Socioeconomics for this EA focus on the general features of the local economy that could be affected by the proposed action or no-action alternative.

3.5.1 Affected Environment

The affected environment for this analysis is Creech AFB and the community of Indian Springs, NV, located south of the base. Indian Springs is an unincorporated community with a population of 1,659 (NSBDC 2007). Employment opportunities limited primarily to the Clark County School District, Clark County branch library and highways services (ACC 2008). Two gas stations currently operate in the immediate community: Sol's Place and Indian Springs Chevron.

The Department of Defense (DoD) and Department of Energy (DoE) operations influence the local economy. Employees and visitors to The Southern Desert Correctional Center (SDCC) and Indian Springs Conservation Camp and Boot Camp, located just east of the community of Indian Springs and Creech AFB also influence the economy.

In 2005, Creech AFB had 1,550 personnel assigned to the Base, with an ongoing increase of up to 2,353 positions by 2013 (Danley, 2009). Nearly all of the increase is expected from the UAS force structure changes.

3.5.2 Environmental Consequences

Socioeconomic resources are defined as the basic attributes associated with the human environment, particularly economic activity and distribution of people. Economic activity is typically composed of employment distribution, personal income, and business growth. Socioeconomics for this EA focus on the general features of the local economy that could be affected by the proposed action or alternative. The analysis of potential impacts is based on the best available information at the time of writing.

Proposed Action

The construction activities under the proposed action would contribute minimally to the local economy through temporary construction contracts. This employment would not affect the population currently working for the DoD and the DoE.

The proposed action is intended to provide additional fuel services for new personnel under the UAS force restructure. The maximum throughput estimate for the service station once all personnel are in place under is anticipated to be approximately 9,000 gallons per month (Smith, 2009).

The potential impacts to Indian Springs businesses depend on factors that are not foreseeable, including its perceived convenience of use and relative fuel prices. The small size of the proposed single pump station and its location in the new portion of the base, away from the base entrance, may be inconvenient for some base personnel and could deter its general use. Fuel prices in Indian Springs range between $.30 and $.10 per gallon higher than in Las Vegas, where the majority of Creech AFB personnel live. When gas prices are lower, more personnel are likely to fill-up their tanks in Indian Springs rather than in Las Vegas; and when gas prices are lower, more personnel may prefer the convenience of the Indian Springs to the proposed single pump station on base.

As a result of comments to the draft EA, a poll was taken on 10 June 2009 by the 432nd Wing. Approximately 1,600 personnel are assigned to the wing, but because of deployments, leave etc., 571 responses were received. The poll asked "How often have you utilized the Indian Springs gas stations in the past three months?" Thirty-nine percent said they never used the gas station; 41 percent said 1-5 times; 13 percent used the gas station 6-10 times; and 7 percent used the gas stations over 10 times (Randolph, 2009). It is expected this trend would continue and the fact that relatively few personnel currently use the Indian Springs gas stations, a drop in business would be expected to be minimal.

The proposed action may result in a loss of fuel sales at the two gas stations in Indian Springs. Overall business, however, will increase from the influx of personnel associated with the UAS force structure changes.

No-Action Alternative

Socioeconomic resources would not be affected by implementation of the no-action alternative. Impacts to this resource would not be expected since baseline conditions would remain unchanged.

3.6 LAND MANAGEMENT AND USE

Land use generally refers to human modification of land, often for residential or economic purposes. It also refers to the use of land for preservation or protection of natural resources such as wildlife habitat, vegetation, or unique features. Human land uses include residential, commercial, industrial, agricultural, and recreation. Unique natural features are often designated as national or state parks, forests, wilderness areas, or wildlife refuges.

Attributes of land use include general land use and ownership, land management plans, and special use areas. Land ownership is a categorization of land according to the type of owner. Major land ownership categories include federal, state, American Indian, and private. Federal lands are further defined by the managing agency, which may include the USFWS, USFS, or DoD. Land uses are frequently regulated by management plans, policies, ordinances, and regulations that determine the types of activities that are allowed or that protect specially designated or environmentally sensitive uses.

3.6.1 Affected Environment

Creech AFB contains both developed and undeveloped lands. Main categories of developed land uses include airfield; industrial support areas; administrative services areas; and housing, recreation, and services areas. Undeveloped lands are commonly called open space in planning documents and may include natural or cultural resources preservation sites, safety buffers, or other similar land uses. The affected environments are the locations proposed for Area Development Plans and other projects on Creech AFB.

3.6.2 Environmental Consequences

The threshold level of significance for land management and use is the potential for the proposed action and alternatives to change the land use in such a manner as to cause incompatibility with adjacent land management and/or uses. The Creech AFB General Plan (Air Force 2002) indicates the existing land use designation for the proposed site is Open Space. Implementation of the proposed action would require a land use designation to Community Commercial.

Proposed Action

Construction of the AAFES Gas Station at the proposed site would not be inconsistent with the current land use. Changing the land use from Open Space to Community Commercial would not be expected to have an adverse impact to this resource.

No-Action Alternative

Under this alternative the AAFES Gas Station would not be constructed on Creech AFB at this time. The existing Open Space land use designation would remain unchanged with implementation of the no-action alternative.

3.7 HAZARDOUS MATERIALS AND WASTE MANAGEMENT

Hazardous materials are identified and regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); the Occupational Safety and Health Act (OSHA); and the Emergency Planning and Community Right-to-Know-Act. Resource Conservation and Recovery Act (RCRA) defines hazardous waste as any solid, liquid, contained gaseous or semisolid waste, or any combination of waste that could or do pose a substantial hazard to human health or the environment. Waste may be classified as hazardous because of its toxicity, reactivity, ignitability, or corrosiveness. In addition, certain types of waste are "listed" or identified as hazardous in Code of Federal Regulations at 40 CFR Part 261. Executive Order 12088, *Federal Compliance with Pollution Control Standards*, ensures that necessary actions are taken for the prevention, management, and abatement of environmental pollution from hazardous materials or hazardous waste due to federal activities. Other topics commonly addressed under hazardous materials and waste includes USTs and potential contaminated sites designated under the Air Force's ERP. Solid waste management refers to the disposal of materials from the demolition of existing facilities.

The majority of hazardous materials used by the Air Force and contractor personnel at Creech AFB are controlled through an Air Force pollution prevention process called HAZMART. This process provides centralized management of the procurement, handling, storage, and issuing of hazardous materials and turn-in, recovery, reuse, recycling, or disposal of hazardous materials. The HAZMART process includes review and approval by Air Force personnel to ensure users are aware of exposure and safety risks.

3.7.1 Affected Environment

Activities at Creech AFB require the use and storage of a variety of hazardous materials associated with general aviation and vehicle maintenance activities. These include, but are not limited to, batteries, anti-freeze, paint, aerosol cans, and solvents (Air Force 2003). All base

personnel, tenants and contractors are required to comply with NAFB Plan 12 for hazardous waste issues and procedures. Additionally, all activities involving hazardous materials are required to follow issues and procedures promulgated in NAFB Plan 32-7086. The 98th Range Wing contracts management of the 90-day Central Accumulation Site (CAS) at the base. The CAS accepts all types of hazardous wastes from all Creech AFB units. Creech AFB organizations operate Initial Accumulation Points (IAP) storing no more than 55 gallons of hazardous wastes or 1 quart of acutely hazardous waste prior to transfer to the CAS. Both the IAPs and CASs are subject to regular inspections, which could include operation and facility surveys, waste stream analyses, personnel review for training requirements, and documentation requirements. The Defense Reutilization and Marketing Office (DRMO) provide contracts for the removal of accumulated hazardous waste and shipment for disposal.

General AST and UST Considerations

AST and UST releases are dangerous to human health, hazardous to the environment, and extremely costly. Releases may occur as a result of having selected equipment that is not properly suited for the characteristics of the site. A good understanding of the site characteristics and equipment is imperative to an effective storage tank system. The following factors would need to be considered when assessing whether an AST or UST system would be best suited for Creech AFB:

- Soil (geology);
- Proximity to surface water and/or groundwater;
- Proximity to households and/or industrial areas; and
- Product to be stored.

In addition to a well-chosen site for the tank storage system, the choice of using AST or UST equipment is also a flexible decision, based on the requirements of AAFES at Creech AFB. However, ACCMAN32-7051, *Environmental Quality Manual,* states the ACC preference is for aboveground systems, and the installation commander is delegated the authority to approve the type of storage tank to be installed at the base and cannot be re-delegated. All units and tenants are required to comply with this policy.

ASTs are becoming much more common than USTs. Tank manufacturers are assembling three ASTs for every one UST. The increase in AST use is a result of several factors, including the following:

- Guidelines now permit their installation. Prior to the 1980's, tanks were required to be installed underground due to the fire hazard associated with storing flammable liquids.
- The AST can be easily monitored for leaks or corrosion, allowing for a quicker and more effective response.
- In most cases, the overall cost of AST systems is lower than USTs due to lower installation costs.

Although ASTs do provide an excellent design option, caution must always be used when deciding to install an AST. Many of the reasons tanks were installed underground are still valid, and need to be carefully examined. The advantages and disadvantages of ASTs and USTs are summarized in Table 3-4.

