

# **EXPANSION OF RV STORAGE LOT**

**PROJECT 10-0199**

## **ENVIRONMENTAL ASSESSMENT**

**FAIRCHILD AIR FORCE BASE,  
WASHINGTON**

**JULY 2011**

| Report Documentation Page                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                    |                                     |                                                                  | Form Approved<br>OMB No. 0704-0188                  |                                    |
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## ACRONYMS AND ABBREVIATIONS

|                   |                                                                     |       |                                                      |
|-------------------|---------------------------------------------------------------------|-------|------------------------------------------------------|
| AAFES             | Army and Air Force Exchange Service                                 | MSA   | Munitions storage area                               |
| ACM               | Asbestos-containing materials                                       | MTCA  | Washington State Model Toxics Control Act            |
| AICUZ             | Air Installation Compatible Use Zone                                | NAAQS | National Ambient Air Quality Standards               |
| AFB               | Air Force Base                                                      | NEPA  | National Environmental Policy Act                    |
| AFI               | Air Force Instruction                                               | NRHP  | National Historic Preservation Act                   |
| AFRC              | Armed Forces Reserve Center                                         | NOx   | Nitrogen Oxides                                      |
| ALS               | Airmen Leadership School                                            | NPDES | National Pollutant Discharge Elimination System      |
| AMC               | Air Mobility Command                                                | NPL   | National Priorities List                             |
| ARW               | Air Refueling Wing                                                  | O3    | Ozone                                                |
| AT/FP             | Anti-Terrorism/Force Protection                                     | PAH   | Polynuclear Aromatic Hydrocarbons                    |
| BRAC              | Base Realignment and Closure                                        | PCB   | Polychlorinated biphenyls                            |
| BX                | Base Exchange                                                       | PM10  | Particulate Matter less than 10 microns in diameter  |
| CAA               | Clean Air Act                                                       | PM2.5 | Particulate Matter less than 2.5 microns in diameter |
| CERCLA            | Comprehensive Environmental Response Compensation and Liability Act | POL   | Petroleum, Oil & Lubricants                          |
| CFR               | Code of Federal Regulations                                         | PPA   | Pollution Prevention Act                             |
| CO                | Carbon Monoxide                                                     | RCRA  | Resource Conservation and Recovery Act               |
| dB                | decibel                                                             | ROI   | Region of Influence                                  |
| DOD               | Department of Defense                                               | RV    | Recreational Vehicle                                 |
| DLADS             | Defense Logistics Agency Disposition Services                       | S3O   | Security Forces Operations                           |
| EA                | Environmental Assessment                                            | SERE  | Survival, Evasion, Resistance and Escape             |
| EIAP              | Environmental Impact Analysis Process                               | SO2   | Sulfur dioxide                                       |
| EIS               | Environmental Impact Statement                                      | SRCAA | Spokane Regional Clean Air Agency                    |
| EO                | Executive Order                                                     | SWPPP | Storm Water Pollution Prevention Plan                |
| EOD               | Explosive Ordinance Disposal                                        | TCE   | Trichloroethylene                                    |
| ERP               | Environmental Restoration Program                                   | TCLP  | Toxicity characteristic leaching procedure           |
| EPA               | U.S. Environmental Protection Agency                                | TEC   | Toxicity equivalent concentration                    |
| FAFB              | Fairchild Air Force Base                                            | TPH   | Total petroleum hydrocarbons                         |
| FONSI             | Finding of No Significant Impact                                    | TSD   | Treatment, Storage and Disposal                      |
| H <sub>2</sub> S  | Hydrogen sulfide                                                    | USAF  | United States Air Force                              |
| HQ                | Headquarters                                                        | UST   | Underground storage tank                             |
| MATOC             | Multiple Award Task Order Contract                                  |       |                                                      |
| mg/m <sup>3</sup> | Milligrams per cubic meter                                          |       |                                                      |

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## EXECUTIVE SUMMARY

This Environmental Assessment (EA) describes the potential environmental consequences resulting from a proposal to construct a parking lot for Recreational Vehicle (RV) storage at Fairchild Air Force Base (AFB), Washington.

## ENVIRONMENTAL IMPACT ANALYSIS PROCESS

This EA has been prepared by the United States Air Force (Air Force) in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, (42 United States Code [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] §§ 1500-1508), and 32 CFR Part 989, *et seq.*, *Environmental Impact Analysis Process* (formerly known as Air Force Instruction [AFI] 32-7061).

## PURPOSE AND NEED FOR ACTION

The purpose of this action is to provide more parking to the “RV Storage Lot”, run by Recreational Services. This service provides nearby parking of RVs for Airmen at Fairchild AFB at a lower rate than in the local area. It typically has a waiting list of approximately 35 slots. The RV Storage Lot is located on the Northwest side of Fairchild AFB behind the Petroleum, Oil & Lubricants (POL) storage on POL Loop. There is space surrounding the lot that is unused and in an out-of-the-way location. The addition of another parking lot in this area would provide space for the RVs on the waiting list and provide this service with additional revenue.