Table 3-4. Comparison of ASTs and USTs

Tank System	*Advantages*	*Disadvantages*
ASTs	• System can be visually monitored for leaks or corrosion, allowing for an effective response • Repairs are quick and less expensive • Minimal excavation required • Installation slightly less expensive	• Increased fire hazard • May require vapor recovery system • Increased risk of vandalism or accidental vehicular collision • Can be aesthetically undesirable • Takes up additional space • Tanks exposed to adverse weather conditions; additional wear may result • Tank exposed to pressure and temperature fluctuations • Annual costs are higher due to inspection and testing fees
USTs	• Do not require any surface space • Less of an aesthetic concern • Tank sheltered from adverse weather conditions • Reduced fire hazard • May not be required to control the release of volatile organic vapors	• Repairs are more difficult and expensive • Releases and corrosion can go undetected • Extensive excavation required for installation • Greater corrosion risk for steel tanks

3.7.2 Environmental Consequences

The significance of potential impacts associated with hazardous materials and wastes is based on the toxicity, transportation, storage, and disposal of these substances. Hazardous materials and hazardous waste impacts are considered significant if the storage, use, transportation, or disposal of these substances substantially increases the human health risk or environmental exposure. An increase in the quantity or toxicity of hazardous materials and/or hazardous waste handled by a facility may also signify a potentially significant impact, especially if a facility was not equipped to handle the new waste streams.

Proposed Action

Hazardous Materials and Waste

Construction of the AAFES Gas Station may require the use of hazardous materials such as paints, adhesives, and batteries by construction personnel. In accordance with the base's HAZMART procedure, copies of Material Safety Data Sheets must be provided to the base and maintained on the construction

site. Construction personnel would comply with federal, state, and local environmental laws and would employ affirmative procurement practices when economically and technically feasible. Storage and use of hazardous materials would continue to be part of the daily activities of the AAFES Gas Station. The amounts and types of hazardous wastes generated base personnel during the operation and maintenance of the gas station is not anticipated to change. Construction of the AAFES Gas Station would include the installation of one 12,000-gallon double walled, underground storage unit with the appropriate vapor recovery systems. The storage tank would be installed in accordance with state and federal regulations and would be registered with the State of Nevada after installation. No adverse environmental impacts related to hazardous materials and waste would be expected under the proposed action.

UST Fuel System

USEPA and state agencies enforce regulations governing installation and safe operation of underground petroleum storage tank facilities, as well as any remediation of petroleum contamination when it is discovered.

With any UST system, improper installation of the fuel tank system is a major cause of product releases and environmental impacts. Mishandling of tank prior to installation, poorly selected equipment or backfill material, or inadequately attached piping can all cause releases to occur. Installation of a UST would be installed by a Nevada-certified tank handler and overseen by the Southern Nevada (formerly Clark County) Health District (SNHD). Prior to installation, SNHD would require a UST installation permit submittal with fee and a 30-day design review.

The installation of a UST system for the proposed Creech AFB AAFES Gas Station would comply with federal and state requirements. Nevada has adopted 40CFR280, the Federal UST Regulations, and requires compliance with Nevada Administrative Code 459. A summary of these regulations and good UST operating practices is available on USEPA's website: See USEPA publications Musts for USTs and Operating and Maintaining Underground Storage Tank Systems. Some performance standards for USTs under the RCRA of 1976 include: Leak detection, corrosion protection (leak detection and corrosion protection apply to piping as well as tanks), spills and overfill protection. A Veeder-Root Leak Detection system (or equivalent) would also be installed on the tank and piping to assure compliance with performance standards.

The NDEP administers the UST Program for the State of Nevada. SNHD has an inter-local contract with the NDEP to inspect and verify that all owners and operators of USTs in Clark County, Nevada comply with State and Federal regulations. The entire service life of the UST would be overseen by the SNHD for compliance on a periodic basis.

The major areas of concern for SNHD are:

- Leak detection and reporting.
- Release response and corrective action.
- Inspection of UST installation, upgrading, operation, and closure.
- Protection of property values and the economical use of land

Alternative A

AST Fuel System

Unlike for USTs, there is no comprehensive federal regulatory program governing ASTs. Federal laws that regulate aboveground tanks include the CWA, the Oil Pollution Act (OPA), the CAA, and RCRA. Additionally, there are a variety of federal and state statutes and regulations, and industry codes and standards which apply to ASTs and focus primarily on containment, fire protection, and safety, rather than environmental issues, such as structural integrity, monitoring, and testing. ASTs have been regulated by states and local agencies for many years through the National Fire Protection Association (NFPA) codes and other industry standards.

For Alternative A, installation of an AST system for Creech AFB would comply with Nevada requirements, industry standards for equipment (e.g., Steel Tank Institute [STI] SP-001), as well as Air Force requirements for such systems (i.e., AFI 32-7044, Storage Tanks). Additional Air Force guidance is found in NAFB Plan 16, Aboveground Storage Tank Management Plan, February 15, 2008. Tank installation and final inspection must be overseen by a certified STI inspector stating compliance with the code standard. Tank custodians would be assigned and instructed in spill training and inspection requirements, and the tank added to the inventory found in the Creech AFB Spill Prevention, Control, and Countermeasures Plan (SPCC). AST piping valves and joints must also be included in SPCC Plans. The tank installation would also include:

- Proper spill control measures;
- Vehicular protection (bollards);,
- 1-1/2 inch diameter fuel lines connecting to the pump;
- National Electrical Code (NEC) grounding requirements (NFPA 70 electrical code);
- An Emergency Fuel Shutoff Switch (NEC);
- An interstitial leak sensor (Veeder-Root or equivalent) for double-walled tanks;
- A dispenser containment sump and leak sensor to contain below dispenser leaks; and
- Secondary containment for bulk offloading operations (commercial tanker truck).

No-Action Alternative

Under this alternative, the AAFES Gas Station would not be constructed. No changes to hazardous materials or waste management would be expected. In addition, no change to the base's ERP would occur.

CHAPTER 4

CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

CHAPTER 4
CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

4.1 CUMULATIVE EFFECTS

CEQ regulations stipulate that the cumulative effects analysis within an EA should consider the potential environmental impacts resulting from "the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR Part 1508.7). Assessing cumulative effects involves defining the scope of the other actions and their interrelationship with the proposed action and alternatives, if they overlap in space and time.

Cumulative effects are most likely to arise when a proposed action is related to other actions that occur in the same location or at a similar time. Actions geographically overlapping or close to the proposed action and alternatives would likely have more potential for a relationship than those farther away. Similarly, actions coinciding in time with the proposed action and alternatives would have a higher potential for cumulative effects.

To identify cumulative effects, three fundamental questions need to be addressed:

1. Does a relationship exist such that affected resource areas of the proposed action might interact with the affected resource areas of past, present, or reasonably foreseeable actions?
2. If one or more of the affected resource areas of the proposed action and another action could be expected to interact, would the proposed action affect or be affected by impacts of the other action?
3. If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

4.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

The scope of the cumulative effects analysis involves both the geographic extent of the effects and the time in which the effects could occur. Since the potential impacts of the proposed action include Creech AFB and its vicinity, the cumulative effects analysis includes only those actions occurring within the affected region. The time frame for cumulative effects centers on implementation of the proposed action. After the conclusion of this NEPA process, construction of the AAFES gas station would likely commence in 2009. Another factor influencing the scope of cumulative effects analysis involves identification and consideration of other actions. For the purposed of this analysis, public documents prepared by federal, state, and local government agencies were the primary sources of information for

identifying reasonable foreseeable actions. Documents used to define other actions included EAs, management plans, and land use plans.

4.2.1 Past , Present, and Future Actions

Creech AFB is an active military installation that undergoes continuous change in mission and training requirements. This process of change is consistent with the United States defense policy that the Air Force must be ready to respond to threats to American interests throughout the world. The most recent mission change at Creech AFB is ongoing with the additional beddown of MQ-1 Predator and MQ-9 Reaper aircraft.

4.2.2 Analysis of Cumulative Impacts

Analysis of the AAFES gas station proposal when considered with past, present, and/or future actions would not result in any adverse and/or significant impacts to air quality; soils and water resources; biological resources; socioeconomics; land management and use; or hazardous materials and waste management.

Air Quality. Impacts to air quality would be short-term and limited to the localized area. Prolonged construction activity, such as the Creech AFB build-up along with the construction and operation of the AAFES gas station would not cumulatively affect air quality in the region.

Soils and Water Resources. The limited scope of these cumulative actions in a finite area does not combine to create significant impacts to soil resources when considered individually or cumulatively. Potential cumulative impacts to water resources are not likely to occur with implementation of the proposed action due to stormwater discharge.

Biological Resources. No threatened or endangered species are known to occur on the base. Cumulative impacts to could occur if land that supports threatened and/or endangered species were removed or disturbed; however, the site proposed for construction does not possess these attributes. When considered cumulatively with other actions on the base, the proposed action would not create significant impacts to biological resources.

Socioeconomics. Construction activities associated with the project would temporarily generate construction and impacts and thus result in a temporary beneficial impact; however, when considered cumulatively, socioeconomic impacts associated with this proposal would be negligible. A slight loss of business is expected to the competing gas stations in Indian Springs, but with the influx of personnel at Creech AFB, the overall economic benefit to the businesses would still be greater than prior to the implementation of the Predator and UAS buildup.