## PROPOSED ACTION AND ALTERNATIVES

Recreation Services proposes to construct a 9460 square yard parking lot adjacent to the existing RV Parking Lot, with two entrances from the existing lot. This lot will accommodate 70 more 40-foot slips for RVs. It will be located on the southwest side of the existing lot. The proposed lot will be asphalt with lighting along one side and a perimeter fence set up for security.

A second alternative is to secure an existing parking lot that is not being used as the overflow for the RV Storage Lot. This option will not require the addition of more pavements to Fairchild AFB and will be more cost effective. However, it will split the location of the RV Storage Lot, it will not provide as much space or revenue and it may be located in a visible place, causing an eyesore on the base.

The final alternative, the no action alternative, will not add any additional parking lots to the RV Storage Lot. In this alternative some procedures could be implemented to improve the operations of the RV Storage Lot, including re-stripping the lot for the most efficient use of space, tailoring the size and number of the slips to the customers’ use.

## SUMMARY OF ENVIRONMENTAL CONSEQUENCES

This EA provides an analysis of the potential environmental consequences of the proposed actions on behalf of the RV Storage Lot. Eleven resource categories received thorough evaluation to identify potential environmental consequences. As indicated in Chapter 4.0, some of the alternatives will have minor impacts to some of the resource areas.

### Alternative 1: New Construction

*Air Quality:* Project-related air emissions would be generated on Base and would be below the 100 tons per year *de minimis* and 10 percent region federal conformity thresholds set forth in 40 CFR 51 Subpart W. The emissions from fugitive dust (particulate matter less than or equal to 10 microns in diameter [PM<sub>10</sub>] and particulate matter less than or equal to 2.5 microns in diameter [PM<sub>2.5</sub>]) would be significantly less due to the implementation of control measures in accordance with standard practices.

No direct operational emissions are expected to occur after the proposed project is completed, as the facilities would no longer exist. No new stationary sources or additional personnel would be added to the Base as a result of the proposed project. No changes to the Base's Synthetic Minor Operating permit are anticipated.

*Noise:* Construction of facilities would have temporary, localized noise effects. These localized noise increases may disrupt Base personnel working in the few nearby structures. Because the noise disruptions would be temporary and would be limited to daytime hours, impacts are considered insignificant.

*Water Resources:* The construction of a new impervious surface will contribute to sheet runoff in the ROI. High infiltration rates in the area soil as well as a nearby drainage ditch will be enough to support the additional runoff. During wet seasons, ponding may occur locally in a nearby low-lying area that is unused. There are no wetlands in or near the project area. Thus, the proposed alternative will not significantly affect water quality or water availability.

*Geologic Resources:* There are no identified geologic resources of significant value within the project area. The improvement of unimproved land will create geologic disturbance, but there is a much larger area of undisturbed, similar land surrounding the project area. No significant impacts are expected under this alternative.

*Biological Resources:* Demolition activities would have no significant adverse effects to individual species or native plants or animals since the only plant or animal species likely to be displaced from this marginal habitat are individuals of common and locally abundant species. No impacts are anticipated to wetland habitats as there are none nearby. No threatened, endangered, or special species/communities are known to occur or use the project area so there will be no adverse impact. Incidentally occurring listed, proposed, or candidate species are not likely to be adversely affected because no critical habitat exists in or near the project area.

*Cultural Resources:* Construction activities are not expected to impact archaeological or traditional resources under the Proposed Action. Cultural resource inventories consultation with State Historic Preservation Office (SHPO) has determined that there are no historical, cultural, or traditional resources of significance in or around the project area. No significant adverse consequences to cultural resources are expected.

*Infrastructure and Utilities:* The infrastructure in and surrounding the project area is limited. A fuel line exists below a small portion of the proposed parking lot surface, and contractors would be notified of its existence and location so as not to disturb it. A gravel road runs through the project area as part of an access loop to the industrial area. The removal of a portion of this loop would not limit access to any area, and all involved parties have authorized this action. The addition of 9460 square yards of pavement will hinder the Air Force initiative to cut the Facility footprint by 20% by 2020. However, many other pavements on Fairchild AFB are identified for possible demolition. Thus, no significant impacts to utilities and infrastructure are expected.

*Land Use Resources:* The land use of the new RV Storage lot would be Community-Commercial. This is consistent with the planned land use of the base. Thus, no negative impacts would occur.

*Safety and Occupational Health:* Construction activities would result in a short-term increase in the ground safety risks, however no significant adverse impacts are anticipated with the application of standard industrial safety standards.

*Hazardous Materials and Waste Management:* Hazardous Materials would be used in the construction of a new parking lot, and may include paint, paint thinners, gasoline, diesel, oil and lubricants. Contractors will be responsible for the maintenance and prevention of spills as well as their clean-up. No more Hazardous Material than what is needed for each day will be allowed at the job site. No appreciable amount of Hazardous Waste is expected to be generated or found during construction. No significant adverse environmental consequences are expected.