Land Management and Use. The land use designation would need to be changed from Open Space to Community Commercial prior to implementation of the proposed action; however, no adverse impact to land use on the installation would be anticipated. The AAFES gas station construction would be consistent with current and proposed design standards and, therefore, no significant cumulative impacts would result.

Hazardous Materials and Waste Management. Compliance with applicable regulations protecting human health and regulating waste management of construction debris as well as implementation of best management practices during construction would reduce potential cumulative impacts to less than significant levels. Best management practices along with leak detection systems installed for the underground storage tank would minimize impacts for this action. As a result, cumulatively, there would be no significant impacts associated with the proposed action when combined with the Predator and Reaper UAS activities.

4.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires that environmental analysis include identification of any irreversible and irretrievable commitment of resources which would be involved in the proposed action should it be implemented. Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects this use could have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., extinction of a threatened or endangered species or the disturbance of a cultural resource).

For the proposed action, most resource commitments are neither irreversible nor irretrievable. Most environmental consequences are short-term and temporary, such as air emissions from construction operations. The AAFES gas station proposal would require consumption of limited amounts of materials typically associated with construction (wood, metal, asphalt, and fuel). However, the amount of these materials used is not expected to significantly decrease the availability of these resources either locally or globally. Based on the analysis in this EA, implementation of the proposed action would not result in adverse impacts to the environment or to the health and safety of persons in the affected region.

CHAPTER 5

REFERENCES CITED

CHAPTER 5
REFERENCES CITED

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CHAPTER 6

PERSONS AND AGENCIES CONTACTED

CHAPTER 6
PERSONS AND AGENCIES CONTACTED

432 WG. Creech AFB, Nevada

Anderson, Spence. 432 OSS/OSA (Airfield Manager). Creech AFB, Nevada. 2009

Danley, Melissa, Captain, USAF. 99 FSS/OLA/FSM (OL-A Flight Commander). Creech AFB, Nevada. 2009

Dwyer, Julieann. 99 CES/CEAO (NEPA, Project Manager). Nellis AFB, Nevada. 2009

Haarklau, DJ. 99 CES/CEAN (Compliance). Nellis AFB, Nevada. 2009

Haarklau, Lynn. 99 CES/CEAO (NEPA Program Manager). Nellis AFB, Nevada. 2009

Henderson, Terrance, Lieutenant, USAF. 99 ABW/CCY (Public Partnerships). Nellis AFB, Nevada. 2009

*Indian Springs Town Advisory Board. Indian Springs, Nevada. 2009

Myhrer, Keith. 99 CES/CEAN (Cultural Resources). Nellis AFB, Nevada. 2009

*Nevada State Clearinghouse. Carson City, Nevada. 2009

*Olsen, Jennifer. Southern Nevada Regional Planning Coalition. Henderson, Nevada. 2009

Ostrea, Robert. 99 CES/ CEANQ (Hazardous Material/EPCRA Program Manager). Nellis AFB, Nevada. 2009

Pulido, Waldo. 99 CES/CEANI (Restoration/RCRA Clean-up). Nellis AFB, Nevada 2009

Rodriguez, Henry. 99 CES/ CEANI (P2/Solid Waste Program Manager). Nellis AFB, Nevada. 2009

Roe, John. 99 CES/CEANQ (Water/Wastewater Quality). Nellis AFB, Nevada. 2009

Rothhaupt, DeAnna. 99 CES/CEANQ (Nellis/Creech/NTTR Air Quality Program Manager). Nellis AFB, Nevada. 2009

Smith, Gregory. AAFES (AAFES Environmental & Engineering Division). AAFES, Dallas Texas. 2009

Tang, Steven. Captain, USAF. 99 AMDS/SGPB (Bioenvironmental). Nellis AFB, Nevada. 2009

Turner, Robert. 99 CES/CEANS (Natural Resources Program Manager). Nellis AFB, Nevada. 2009

*IICEP Coordination

Intergovernmental Coordination for Environmental Planning (IICEP) Coordination

In February 2009, Nellis AFB sent IICEP letters to interested local and state governmental agencies to solicit concerns or issues regarding the proposed action denoted with an asterisk in the above list. One email response was received from the Nevada State Clearinghouse forwarding concerns from Nevada Wildlife Department. Nellis AFB returned a map to clarify the project locations. No other responses were received regarding the proposal. Copies of the IICEP coordination are included in Appendix A.

CHAPTER 7

LIST OF PREPARERS AND CONTRIBUTORS

CHAPTER 7
LIST OF PREPARERS AND CONTRIBUTORS

Jillian Bobbitt, *Biology, Administration Support*
B.S., University of California at Davis
Years of Experience: 1

James Campe, *Project Manager*
B.S., Naval Architecture and Offshore Engineering, University of California, 1986
Years of Experience: 18

Christina Cummings, *Production Coordinator*
A.A.S., Administrative Office Technology, Boise State University, 1999
Years of Experience: 8

Cathy Doan, *Infrastructure, Hazardous Materials and Waste*
B.S., English, Central Michigan University, 1980
M.A., Human Resources Development, Webster University, 1985
Years of Experience: 12

Lesley Hamilton, *Air Quality*
B.A., Chemistry, Mary Baldwin College, 1988
Years of Experience: 17

Chareé Hoffman, *QA/QC*
B.S., Biology, Christopher Newport University, 1999
Years of Experience: 8

Edie Mertz, *Graphics*
A.A. General Education, Cerro Coso College, CA, 1994
Years of Experience: 13

Kevin J. Peter, *Program Manager*
B.A., Anthropology, Pomona College, CA, 1975
M.A., Anthropology, Washington State University, 1986
Years of Experience: 25

Tamara F. Shapiro, *Socioeconomics*
B.A., English, Boise State University, 1989
M.L.A., Landscape Architecture, Cornell University, 1996
Years of Experience: 10

APPENDIX A

INTERAGENCY AND INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING CORRESPONDENCE AND PUBLIC PARTICIPATION

INTERAGENCY AND INTERGOVERNMENTALCOORDINATION FOR ENVIRONMENTAL PLANNING SCOPING LETTERS

DEPARTMENT OF THE AIR FORCE
99TH CIVIL ENGINEER SQUADRON (ACC)
NELLIS AIR FORCE BASE, NEVADA

Ms. Deborah Stockdale
99 CES/CEA
4349 Duffer Dr, Suite 1601
Nellis AFB, NV 89191-7007

Nevada State Clearinghouse
Department of Administration
209 East Musser Street, Room 200
Carson City, NV 89701-4298

Mesdames, Gentlemen

The United States Air Force is preparing a draft Environmental Assessment (EA) for the proposed action to construct a gas station at Creech AFB. The proposed gas station would provide the gasoline refilling service to the base population and retirees. The proposed gas station would consist of a one pump, two hose filling station on a concrete slab with a weather overhang, and an underground gasoline storage tank with all the proper containment measures and permits.

In addition to the proposed action, the EA will assess alternatives to the proposed action which include two other on-base locations, an aboveground storage tank, and the no-action. Under the no-action alternative the proposed gas station would not be constructed. In support of this process, we are requesting input in identifying general or specific issues or areas of concern you feel should be included in the environmental analysis.

Please forward any identified issues or concerns to Ms. Julieann Dwyer at the above address by 27 February 2009 or e-mail her at julieann.dwyer@nellis.af.mil. Thank you for your participation.

Sincerely

Deborah Stockdale

Deborah Stockdale
Chief, Asset Management

Global Power For America

DEPARTMENT OF THE AIR FORCE
99TH CIVIL ENGINEER SQUADRON (ACC)
NELLIS AIR FORCE BASE, NEVADA

Ms. Deborah Stockdale
99 CES/CEA
4349 Duffer Dr, Suite 1601
Nellis AFB, NV 89191-7007

Ms. Jennifer Olsen
Southern Nevada Regional Planning Coalition
240 Water Street, Mail Stop 115
Henderson, NV 89009

Dear Ms. Jennifer Olsen

The United States Air Force is preparing a draft Environmental Assessment (EA) for the proposed action to construct a gas station at Creech AFB. The proposed gas station would provide the gasoline refilling service to the base population and retirees. The proposed gas station would consist of a one pump, two hose filling station on a concrete slab with a weather overhang, and an underground gasoline storage tank with all the proper containment measures and permits.

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Sincerely

Deborah Stockdale

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Chief, Asset Management

Global Power For America

DEPARTMENT OF THE AIR FORCE
99TH CIVIL ENGINEER SQUADRON (ACC)
NELLIS AIR FORCE BASE, NEVADA

Ms. Deborah Stockdale
99 CES/CEA
4349 Duffer Dr, Suite 1601
Nellis AFB, NV 89191-7007

Indian Springs Town Advisory Board
P.O. Box 12
Indian Springs, NV 89018

Mesdames, Gentlemen

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Please forward any identified issues or concerns to Ms. Julieann Dwyer at the above address by 27 February 2009 or e-mail her at julieann.dwyer@nellis.af.mil. Thank you for your participation.