*Environmental Justice:* Under environmental justice there would be no significant impacts expected from the Proposed Action because no adverse impacts have been identified and civilian populations are not in proximity to the proposed construction site.

### **Alternative 2: Existing Lot Use**

Environmental effects from the Existing lot Use Alternative would be the same or less than those of the New Construction Alternative, with the exception of Land Use Resources. The proposed existing lot locations lie in Land Use areas identified for other purposes. The Football Field Parking Lot lies in a Recreational Services/Administrative mixed land use, and the South Side Parking Lot lies in and Industrial land use area. Either proposed parking lot would cause a significant impact to base land use planning.

### **Alternative 3: No Action**

Under the No Action alternative, construction of 9460 square yards of impervious asphalt surface would not take place and no net change will occur. No significant environmental consequences or beneficial effects will occur.

### **Cumulative Effects and Irreversible Commitment of Resources:**

Other activities on the Installation expected to overlap with the Proposed Alternatives have no significant adverse impacts to resources. The combined influence on resources would not have a significant adverse impact. Overlapping activities within the Installation combined with the Proposed Alternatives include the construction of a new Wing Headquarters (HQ) building which will lie almost a mile from the project area, as well as repair to the roof and parking lots of the Army and Air Force Exchanges Service (AAFES) Base Exchange (BX) nearby the project area. Air quality and water resources are those with potential impact. The level of activity combined would not reach air quality thresholds, and the concurrent projects have no impact or slightly improve quality and quantity of water resources due to decrease of impervious surface. No substantial cumulative impact would occur. No long term adverse impact for any resource would occur as a result of the Proposed Alternatives.

## 1.0 PURPOSE AND NEED

### 1.1 INTRODUCTION

Recreational Services proposes to construct a parking lot adjacent to the current RV Storage Lot in order to provide parking for Airmen on the waiting list and to generate the optimum revenue for the RV Storage Lot.

In accordance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] §§ 1500-1508), and 32 CFR Part 989, *et seq.*, Environmental Impact Analysis Process (EIAP) (formerly known as Air Force Instruction [AFI] 32-7061), this Environmental Assessment (EA) will determine whether the proposed alternatives would result in any significant environmental, direct, indirect, or cumulative impacts. It will recommend one alternative based on environmental considerations. If impacts are predicted, mitigation will be prescribed to reduce impacts below the level of significance or recommend the preparation of an Environmental Impact Statement (EIS) to address unmitigated impacts or abandon the proposed action. This EA would also be used to guide the implementation of the proposed action consistent with laws, regulations, and U. S. Air Force standards for environmental stewardship.

Section 1.2 provides background information that briefly describes Fairchild AFB. The purpose and need for the Proposed Action are described in Section 1.3. A detailed description of the Proposed Alternatives is provided in Chapter 2.0. Chapter 3.0 describes the existing conditions of various environmental resources that could be affected if the proposal were implemented. Chapter 4.0 describes how those resources would be affected by implementation of the Proposed Alternatives. Chapter 5.0 addresses the cumulative effects of the Proposed Alternatives, as well as other recent, past, current, and future action that may be implemented in the Region of Influence (ROI) for the Proposed Actions.

### 1.2 BACKGROUND

Fairchild AFB is located in Spokane County, Washington and 12 miles west of Washington's second largest city, Spokane (Figure 1-1). Spokane is considered the regional economic hub for the Inland Northwest. Smaller communities, Medical Lake to the south and west and Airway Heights to the east are within five miles of the Base. The land immediately adjacent to Fairchild AFB is currently zoned Rural; is sparsely populated; and land uses are for the most part agricultural and light industrial.

Fairchild AFB traces its roots to January 1942, originating as the Spokane Army Air Depot. In 1948, the Base was renamed Spokane AFB and in 1950, the Base received its current name, Fairchild AFB. From 1942 to 1946, the Base served as a repair depot for damaged aircraft returning from the Pacific Theater. From 1947 to 1994, Base operations supported the B-29, B-36 and B-52 bomber missions which included storage of munitions for these aircraft. Between 1961 and 1965, the 567th Strategic Missile Squadron and nuclear warheads were supported by the Base. By the mid-60's, Fairchild AFB had a dual mission supporting bombers and air refueling missions. By 1994, the B-52 bomber mission was transferred and Fairchild AFB was designated the 92nd Air Refueling Wing.

Fairchild AFB has many facilities for taking care of its airmen. The Airmen and Family Readiness Center takes care of the families of Airmen who are deployed. In 1986, the Airmen dorms were consolidated onto one campus and in 2011 were renovated for the Dorms 4 Airmen program. In 1994 the RV Storage Lot was opened to support the recreation of Airmen stationed at Fairchild AFB, since neither dorms nor housing have enough parking space for such vehicles.