Sincerely

Deborah Stockdale

Deborah Stockdale
Chief, Asset Management

From: Nevada State Clearinghouse [Clearinghouse@budget.state.nv.us]
Sent: Wednesday, February 25, 2009 11:41 AM
To: Dwyer, Julieann T Civ USAF ACC 99 CES/CEAO
Subject: E2009-200 Proposed gas station at Creech AFB - US Air Force

<http://budget.state.nv.us/images/state_seal.jpg> NEVADA STATE CLEARINGHOUSE
Department of Administration, Budget and Planning Division
209 East Musser Street, Room 200, Carson City, Nevada 89701-4298
(775) 684-0213 Fax (775) 684-0260

Nellis Air Force Base

Nevada SAI # E2009-200 Supplemental Memo

Project: Proposed gas station at Creech AFB

Updated 2/25/2009
Project location map
A map of the proposed project location has been added to the PDF.

Follow the link below to access documents concerning the above-mentioned project.

E2009-200
<http://budget.state.nv.us/clearinghouse/Notice/2009/E2009-200.pdf>

Questions? Reese Tietje, (775) 684-0213 or clearinghouse@state.nv.us
<mailto:clearinghouse@budget.state.nv.us>

Distribution: Sandy Quilici, Department of Conservation & Natural Resources Gary Derks, Division of Emergency Management David Mouat, Desert Research Institute Alan Di Stefano, Economic Development Kathy Agee, Economic Development Chad Hastings, Fire Marshal Stan Marshall, State Health Division Karen Beckley, State Health Division Kirk Bausman, Hawthorne Army Depot Skip Canfield, AICP, Division of State Lands Michael J. Stewart, Legislative Counsel Bureau Clint Wertz, Lincoln County Zip Upham, NAS Fallon Ed Rybold, NAS Fallon Jerry Sandstrom, Commission on Economic Development John Walker, Nevada Division of Environmental Protection Steve Siegel, Department of Wildlife, Director's Office D. Bradford Hardenbrook, Department of Wildlife, Las Vegas Roddy Shepard, Department of Wildlife, Las Vegas Craig Stevenson, Department of Wildlife, Las Vegas Robert Martinez, Division of Water Resources Lynn Haarklau, Nellis Air Force Base Eloisa Hopper, Nellis Air Force Base Deborah Stockdale, Nellis Air Force Base Julieann Dwyer, Nellis Air Force Base Ms. Deborah MacNeill, Nellis Air Force Base Lt

Jeff Henderson, Nellis Air Force Base MSgt Carolyn Urdiales, Nellis Air Force Base James D. Morefield, Natural Heritage Program Linda Cohn, National Nuclear Security Administration Joseph C. Strolin, Agency for Nuclear Projects Steve Weaver, Division of State Parks Mark Harris, PE, Public Utilities Commission Pete Konesky, State Energy Office Hatice Gecol, State Energy Office Rebecca Palmer, State Historic Preservation Office Alisa Huckle, UNR Library Clearinghouse, zzClearinghouse Maud Naroll, zzClearinghouse-Maud

From: Brad Hardenbrook [bhrdnbrk@ndow.org]
Sent: Wednesday, February 18, 2009 12:57 PM
To: Dwyer, Julieann T Civ USAF ACC 99 CES/CEAO
Subject: Proposed Gas Station at Creech AFB: Scoping for Development of Environmental Assessment

Dear Ms. Dwyer,

I received notice of the scoping for the proposed project at Creech AFB by the Nevada State Clearinghouse. The notice included a copy of Deborah Stockton's summary letter describing the purpose of the proposed gas station. Unfortunately, identification of where the proposed site or alternative sites would occur are not detailed enough to ascertain whether construction would occur, for example, on previously developed, disturbed ground in a highly utilized area, or on relatively undisturbed desert located more distantly from existing high use and accessable areas. Could you provide some insights as to the nature of the locations under consideration? This perspective would assist the Department in better understanding the proposed gas station relative to local wildlife resources.

Thank you,

Brad

"Do you not know that when in the service, one must always choose the lesser of two weevils?" ~ CAPT. "LUCKY" JACK AUBREY

D. Bradford Hardenbrook
Supervisory Habitat Biologist
Southern Region
Nevada Department Wildlife
4747 Vegas Drive
Las Vegas, NV 89108
702/486-5127 x3600
486-5133 FAX
bhrdnbrk@ndow.org

PUBLIC NOTIFICATION, DISTRIBUTION, AND COMMENTS TO THE DRAFT ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

PUBLIC NOTIFICATION

As part of the public involvement process, AAFES has published a Notice of Availability of the Draft Environmental Assessment and Finding of No Significant Impact on 17 April, 2009 in the Las Vegas Review-Journal.

Notice of Availability
Draft Environmental Assessment
For Creech AFB AAFES Gas Station

Upon Nellis Air Force Base request, The Army Air Force Exchange Services (AAFES) has proposed a draft Environmental Assessment (EA) which analyzed the proposed action to construct a gas station at Creech AFB for the U.S. Air Force. The proposed gas station would provide gasoline refilling service to the base population and retirees. The proposed gas station would consist of a single pump filling station on a concrete slab with a weather overhang. Gasoline will be stored in an underground storage tank meeting regulations for spill containment measures. This EA has been prepared in accordance with the National Environmental Policy Act.

A copy of the Draft EA and Draft Finding of No Significant Impact are available for review and comment at the following libraries beginning April 17, 2009.

Las Vegas Library
Reference Department
833 Las Vegas Blvd North
Las Vegas, NV 89101

Indian Springs Library
715 Gretta Lane
Indian Springs, NV 89018

You may request a copy of the document from the Nellis AFB Public Affairs Office by calling (702) 652-2753 or by writing to the address below. An electronic version of the EA is available for public review at www.nellis.af.mil/library/environment.asp. Please provide any comments on the Draft EA by May 18, 2009. Comments should be forwarded to: 99 CES/CEAO (Ms. Julieann Dwyer), 4349 Duffer Dr. Suite 1601 Nellis AFB NV 89191.

DISTRUBUTION AND COMMENTS OF THE DRAFT EA AND FONSI

DISTRIBUTION LIST

Indian Springs Library
715 Gretta Lane
Indian Springs, NV 89018

Las Vegas Library
Reference Department
833 Las Vegas Blvd North
Las Vegas, NV 89101

Indian Springs Town Advisory Board
P.O. Box 12
Indian Springs, NV 89018

Mr. Mario Bermudez, Planning Manager
Clark County Department of Comprehensive Planning
P.O. Box 551744
Las Vegas, NV 89155

Commissioner Rory Reid, Chairperson
Clark County Commission
500 Grand Central Parkway
Las Vegas, NV 89106

Nevada State Clearinghouse
Department of Administration
209 East Musser Street, Room 200
Carson City, NV 89701-4298

Ms. Jennifer Olsen
Southern Nevada Regional Planning Coalition
240 Water Street, Mail Stop 115
Henderson, NV 89009

Mr. Robert Williams, State Supervisor
U.S. Fish and Wildlife Service
Nevada Ecological Field Office
1340 Financial Blvd, Suite 234
Reno, NV 89502

* Indian Springs Civic Association
P.O. Box 1
Indian Springs, NV 89018

* Mr. Lewis Wallenmeyer
Clark County Department of Air Quality and Environmental Management
P.O. Box 555210
Las Vegas, NV 89155

* Added to Final EA Distribution List

SAMPLE DISTRIBUTION LETTER

DEPARTMENT OF THE AIR FORCE
99TH CIVIL ENGINEER SQUADRON (ACC)
NELLIS AIR FORCE BASE, NEVADA

Ms. Deborah C. Stockdale
99 CES/CEA
4349 Duffer Dr, Suite 1601
Nellis AFB, NV 89191-7007

APR 08 2009

Indian Springs Town Advisory Board
P.O. Box 12
Indian Springs, NV 89018

Mesdames, Gentlemen

The Draft Environmental Assessment (EA)and Draft Finding of No Significant Impact (FONSI) for the proposal of a new Army and Air Force Exchange Service Gas Station at Creech Air Force Base (AFB), Nevada is attached for your review and comment. The proposed action would provide gasoline refilling service to Creech AFB personnel and retirees. The proposed gas station would consist of a single pump filling station on a concrete slab with a weather overhang. Gasoline would be stored in an underground storage tank meeting regulations for spill containment measures.

In this draft EA, three locations have been assessed, the preferred location and two alternative locations. In addition, a no-action alternative has been assessed in which the proposed gas station would not be constructed.

In accordance with 32 CFR 989, the Air Force *Environmental Impact Analysis Process (EIAP)*, and 40 CFR 1500-1508, the *Council on Environmental Quality* guidelines, pursuant to the *National Environmental Policy Act*, as amended, Nellis AFB requests your agency review the assessment of the proposed action. If you have any comments, please direct these to Ms. Julieann Dwyer at the following e-mail address: Julieann.dwyer@nellis.af.mil or send your letter to the address listed above. Comments should be received by May 18, 2009. Thank you for your participation.