**Figure 1-1. Fairchild Air Force Base (AFB) and Vicinity**

### **1.3 PURPOSE AND NEED**

The purpose of this Proposed Action is to provide more parking capability for the RV Storage Lot, in order to accommodate a larger base of customers than it is currently capable of supporting. Currently, there are 240 parking spaces, which are used by Active Duty and Air National Guard Airmen and their families stationed at Fairchild AFB, civilians working on base, and some Recreational Services RVs. There is an average waiting list of 35 people. The current storage lot, as it is, is not conducive to parking large RV's in the 40 foot range, since parking spots for those vehicles are too narrow. The RV Storage Lot, under Recreational Services, has determined that 70 additional spaces would be beneficial. They propose a 30 space lot be constructed now, with more to follow on in the future. The annual revenue increase estimated for this proposed action is about \$11,000. Last year the RV Storage Lot earned a profit of \$43,000.

### **1.4 OBJECTIVES OF THE PROPOSED ACTION**

The objective of the Proposed Alternatives would be to "right size" the RV Storage Lot to better serve the recreational needs of Airmen at Fairchild AFB, and to generate more revenue for the sustainment of the RV Storage Lot and Recreational Services as a whole.

The results of the Proposed Alternatives would be the increase of parking space for RVs and the increase of revenue to the RV Storage Lot. This EA will present the effectiveness of each alternative to providing these results, and contrast their respective environmental consequences.

### **1.5 SUMMARY OF KEY ENVIRONMENTAL COMPLIANCE REQUIREMENTS**

#### **National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190), as amended**

NEPA requires all Federal agencies to use a systematic, interdisciplinary approach in decision making which may have an impact on man's environment. Therefore, NEPA directs agencies to assess expected environmental impacts of all Federal actions and proposals. In turn, this data must be considered in the

decision making process. Compliance with NEPA is accomplished through the guidance outlined in 32 CFR 989, Environmental Impact Analysis Process (EIAP).

### Other Environmental Statutes and Regulations

To comply with NEPA, this analysis considers other relevant environmental statutes and regulations. According to the Council on Environmental Quality regulations, requirements of NEPA must be integrated “with other planning and environmental review procedures required by law or by agency so that all such procedures run concurrently rather than consecutively.” Applicable state and federal environmental laws and regulations are:

- Clean Air Act (CAA) (42 USC §§ 7401–7671, as amended)
- Clean Water Act (CWA) of 1977 (33 USC § 1251 *et seq.*)
- Pollution Prevention Act of 1990
- National Historic Preservation Act (NHPA) of 1966 (16 USC § 470)
- Endangered Species Act (ESA) of 1973 (16 USC §§ 1531–1544, as amended)
- Archaeological Resources Protection Act
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA)(40 CFR 302)
- Resource Conservation and Recovery Act (RCRA)
- Toxic Substances Control Act (TSCA) of 1970
- Occupational Safety and Health Administration (OSHA) regulations
- Executive Order (EO) 11988 (Floodplain Management)
- EO 11990 (Protection of Wetlands)
- EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations)

## 2.0 DESCRIPTION OF PROPOSED ALTERNATIVES

This section describes the Proposed Alternatives for the expansion of RV Parking for the RV Storage Lot.