Sincerely

Deborah Stockdale

Deborah C. Stockdale
Chief, Asset Management Flight

Attachment
Draft Environmental Assessment and FONSI

COMMENTS TO THE DRAFT EA/FONSI

Indian Springs Town Advisory Board

P. O. Box 12
Indian Springs, NV 89018-0012

May 18, 2009

99 CES/CEAO
Ms. Julieann Dwyer
4349 Duffer Drive, Suite 1601
Nellis AFB NV 89191

Dear Ms. Dwyer:

The following two pages are a summary of the comments made at the Indian Springs Town Advisory Board meeting of May 14 regarding the Draft EA for the AAFES Gas Station at Creech Air Force Base. Thank you and the others for attending the meeting, giving us an opportunity to discuss this project with you. We also appreciate your consideration in extending the deadline to submit comments to May 20.

If you have any questions please contact me at (702) 879-3376.

Sincerely,

Ann Brauer

Ann Brauer, Chair

(Transmitted by email, May 18, 2009)

At the Town Board meeting it was stated that there is a feasibility study that was conducted for the gas station at Creech AFB. The Board would like to receive this study. 1

Because the DEA, especially the socioeconomic portion, is flawed, a full EIS should be conducted. 2

The relationship between the base and community is not addressed in the DEA. It is an important factor that should be considered. 3

The USAF should attempt to negotiate a "military rate" with the Indian Springs Stations rather than build a station on base. There is also a gas station at the Snow Mountain Reservation which could be approached about a military discount. 4

East gate issues, especially safety, are not addressed. With gasoline tankers using this exit/entrance, safety issues increase. There are no deceleration/acceleration lanes on US 95; all vehicles must directly enter the flow of traffic which is traveling at 45 miles an hour, or more. 5

There are conflicting figures given in the socioeconomic section: such as a 40-cent price difference with Las Vegas, and elsewhere a 10-30 cent difference. The current difference is about 10-15 cents. Were any studies done to verify these figures, and what was the trend in gas prices when the studies were conducted? It is more meaningful to compare percent higher or lower than cost per gallon. 6

It is stated that the station is necessary to provide 24/7 availability of gasoline. One of the stations in Indian Springs is open 24/7. There is also a gas station at the Snow Mountain Reservation between Indian Springs and Las Vegas. 7

The DEA indicates "gas station attendant's shack" (pg. 2-2), but we were told there would be no attendant. It is unacceptable to have an unmanned "station" with only voluntary alarms to the fire department in case of a spill. Spills contribute to both air and water pollution. This is not addressed in the draft EA. 8

The DEA states that the station will serve military personnel, their dependents, and retirees. What study or survey was conducted to determine the number of each group that would use the station? How many of these people currently use the stations in Indian Springs, and do they purchase fuel only, or other items as well? If such a study was not conducted, it should be. 9

If personnel buy gas on base, there is no reason for them to visit the local stations where they are buying other items such as food and drink items. If there is less use of these businesses, local jobs will disappear. Sales tax revenues to the community will be reduced. 10

At the meeting it was estimated that just less than 50 percent of the personnel on base are non-military, yet they would have the ability to buy gas at the base gas station since all that is required is a credit card. There will be no military identification required, thus enabling nonmilitary personnel to buy gas at the station. This will have impacts on the community gas stations, and jobs, beyond those reported in the DEA. 11

It is stated that the station on base "may result in a loss of fuel sales at the two gas stations in Indian Springs; however, the influx of personnel associated with the UAS force structure changes would likely offset the potential losses resulting in no significant impact." This statement is not supported by evidence. What is a "significant" impact? How will the impact be offset? Where are the studies to support this? "Significant impact" is a relative term, depending on the size of the financial base being impacted. How does the amount of loss compare to the total tax revenue currently earned? Was a study conducted to determine how many military personnel use the stations in Indian Springs? If not, one should be. 12

It was stated at the meeting that base gas prices at Nellis AFB are determined by averaging the prices at the five nearest stations. How will prices be determined at Creech AFB? 13

The cost of building duplicate facilities that already exist in the adjacent community does not seem justified. It was reported at the Town Board meeting that it will take 21 years to pay back the costs. 14

If more pumps are added in the future it will further negatively impact community businesses and jobs. Because of the close proximity and the community and the base, and the close relationship they have, the USAF has a responsibility to the community and its well-being. 15

Historically, building of facilities/services on the base that are also needed in the community has meant those facilities/services do not develop in the community because the community numbers are too small. 16

There are no quantitative data presented as the basis of the conclusions drawn on socioeconomic impacts, according to statements made at the Indian Springs Town Board meeting on May 14, 2009. Only qualitative information was used. This does not realistically evaluate impacts to the local community businesses and jobs. Nor are the impacts stated in quantitative terms, but only undefined qualitative terms. 17

Indian Springs Town Advisory Board Comments and Responses to the Creech Gas Station DEA		
Comment Number	**Comment**	**Response**
1	At the Town Board meeting it was stated that there is a feasibility study that was conducted for the gas station at Creech AFB. The Board would like to receive this study.	An internal AAFES Project Planning Questionnaire was performed to evaluate the practicality of the proposed project. A Project Validation Assessment or feasibility study was not performed for this project as it is not a requirement for an AAFES project with this limited scope.
2	Because the DEA, especially the socioeconomic portion, is flawed, a full EIS should be conducted.	Socioeconomic impacts are considered under NEPA as indirect impacts (40 CFR 1508.8) and, as such, are provided as contextual information to the analysis. CEQ regulations (40CFR 1508.14) further states that "…economic or social effects are not intended by themselves to require preparation of an environmental impact statement. " All other impacts associated with the proposal are clearly less than significant, therefore an EIS is not warranted.
3	The relationship between the base and the community is not addressed in the DEA. It is an important factor that should be considered.	Command understands that the community and the installation's success are inextricably linked. As such, we are sensitive to community needs, but must balance these priorities with force protection and convenience concerns specific to the base. Years of service and support has taught AAFES that what is good for the personnel on installation is typically good for the community as a dependable infrastructure is a critical concern in times of base realignment and closure discussions.

4	The USAF should attempt to negotiate a "military rate" with the Indian Springs Stations rather than build a station on base. There is also a gas station at Snow Mountain Reservation which could be approached about a military discount.	Although a rate might be negotiated, not building an on-site gas station would not fulfill the purpose and need for the AAFES gas station.
5	East gate issues, especially safety, are not addressed. With gasoline tankers using this exit/entrance, safety issues increase. There are no deceleration/acceleration lanes on US95; all vehicles must directly enter the flow of traffic which is travelling at 45 miles per hour or more.	The addition of an occasional fuel delivery truck would not appreciably affect the safety issues at the east gate. Expected sales are about 9,000 gallons per month. With delivery trucks carrying between 5,000 gallons and 7,000 gallons, this is less than two trips per month. A separate NEPA document is currently underway to address east gate modifications. This action is a separate action and independent from the decision to construct a gas station on Creech AFB.
6	There are conflicting figures given in the socioeconomic section: such as 40-cents price difference with Las Vegas, and elsewhere a 10-30 cent difference. The current difference is about 10-15 cents. Were any studies done to verify these figures, and what was the trend in gas prices when the studies were conducted? It is more meaningful to compare percent higher or lower than cost per gallon.	During the summer of 08, observations made indicated price differences in the 40 cents per gallon range. See comment #13 for the methodology for setting prices. This will be added to the final EA. Cost comparisons were based on observations not formal studies.
7	It is stated that the station is necessary to provide 24/7 availability of gasoline. One of the stations in Indian Springs is open 24/7. There is also a gas station at the Snow Mountain reservation between Indian Springs and Las Vegas.	Part of the purpose of this action is to have a secure, on-base source for gasoline. While there are gas stations open 24/7 they do not meet the need of those on-base with security requirements for this action.
8	The DEA indicates "gas station attendant's shack" (pg 2-2), but we were told there would be no attendant. It is unacceptable to have an unmanned "station" with only voluntary alarms to the fire department in case of a spill. Spills contribute to both air and water pollution. This is not addressed in the draft EA.	Unattended gas stations are common and spills are not a common incident. In fact, the current military vehicle gas station on Creech AFB is unattended. There would be spill kits provided at the pump and placard with instructions in case of a spill. There are spill control measures in place on Creech AFB to adequately address gas spills. Fuels spills from gas

		station pumps rarely occur in sufficient quantities to have any impact to air or water resources. The gas pump design would have automatic shut-off valves at either end of the hose, a shear valve at the base of the pump and an electronic sensor under the bottom of the dispenser to shut off the gasoline pump in the event it detects gasoline. Even if all four cut-off systems were to fail and a catastrophic leak were to occur, impacts would be localized and any fuel entering into the ground-water system would not impact drinking water systems because ground water follow is towards the northeast away from all of the local wellheads. In addition, security cameras are to be implemented at this site location.
9	The DEA states that the station will serve military personnel, their dependents, and retires. What study or survey was conducted to determine the number of each group that would use the station? How many of these people currently use the stations in Indian Springs, and do they purchase fuel only, or other items as well? If such a study was not conducted, it should be.	A poll was taken on 10 June 2009 in response to this comment by the 432nd WG. Approximately 1600 personnel are assigned to the wing, but because of deployments, leave etc., 571 responses were received. The poll asked "How often have you utilized the Indian Springs gas stations in the past three months?" 39 percent said they never used the gas station; 41 percent said 1-5 times; 13 percent used the gas station 6-10 times; and 7 percent used the gas stations over 10 times. While retirees and dependents would be allowed to use the gas station, the amount gas sold to these groups would be minimal. There is no on-base family housing; therefore there are no dependents on base. Other than retires living in Indian Springs, retirees would not likely use the gas station because of its remote location and lack of other services at Creech AFB.