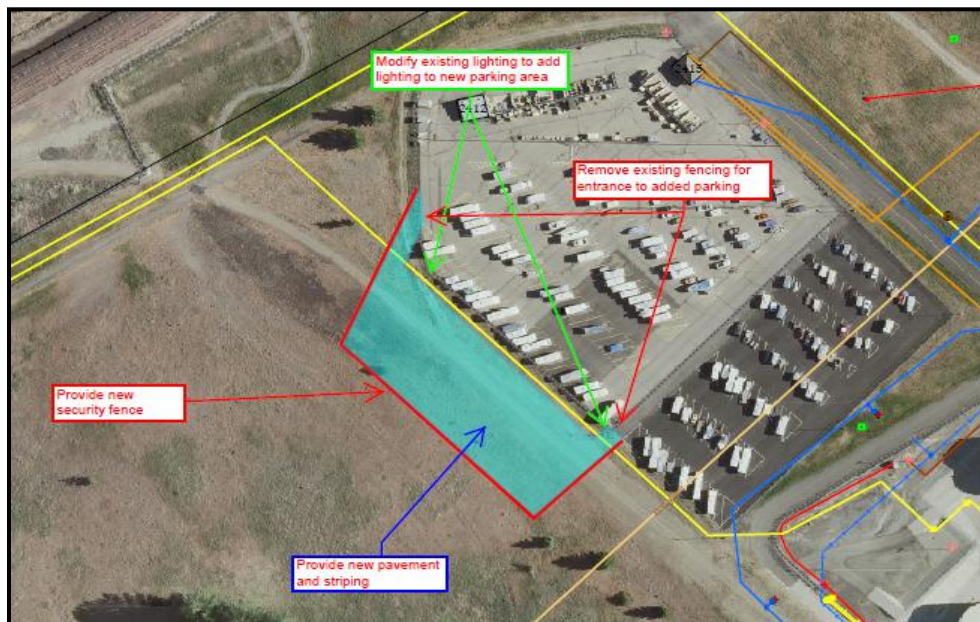
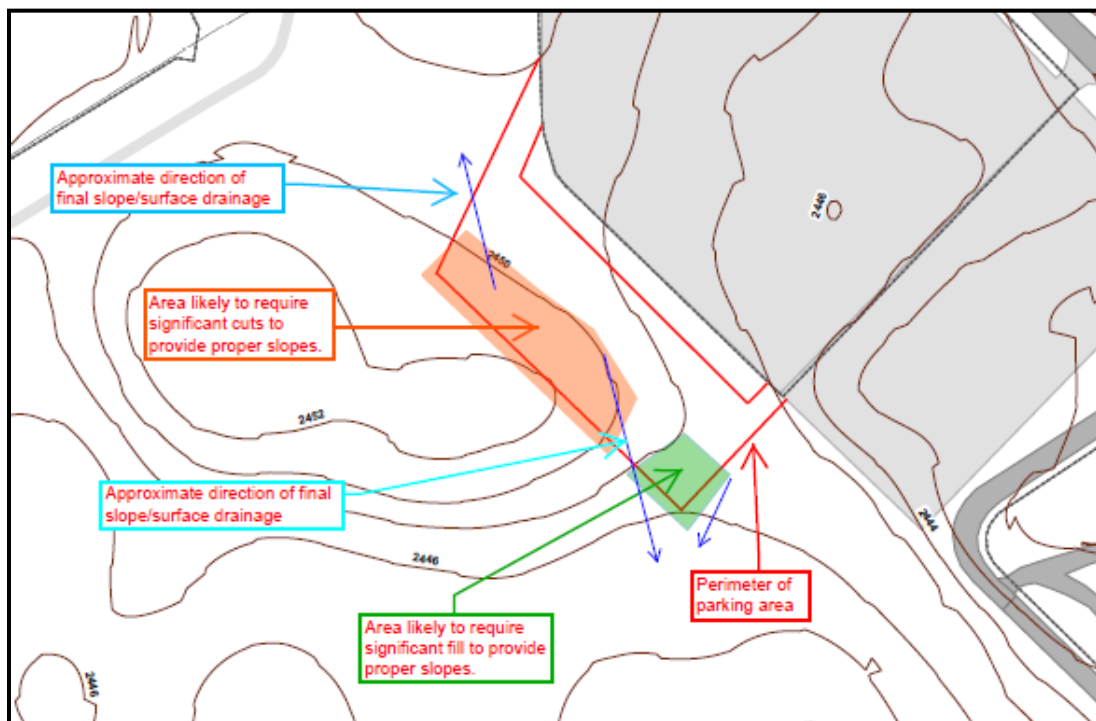


Figure 2-1. RV Storage Lot Phase 1 Expansion Site Plan

## 2.1 NEW CONSTRUCTION ALTERNATIVE

This alternative involves the construction of a parking lot in a portion of land adjacent to and aligned with the existing lot to the southwest, just inside of the base fenceline (Figure 2-1). The parking lot would be 9460 square yards, with two entrances leading from the existing lot through the existing fenceline. The project area shall be defined to be the area in which a new parking lot, access roads, and security fencing would be constructed. The project is proposed in two phases. Phase one has been designed, and is shown in Figure 2-1 and Figure 2-2. The final configuration and size of the lot is shown in Figure 2-3.

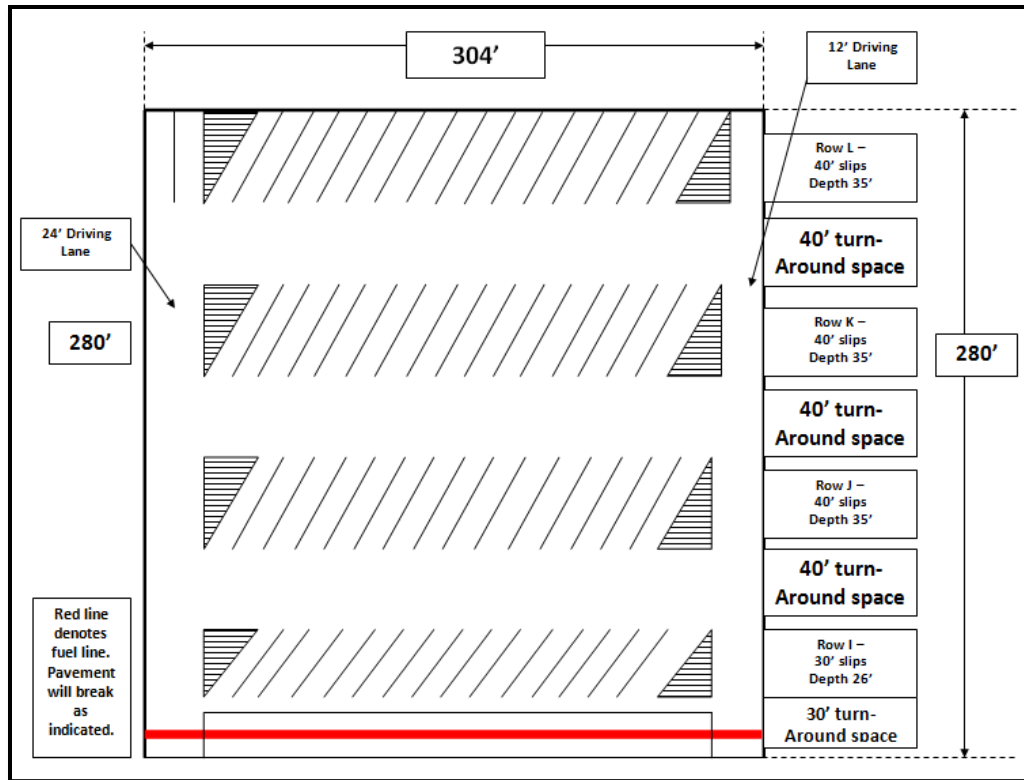
An alternate proposal is to lay the new parking lot with gravel to minimize costs and create a pervious surface. The lot would still be lighted and fenced. This option was discarded by the RV Storage Lot leadership since it is not desirable for storing RVs.



**Figure 2.2. RV Storage Lot Phase 1 Expansion Site Topography**

The proposed project would involve the following actions:

- Remove a minimum of 4 inches of the organic topsoil and roots within the pavement area
- Cut and fill the pavement area to grade for suitability for RV parking as well as drainage.
- Prepare subgrade with structural fill as required for soil stability and proof-roll for compaction.
- Lay a WSDOT standard base course at least 6 inches thick with  $\frac{3}{4}$  inch compaction.
- Pave with at least 3 inches of asphalt, sloped to provide adequate drainage.
- Paint white pavement striping according to the Pavement and Striping Plan (see Figure 2.3).
- Provide suitable lighting for the added parking area using the existing two adjacent light poles.
- Remove portions of fence for new lot entrances and construct barbed-wire security fencing around the new parking lot.

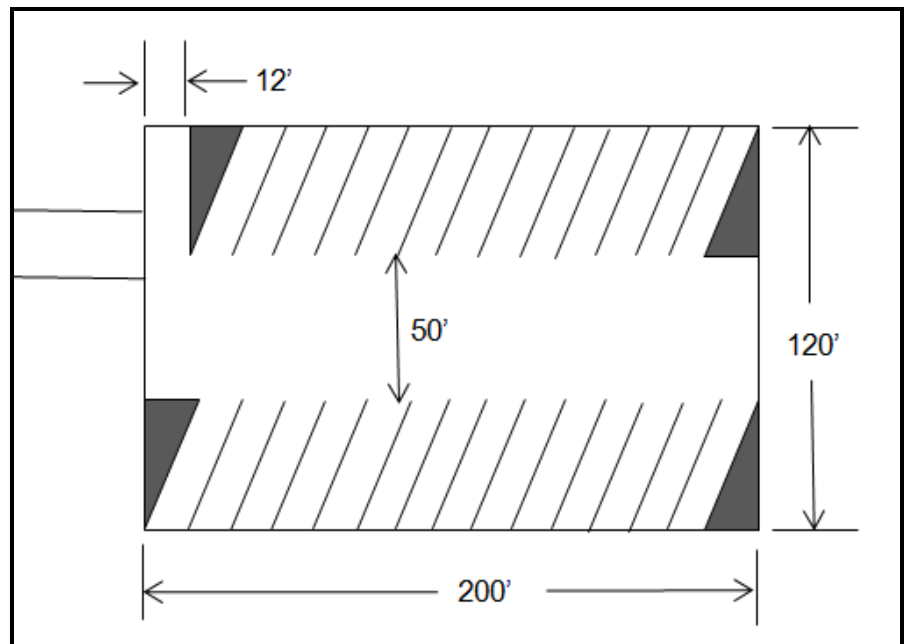


**Figure 2-3. RV Storage Lot Expansion Pavement and Striping Plan**

## 2.2 EXISTING LOT USE ALTERNATIVE

The Existing Lot Use Alternative involves cordoning off an existing, unused parking lot with a secure entry point for the use of RV parking and storage. This alternative will require the construction of a security fence and gate, the installation of lighting, and repainting and -striping the pavement.

Possible parking lots that may be used for this purpose include a seldom used parking lot for an old football field near the Airmen Leadership School (ALS) of 2670 square yards, or a 2670 square yard lot on the south side of the base located outside of the old gate for access into the MSA. The old Football Field Parking Lot is geographically separated from the current RV Storage Lot and located in a highly visible place. Also, the parking lot is an overflow parking lot for large events at



**Figure 2-4. Existing Lot Pavement and Striping Plan**

the ALS.

The lot on the south side is also geographically separated from the current RV Storage lot, and is somewhat visible as it is right outside entrance to the MSA. It is 28% smaller than the proposed New Construction Alternative. With proper design, these parking lots could hold 27 parking slips (Figure 2-4).