10	If personnel buy gas on base, there is no reason for them to visit the local stations where they are buying other items such as food and drink items. If there is less use of these businesses, local jobs will disappear. Sales tax revenues to the community will be reduced.	AAFES, as a U.S. Government instrumentality, is immune from state and local taxes unless the immunity is waived by an act of Congress. The U.S. Congress has waived this immunity with respect to motor fuel sold by AAFES (Hayden Cartwright Act, 4 U.S.C. 104). AAFES pays Federal tax as well (26 U.S.C. § 4081(a) is the US code that covers Federal Tax on gasoline). Accordingly, AAFES pays state, federal and local motor fuel taxes, as well as underground storage fees, etc. on motor fuel. The federal and state motor fuel taxes and other applicable fees paid by AAFES are included in the motor fuel price to the military customer and paid to the appropriate taxing authority.
11	At the meeting it was estimated that just less than 50 percent of the personnel on base are non-military, yet they would have the ability to buy gas at the base gas station since all that is required is a credit card. There will be no military identification required, thus enabling nonmilitary personnel to buy gas at the station. This will have impacts of the community gas station, and jobs, beyond those reported in the DEA.	The impacts analyzed in the EA are based upon gasoline throughput and not who purchases the gas. Patronage is controlled in several ways for unattended fueling. We are on a secure facility, where the general public is not admitted. Our primary control is to post clear signage that the facility is for authorized patrons only. Then on a random basis, we have an associate present to spot check identification for sales. In addition, security cameras would be implemented at this location.
12	It is stated that the station on base "may result in a loss of fuel sales at the two gas stations in Indian Springs; however, the influx of personnel associated with the UAS force structure changes would likely offset the potential losses resulting in no significant impact. "This statement is not supported by evidence. What is a "significant" impact? How will the impact be offset? Where are the studies to support this? "significant impact" is a relative term, depending on the size of the financial base being impacted. How does the amount of loss compare to the total tax	Will revise to state minimal impact. There is no CEQ requirement to state whether socioeconomic impacts are significant. The impacts will be offset by the several hundred personnel that have yet to be transferred or employed at Creech by 2013. Some of these additional personnel would purchase products from the local gas stations. The amount of loss compared to tax revenue is impossible to quantify

	revenue currently earned? Was a study conducted to determine how many personnel use the stations in Indian Springs? If not, one should be.	because records do not exist stating how much revenue generated is specifically from those military members that might use the proposed gas station.
13	It was stated at the meeting that the base gas prices at Nellis AFB are determined by averaging the prices at the five nearest stations. How will prices be determined at Creech AFB?	The AAFES gas policy requires AAFES stations in the Continental United States to survey as frequently as necessary to stay competitive, a minimum of 5 competitor locations selling motor fuel, establishing the AAFES price equal to the lowest price surveyed for each grade of fuel AAFES sells. Creech AFB, AAFES would use the Nellis AFB sell price established by the process outlined above as the benchmark. To this benchmark AAFES will add the additional freight expense, estimated to be 5 cents per gallon. Thus, the Creech AFB sell price will match the Nellis AFB sell price / plus freight (or approx. plus 5 cents per gallon).
14	The cost of building duplicate facilities that already exist in the adjacent community does not seem justified. It was reported at the Town Board meeting that it will take 21 years to pay back the costs.	While cost to build infrastructure is taken in to consideration, the needs of the installation are of primary importance to AAFES. With locations from Baghdad to Ft. Bragg, AAFES often must operate some facilities at a loss. As such, the "bottom line" isn't always the determining factor when deciding where and when to place services on a military installation. In addition, the cost to build the facility will be paid for by exchange patrons as AAFES earnings are utilized to build new stores or renovate existing facilities. Funds to build these new or replacement facilities come entirely from the sale of merchandise and services.
15	If more pumps are added in the future it will negatively impact community businesses and jobs. Because of the close proximity and the community and the base, and the close relationship they have, the USAF has the responsibility to the community and its well-being.	There are no plans to add any additional pumps than those stated in the DEA.

16	Historically, building of facilities/services on the base that are also needed in the community has meant those facilities/services do not develop in the community because the community numbers are too small.	Noted, but this is beyond the scope of this document.
17	There are no quantitative data presented as the basis of the conclusions drawn on socioeconomic impacts, according to statements made at the Indian Springs Town Board meeting on May 14, 2009. Only qualitative information is used. This does not realistically evaluate the impacts to the local community businesses and jobs. Nor are the impacts stated in quantitative terms. But only in undefined qualitative terms.	The EA states AAFES expects to sell 50,000 gallons per week from the Creech gas station (Nimmers 2009). This figure was in error, 9,000 gallons per month is the correct figure. The final EA will be modified to reflect this change. The only quantitative analysis that can be done is state that 9,000 gallons would not have been purchased elsewhere. Most will be from gas stations in the northwest part of Las Vegas valley, some from the Nellis AAFES gas station, some from other locations around Las Vegas and some from Indian Springs. It is impossible to definitively pinpoint where people would not buy gas when they are using the Creech AFB station and would be speculative at best.

Indian Springs Civic Association
Post Office Box 1
Indian Springs, Nevada 89018

20 May 2009

99 CES/CEAO
Ms. Julieann Dwyer
email: julieann.dwyer@nellis.af.mil
4349 Duffer Drive, Suite 1601
Nellis AFB, NV 89191

RE: DRAFT ENVIRONMENTAL ASSESSMENT AAFES GAS STATION at CREECH AFB

Dear Ms Dwyer,

Thank you for your presence at the Indian Springs Town Advisory Board (ISTAB) meeting on 14 May 2009, and for extending the time to comment on the DRAFT ENVIRONMENTAL ASSESSMENT AAFES GAS STATION at CREECH AFB (DEA) to 20 May 2009.

Indian Springs Civic Association (ISCA) – a community based non-governmental, non profit organization devoted to a better and sustainable community for the residents of Indian Springs – has collected the attached comments and concerns in addition to those presented at the ISTAB meeting,

Please add the following ISCA contact information to notification lists for any and all issues that may affect the community of Indian Springs, Nevada.

Indian Springs Civic Association
PO Box 1
Indian Springs, NV 89018-0001

email: ISCA.NV@gmail.com

Please feel free to contact me at 702-879-3581 (days) with any questions and or concerns.

Sincerely,

Johnie E. Lewis

Johnie E. Lewis,
President, Indian Springs Civic Association

The FONSI should be set aside in favor of the no Action alternative.

Socioeconomic concerns:

1. Neither the full short term nor long term socioeconomic impact to the community of Indian Springs has been addressed.

2. Indian Springs is a small community that is greatly affected by even small changes. The DEA does not address the magnitude of taking sales of gasoline and collateral commodities (candy, cigarettes, beverages, etc.) from the community and county.

3. The losses to the community once the government has taken over a function tend to be irreversible, especially in small communities. Indian Springs has already experienced this throughout the last 40 years of its relationship with the local air base. The businesses along US 95, mostly located on the north side of the highway, are the major commercial enterprises for Indian Springs. Any action which decreases their success or profit is detrimental to the community.

4. On page 3-9 of the DEA the figure of 50,000 gallons per year is used to figure the air pollution created. Later, on page 3-18, the figure of 50,000 gallons per month is given. This difference in the annual/monthly throughput figures makes it difficult to realistically predict the socioeconomic impacts to the community of Indian Springs, its businesses and related jobs.

5. The trucking of gasoline into the substandard East Gate from US 95, which has no acceleration or deceleration lanes, is a large safety concern. The speed limit there is 45 miles per hour, and there is no way a truck leaving the base can enter traffic in either direction at that speed, and slowing down to turn into the gate area from either direction also creates a hazard to the traffic in the area which usually is traveling above the 45 mph speed limit.

6. We understand that there will be no attendant at the proposed station, which means no potential for employment, no on-site monitoring of spills, and no enforcement of military only access to the pumps. Anyone with a credit card that is on base will be able to use the pumps, so the station is not a military benefit as portrayed in the DEA. Furthermore there is no provision for needed safety items such as air, water, windshield cleaning, etc.

7. The DEA reports varying figures for the difference between prices of gasoline in Indian Springs and Las Vegas, where the personnel are coming from. There is no compelling reason to buy fuel in Indian Springs, except diesel when its price is lower in Indian Springs, which has been frequently over the last several months. Furthermore, the study of the gas prices was done at the peak of per gallon costs rather than over a more normal period of time.

8. Reporting the price comparison in terms of cents per gallon does not give a realistic way to understand the difference in prices. A percentage greater or less than the prices in Las Vegas would give more meaning to the comparison.