## 2.3 NO ACTION ALTERNATIVE

The implementation of the No Action Alternative would mean that no additional parking lot space would be acquired by the RV Storage Lot. Possible alternate small-scale procedures that could be implemented under this alternative could be to conduct a study to re-organize and re-paint the existing parking lot to maximize the space utilization and number of spaces according to the needs and uses of the users. This procedure will not be examined in this Environmental Assessment since it is not large-scale enough to be considered as a separate option

## 2.4 COMPARISON OF ALTERNATIVES

The criteria to be used for the comparison of alternatives will be effectiveness in fulfilling objectives, relative environmental impact, cost efficiency, and aesthetics.

### Effectiveness in fulfilling objectives

The alternatives presented do not all have the same level of effectiveness. For the purposes of this EA, the level of effectiveness of each alternative will depend on the increase in parking spaces provided by that alternative, the increase in revenue that option provides annually, and the convenience of each alternative in its location.

**Table 2.1. Effectiveness of Alternatives**

| Alternatives     | Increase in Parking Spaces | Increase in Revenue/Year | Proximity to Existing Lot |
|------------------|----------------------------|--------------------------|---------------------------|
| New Construction | 70 x 40' Slips             | \$16,700                 | Adjacent                  |
| Existing Lot Use | 27 x 40' Slips             | \$9,720                  | Separate                  |
| No Action        | None                       | None                     | N/A                       |

Source: Smith, Damian.

Based on this criterion, *the New Construction Alternative* is the most effective and *the Existing Lot Use Alternative* is fairly effective in fulfilling the objectives desired by the users. The New Construction Alternative has the advantage of being adjacent to the current lot.

### Relative Environmental Impact

In this early comparison of alternatives, a brief look at relative environmental impact will be considered, based on the scope of the alternative. The scope of each alternative consists of paint striping, so that will not be considered in the comparison.

**New Construction Alternative:** The scope of this alternative involves the creation of 9460 square yards of newly improved, impervious pavement area, putting dust in the air from construction. It is not near any surface waterways or wetlands. It maintains the proper land use for Recreational Services in the Community Zone of the base.

**Existing Lot Use Alternative:** The scope of this alternative involves minimal disturbance of the ground with only the installation of a security fence around an existing parking lot. There will be no

appreciable effect on the air quality, water resources, or geologic resources. Both proposed existing lots fall outside the Community Zone land use.

**No Action Alternative:** Under the No Action Alternative, no positive or negative environmental impact is expected.

Based on this criterion, the No Action Alternative has the least impact to the environment, closely followed by the Existing Lot Use Alternative. The No Action Alternative and the New Construction Alternative maintain consistent land use.

### Cost Efficiency

The cost efficiency comparison of alternatives looks at the costs versus gains and the payback period of each alternative.

**New Construction Alternative:** The cost of the first phase of the project is estimated at \$263,900. The increase in revenue for this phase is estimated to be \$10,800 annually, making the payback period 25 years. This represents a large cost versus gain, and a long payback period.

**Existing Lot Use Alternative:** This project has not had a cost-estimate conducted. However, its cost would mainly consist of installing security fence, updating lighting, and paint striping. For a project that would cost about \$80,000, and additional annual revenue generated of \$9,720, the payback period would be about 8.25 years. This represents a reasonable cost versus gain and payback period.

**No Action Alternative:** This alternative involves no cost and no benefit, since no activities would be taking place.

### Aesthetics

This criterion is meant to consider the aesthetics or propriety of the location of the RV Storage Lot. This parking lot is meant for storage, not daytime parking. Therefore it should not be in a central or highly visible location, as it will be in the way of day-to-day operations, and present an eyesore to the community. Of the three alternatives presented, the New Construction Alternative and the No Action Alternative do not cause any problems. Both are in an out-of-the-way location on the north side of Fairchild AFB. The Existing Lot Use Alternative could possibly present a problem, since one of the lots considered is in a more central, more visible location on base. The other is not easily accessible by most of the base population, since it is on the south side of the base. Only RVs of good appearance should be stored in this lot for this alternative.

In consideration of these criteria, each alternative appears to have value for achieving the objectives and will be carried forward to be assessed and presented as an option.

## 3.0 AFFECTED ENVIRONMENT

This chapter will describe the environment in and around the project area to be affected by the proposed alternatives. It will examine the effects on air quality, noise, water, geological, biological and cultural resources, infrastructure and utilities, land use resources, safety and occupational health, hazardous materials and waste management, and environmental justice.