In addition to the socioeconomic shortcoming of the DEA, there appears to be no compelling justification for the proposed station:

1. There is no military housing here. Most of the personnel, both civilian and military, live in Las Vegas where fuel prices are lower. People usually choose to purchase gas where it is cheaper, and certainly before embarking on a 40-mile (one way) or more commute to work. Also, military representatives have stressed to the community on repeated occasions that there is no guarantee of permanence to Creech AFB, or its current mission. With a 21 year pay back for costs of putting in the station, it appears to be unjustified. Someone, somewhere will have to be subsidizing the station. 9

2. No alternatives were explored, such as securing a military discounts at the stations in Indian Springs, as well as the intermediate station at the Snow Mountain Piute Reservation station. Nor was there any mention of carpooling or busing to relieve the costs of the commute. 10

Should the project be carried forward, we request a full EIS be conducted, at least with respect to socioeconomic issues. 11

Indian Springs Civic Association Comments and Responses to the Creech Gas Station DEA		
Comment Number	**Comment**	**Response**
1	Neither the full short term nor long term socioeconomic impact to the community of Indian Springs has been addressed.	Socioeconomic impacts are considered under NEPA as indirect impacts (40 CFR 1508.8) and, as such, are provided as contextual information to the analysis. CEQ regulations (40CFR 1508.14) further states that "…economic or social effects are not intended by themselves to require preparation of an environmental impact statement. "All other impacts associated with the proposal are clearly less than significant; therefore an EIS is not warranted.
2	Indian Springs is a small community that is greatly affected by even small changes. The DEA does not address the magnitude of taking sales of gasoline and collateral commodities (candy, cigarettes, beverages, etc.) from the community and county.	The magnitude of the change in business is not exactly known, the EA estimates the amount of business loss will be minimal. The base population has nearly tripled in the past few years and some of the new personnel shop at the local businesses. The addition of a single two hose gas pump is not expected to drop local revenues to pre-buildup levels.
3	The losses to the community once the government has taken over a function tend to be irreversible, especially in small communities. Indian Springs has already experienced this throughout the last 40 years of its relationship with the local air base. The businesses along US 95, mostly located on the north side of the highway, are the major commercial enterprises for Indian Springs. Any action which decreases their success or profit is detrimental to the community.	Command understands that the community and the installation's success are inextricably linked. As such, we are sensitive to community needs, but must balance these priorities with force protection and convenience concerns specific to the base. Years of service and support has taught AAFES that what's good for the personnel on installation is typically good for the community as a dependable infrastructure is a critical concern in times of base realignment and closure discussions.
4	On page 3-9 of the DEA the figure of 50,000 gallons per year is used to figure the air pollution created. Later, on page 3-18, the figure of 50,000 gallons per	The 50,000 gallons per <u>month</u> mentioned in the DEA was incorrect. The original estimates indicate the

	month is given. This difference in the annual monthly throughput figures makes it difficult to realistically predict the socioeconomic impacts to the community of Indian Springs, its businesses and related jobs.	amount would be closer to 9,000 gallons per month. The EA will be revised accordingly.
5	The trucking of gasoline into the substandard East Gate from US 95, which has no acceleration or deceleration lanes, is a large safety concern. The speed limit there is 45 miles per hour, and there is no way a truck leaving the base can enter traffic in either direction at that speed, and slowing down to turn into the gate area from either direction also creates a hazard to the traffic in the area which usually is traveling above the 45 mph speed limit.	The addition of an occasional fuel delivery truck would not appreciably affect the safety issues at the East Gate. Expected sales are about 9,000 gallons per month. With delivery trucks carrying between 5,000 gallons and 7,000 gallons, this is less than two trips per month. A separate NEPA document is currently underway to address East Gate modifications. This action is a separate action and independent from the decision to construct a gas station on Creech AFB.
6	We understand that there will be no attendant at the proposed station, which means no potential for employment, no on-site monitoring of spills, and no enforcement of military only access to the pumps. Anyone with a credit card that is on base will be able to use the pumps, so the station is not a military benefit as portrayed in the DEA. Furthermore there is no provision for needed safety items such as air, water, windshield cleaning, etc.	Unattended gas stations are common and spills are not a common incident. In fact, the current military vehicle gas station on Creech AFB is unattended. There will be spill kits provided at the pump and placard with instructions in case of a spill. There are spill control measures in place on Creech AFB to adequately address gas spills. Fuels spills from gas station pumps rarely occur in sufficient quantities to have any impact to air or water resources. The gas pump design would have automatic shut-off valves at either end of the hose, a shear valve at the base of the pump and an electronic sensor under the bottom of the dispenser to shut off the gasoline pump in the event it detects gasoline. Even if all four cut-off systems were to fail and a catastrophic leak were to occur, impacts would be localized and any fuel entering in the ground-water system would not impact drinking water systems because ground water flow is towards the northeast away from all of the local wellheads..
7	The DEA reports varying figures for the difference between prices of gasoline in Indian Springs and Las Vegas, where the personnel are coming from. There	The AAFES gas station will be unleaded only.

	is no compelling reason to buy fuel in Indian Springs, except diesel when its price is lower in Indian Springs, which has been frequently over the last several months. Furthermore, the study of the gas prices was done at the peak of per gallon costs rather than over a more normal period of time.	
8	Reporting the price comparison in terms of cents per gallon does not give a realistic way to understand the difference in prices. A percentage greater or less than the prices in Las Vegas would give more meaning to the comparison.	The price difference is acquired by observation at various times. The most glaring was in the summer of 2008 when the gas price was nearly 50 cents a gallon higher in Indian Springs.
9	There is no military housing here. Most of the personnel, both civilian and military, live in Las Vegas where fuel prices are lower. People usually choose to purchase gas where it is cheaper, and certainly before embarking on a 40-mile (one way) or more commute to work. Also, military representatives have stressed to the community on repeated occasions that there is no guarantee of permanence to Creech AFB, or its current mission. With a 21 year pay back for costs of putting in the station, it appears to be unjustified. Someone, somewhere will have to be subsidizing the station.	While cost to build infrastructure is taken in to consideration, the needs of the installation are of primary importance to AAFES. With locations from Baghdad to Ft. Bragg, AAFES often must operate some facilities at a loss. As such, the "bottom line" isn't always the determining factor when deciding where and when to place services on a military installation. Furthermore, the cost to build the facility will be paid for by exchange patrons as AAFES earnings are used to build new stores or renovate existing facilities. Funds to build these new or replacement facilities come entirely from the sale of merchandise and services.
10	No alternatives were explored, such as securing military discounts at the stations in Indian Springs, as well as the intermediate station at the Snow Mountain Piute (sic) Reservation station. Nor was there any mention of carpooling or busing to relieve the costs of the commute.	The objective of the action is to provide an on-base alternative which is secure and more convenient for the military members who are required to work long shifts and have to be at work every day. Relying on outside sources for gasoline would not meet the purpose and need for this action. A sizable percentage already arrives at Creech by bus or carpool. The purpose of this action is not solely based on gas prices.
11	Should the project be carried forward, we request a full EIS be conducted, at least with respect to socioeconomic issues.	See response to comment #1.

DAQEM

DEPARTMENT OF AIR QUALITY & ENVIRONMENTAL MANAGEMENT

500 S Grand Central Parkway 1st Floor · Box 555210 · Las Vegas, NV 89155-5210
(702) 455-5942 · Fax (702) 383-9994
Lewis Wallenmeyer Director · Alan Pinkerton Assistant Director · Tina Gingras Assistant Director

May 15, 2009

99 ABW/PA
4430 Grissom Ave
Nellis AFB, NV 89191
ATTN: Michael Estrada

RE: Environmental Assessment of Army & Air Force Exchange Service Gas Station at Creech Air Force Base

Dear Mr. Estrada,

The Clark County Department of Air Quality and Environmental Management has reviewed the subject Environmental Assessment (EA). We understand that the Army and Air Force Exchange Service (AAFES) proposes to build a gas station at Creech Air Force Base consisting of a single pump filling station on a concrete slab with a weather overhang and an underground storage tank.

We suggest the AAFES obtains a dust control permit before beginning any construction on a site that may impact an area equal to or greater than 0.25 acre. Also, air quality regulations require a stationary source permit be obtained before construction of any unit at a source that emits a regulated pollutant into the ambient air. We also require that the AAFES adheres to all provisions of all applicable dust control and stationary source permits. General

The Air Program offers the following further comments to correct statements in the EA:

1. On page 3-7, lines 22-25 the EA describes the Las Vegas Valley as an attainment area for ozone (O_3). However, on September 15, 2004, portions of Clark County, including the Las Vegas Valley, were designated nonattainment for O_3. In December 2006, the U.S. Court of Appeals for the District of Columbia Circuit vacated the U.S. Environmental Protection Agency (EPA) rule classifying ozone nonattainment areas, remanding it back to EPA for correction. EPA has not finalized the revised rule, so the ozone nonattainment area has no formal classification at this time.

2. Two different throughputs are listed for the gas station. In the "Air Quality" section (page 3-9, line 33), the throughput is given as 50,000 gallons per year. However, in the "Socioeconomics" section (page 3-18, line 3), the throughput is given as 50,000 gallons per month. If the throughput is actually 50,000 gallons per month, the projected emissions in Table 3-2 would increase twelvefold (although the station would still be a minor source).

A CENTURY OF SERVICE

BOARD OF COUNTY COMMISSIONERS
Rory Reid Chairman · Susan Brager Vice-Chairman
Larry Brown, Tom Collins, Chris Giunchigliani, Steve Sisolak, Lawrence Weekly
Virginia Valentine, PE, County Manager

We appreciate the opportunity to review the proposed project. If you have any questions about these comments, please contact me at 702-455-1600.

Sincerely,

L. Wallenmeyer

Lewis Wallenmeyer
Director

Clark County DAQEM Comments and Responses to the Creech Gas Station DEA		
Comment Number	**Comment**	**Response**
General	We suggest the AAFES obtains a dust control permit before beginning any construction on a site that may impact an area equal to or greater than 0.25 acre. Also, air quality regulations require a stationary source permit be obtained before construction of any unit at a source that emits a regulated pollutant into the ambient air. We also require that the AAFES adheres to all provisions of all applicable dust control and stationary source permits.	All applicable permits would be obtained prior to construction and adhered to during construction and operation of the gas station.
1	On page 3-7, lines 22-25 the EA describes the Las Vegas Valley as an attainment area for ozone (O3). However, on September 15, 2004, portions of Clark County, including the Las Vegas Valley, were designated nonattainment for (O3). In December 2006, the U.S. Court of Appeals for the District of Columbia Circuit vacated the U.S. Environmental Protection Agency (EPA) rule classifying ozone nonattainment areas, remanding it back to EPA for correction. EPA has not finalized the revised rule, so the ozone nonattainment area has no formal classification al this time.	Paragraph 3.2.1 has been revised to reflect this comment.
2	Two different throughputs are listed for the gas station. In the "Air Quality" section (page 3-9, line 33), the throughput is given as 50,000 gallons per year. However, in the "Socioeconomics" section (page 3-18, line 3), the throughput is given as 50,000 gallons per month. If the throughput is actually 50,000 gallons per month, the projected emissions in Table 3-2 would increase twelvefold (although the station would still be a minor source).	The 50,000 gallons per year (and per month) figure was in error, 9,000 gallons per month is the correct throughput amount. The final EA will be modified to reflect this change.

APPENDIX B

AIR QUALITY ANALYSIS

APPENDIX B
AIR QUALITY ANALYSIS

As described in section 3.2, air quality in a given location is described by the concentration of various pollutants in the atmosphere. The significance of the pollutant concentration is determined by comparing it to the federal and state ambient air quality standards. These standards (Table B-1) represent the maximum allowable atmospheric concentrations that may occur while ensuring protection of public health and welfare, with a reasonable margin of safety.

The air quality analysis in this EA examined impacts from air emissions associated with the proposed action. As part of the analysis, emissions generated from construction equipment, motor vehicles, and other area (nonmobile) sources were examined for carbon monoxide (CO), nitrogen oxides (NO_X), sulfur dioxide (SO_X), ozone (in the form of volatile organic compounds VOCs), and particulate matter (PM_{10} and $PM_{2.5}$).

LIQUID STORAGE TANKS

Air quality impacts associated with liquid fuels storage is associated with the release of VOCs from venting systems installed on the tank. There systems are required to release excess pressure in the tanks as the liquid in the tank volatizes. Physical setting factors required to calculate the amount of emissions include the size and type of tank, and the geographic area where the tank is located. Physical property of the liquid stored in the tank requirements includes the vapor density, expansion factors, saturation factors, molecular weight, and the temperature. The US EPA has developed a computer program used for calculating the VOC emissions call *Tanks Emissions Estimation Software, Version 4.09D, 5 Oct 2006.*

CONSTRUCTION

Air quality impacts from proposed construction activities were estimated from (1) combustion emissions due to the use of fossil fuel-powered equipment; (2) fugitive dust emissions (PM_{10} and $PM_{2.5}$) during demolition activities, earth-moving activities, and the operation of equipment on bare soil; and (3) VOC emissions from application of asphalt materials during paving operations.

Factors needed to derive the construction source emission rates were obtained from *Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling* (USEPA 2004a); *Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling—Compression-Ignition* (USEPA 2004b); *Nonroad Engine and Vehicle Emission Study—Report* (USEPA 1991); *Exhaust Emission Factors for Nonroad Engine Modeling—Spark-Ignition* (USEPA 2004c); *Conversion Factors for Hydrocarbon Emission Components* (USEPA 2004d); *Comparison of Asphalt Paving Emission Factors* (CARB 2005); *WRAP Fugitive Dust Handbook* (WRAP 2004); *Analysis of the Fine Fraction of Particulate Matter in Fugitive Dust* (MRI 2005) and *Mobile 6.2.03* (EPA 2003).

The analysis assumed that all construction equipment was manufactured before 2000. This approach is based on the well-known longevity of diesel engines, although use of 100% Tier 0 equipment may be somewhat conservative. The analysis also inherently reduced PM_{10} fugitive dust emissions from earth-moving activities by 50 percent as this control level is included in the emission factor itself.

Off-Road Equipment Emissions. The NONROAD model (EPA 2005) is the EPA standard method for preparing emission inventories for mobile sources that are not classified as being related to on-road traffic, railroads, air traffic, or water-going vessels. As such, it is the starting place for quantifying emissions from construction-related equipment. The NONROAD model uses the following general equation to estimate emissions separately for CO, NOx, PM (essentially all of which is PM2.5 from construction sources), and total hydrocarbons (THC), nearly all of which are nonmethane hydrocarbons:
EMS = EF * HP * LF * Act * DF

Where:
EMS = estimated emissions
EF = emissions factor in grams per horsepower hours
HP = peak horsepower
LF = load factor (assumed percentage of peak horsepower)
Act = activity in hours of operation per period of operation
DF = deterioration factor

The emissions factor is specific to the equipment type, engine size, and technology type. The technology type for diesel equipment can be "base" (before 1988), "tier 0" (1988 to 1999), or "tier 1" (2000 to 2005). Tier 2 emissions factors could be applied to equipment that satisfies 2006 national standards (or slightly earlier California standards). The technology type for two-stroke gasoline equipment can be "base" (before 1997), "phase 1" (1997 to 2001), or "phase 2" (2002 to 2007). Equipment for phases 1 and 2 can have catalytic converters. For this study, all diesel equipment was assumed to be either tier 0 or tier 1 and all two-stroke diesel equipment was assumed to be phase 1 without catalytic converters.

The load factor is specific to the equipment type in the NONROAD model regardless of engine size or technology type, and it represents the average fraction of peak horsepower at which the engine is assumed to operate. NONROAD model default values were used in all cases. Because Tier 0 equipment was conservatively used throughout the analysis period (2009 to 2010), deterioration factors were not used to estimate increased emissions due to engine age. Based on the methodology described, it is possible to make a conservative estimate of emissions from off-road equipment if the types of equipment and durations of use are known.

Fugitive Dust. Emission rates for fugitive dust were estimated using guidelines outlined in the Western Regional Air Partnership (WRAP) fugitive dust handbook (WRAP 2004). The WRAP handbook offers several options for selecting factors for PM_{10} (coarse PM) depending on what information is known. After PM_{10} is estimated, the fraction of fugitive dust emitted as $PM_{2.5}$ is estimated, the most recent WRAP study (MRI 2005) recommends the use of a fractional factor of 0.10 to estimate the $PM_{2.5}$ portion of the PM_{10}. For site preparation activities, the emission factor was obtained from Table 3-2 of the WRAP Fugitive Dust Handbook. The areas of disturbance and approximate durations were used in conjunction with the large scale of land-disturbing activities occurring, resulting in the selection of the first factor with worst-case conditions for use in the analysis.

PM_{10}, $PM_{2.5}$, and Mobile Sources. Diesel exhaust is a primary, well-documented source of $PM_{2.5}$ emissions. The vast majority of PM emissions in diesel exhaust is $PM_{2.5}$. Therefore, all calculated PM is assumed to be $PM_{2.5}$. A corollary result of this is that the PM_{10} fraction of diesel exhaust is estimated very conservatively as only a small fraction of PM_{10} is present in the exhaust. However, ratios of PM_{10} to $PM_{2.5}$ in diesel exhaust are not yet published and therefore for the purposes of the EA calculations, all PM emissions are equally distributed as PM_{10} and $PM_{2.5}$.

VOC Emissions from Paving. VOC emissions from the application of hot mix asphalt were calculated throughout the construction period of 2009 to 2010. The estimates used asphalt volumes as provided in the Form 1391 (U.S. Air Force 2008), and used the published CARB hot mix asphalt emission factor.

Construction Workers – Mobile Sources. Mobile source emissions were calculated for construction workers for each of the construction years. For the construction workers, these emissions assumed that each worker drove their own car, and that the average mileage driven each workday within the AFB fenceline was 6 miles (to include driving during lunch break). Emission factors for construction workers were derived from the USEPA Mobile 6 mobile emissions model for each of the years 2009 - 2010.

REFERENCES

California Air Resources Board (CARB). 2005. Comparison of Asphalt Paving Emission Factors.

Midwest Research Institute (MRI). 2005. MRI Project No. 110397. Analysis of the Fine Fraction of Particulate Matter in Fugitive Dust, conducted for the Western Governors Association Western Regional Air Partnership (WRAP). October.

U.S. Environmental Protection Agency (USEPA). 2006. Tanks Emission Estimation Software, Version 4.09D downloaded from the USEPA website at http://www.epa.gov/ttn/chief/software/tanks/index.html

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