### 3.1 AIR QUALITY

### 3.1.1 Definition of Resource

**Federal Air Quality Standards.** Air quality is determined by the type and concentration of pollutants in the atmosphere, the size and topography of the air basin, and local and regional meteorological influences. The significance of a pollutant concentration in a region or geographical area is determined by comparing it to federal and/or state ambient air quality standards (AAQS). Under the authority of the CAA, the USEPA has established nationwide air quality standards to protect public health and welfare, with an adequate margin of safety. These federal standards, known as the NAAQS, represent the maximum allowable atmospheric concentrations and were developed for seven “criteria” pollutants: O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, particulate matter less than or equal to 10 microns in diameter (PM<sub>10</sub>), particulate matter less than or equal to 2.5 microns in diameter (PM<sub>2.5</sub>), and Pb. Because volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>) are precursors to the formation of O<sub>3</sub> in the atmosphere, control of these pollutants is the primary method of reducing O<sub>3</sub> concentrations in the atmosphere. Areas that meet the NAAQS for a criteria pollutant are designated as being in attainment; areas not meeting NAAQS are designated as nonattainment areas for specified pollutants.

**State Air Quality Standards.** Under the CAA, state and local agencies may establish AAQS and regulations of their own, provided that these are at least as stringent as the federal requirements.

**General Conformity.** CAA Section 176(c), General Conformity, established certain statutory requirements for federal agencies with proposed federal activities to demonstrate conformity of the proposed activities with each state’s SIP for attainment of the NAAQS. Federal activities must not:

- (a) cause or contribute to any new violation;
- (b) increase the frequency or severity of any existing violation; or
- (c) delay timely attainment of any standard, interim emission reductions, or milestones in conformity to a SIP’s purpose of eliminating or reducing the severity and number of NAAQS violations or achieving attainment of NAAQS.

General conformity applies only to nonattainment and maintenance areas.

### 3.1.2 Affected Environment

Of the six criteria pollutants identified by the U.S. Environmental Protection Agency (EPA), two are of concern in Spokane County, specifically carbon monoxide (CO) and particulate matter (PM). Motor vehicles are the largest contributors to CO, with the highest concentrations occurring during the winter months. PM comes from a variety of sources including dust from unpaved and paved roadways, construction activities, gas and diesel engines, and indoor/outdoor burning.

Spokane County is within the Eastern Washington-Northern Idaho Interstate (EWNII) Air Quality Control Region. Spokane County is classified as being in attainment with all criteria pollutants (USEPA 2004b). CO and PM Attainment Plans rely on control strategies for tracking vehicle miles traveled; vehicle emissions inspection and maintenance programs; oxygenated fuels; transportation conformity; control measures for residential wood combustion and control strategies for windblown dust.

The Spokane Regional Clean Air Agency works with Fairchild AFB in monitoring and implementing the installation’s stationary source permits and emissions inventory. Emissions from mobile sources are not tracked on Fairchild AFB. Fairchild AFB is classified as a synthetic minor pollution source and has voluntary limits on air emissions. There are various stationary combustion sources at Fairchild AFB, mostly from boilers and generators; volatile sources from organic liquids, and miscellaneous particulate sources from abrasive blasting, woodworking equipment, and a dust collection system designed to capture emissions from a firing range.

Regional wind patterns generally transport air pollutants eastward from Fairchild AFB toward the Spokane Valley. Winter months have the highest incidences of degraded air quality due to wood burning stoves and vehicular emissions. These emissions are exacerbated by temperature inversions, stagnant air reduces air quality, and valley topography.

## 3.2 NOISE

### 3.2.1 Definition of Resource

Noise is considered to be unwanted sound that interferes with normal activities or otherwise diminishes the quality of the environment. It may be intermittent or continuous, steady or impulsive. It may be stationary or transient. Stationary sources are normally related to specific land uses (e.g., housing tracts or industrial plants). Transient noise sources move through the environment, either along relatively established paths (e.g., highways, railroads, and aircraft flight tracks around airports), or randomly. There is wide diversity in responses to noise that not only vary according to the type of noise and the characteristics of the sound source, but also according to the sensitivity and expectations of the receptor, the time of day, and the distance between the noise source (e.g., an aircraft) and the receptor (e.g., a person or animal). The physical characteristics of noise, or sound, include its intensity, frequency, and duration. The unit used to measure the intensity of sound is the decibel (dB).

The frequency of sound is measured in cycles per second, or hertz (Hz). Sound measurement is further refined through the use of "A-weighting." The normal human ear can detect sounds that range in frequency from about 20 Hz to 15,000 Hz. However, all sounds throughout this range are not heard equally well. Therefore, through internal electronic circuitry, some sound meters are calibrated to emphasize frequencies in the 1,000 to 4,000 Hz range. The human ear is most sensitive to frequencies in this range, and sounds measured with these instruments are termed "A-weighted." Throughout this document, dB levels can be assumed to be A-weighted. The duration of a noise event, and the number of times noise events occur, are also important considerations in assessing noise impacts.

As a basis for comparison when noise levels are considered, it is useful to note that at distances of about 3 feet, noise from normal human speech ranges from 63 to 65 dB, operating kitchen appliances range from about 83 to 88 dB, and rock and roll concerts may approach 110 dB.

#### ***Maximum Sound Level***

The  $L_{\max}$  metric defines peak noise levels.  $L_{\max}$  is the highest sound level measured during a single noise event (e.g., an aircraft overflight or the operation of heavy construction equipment).  $L_{\max}$  is important in judging a noise event's interference with conversation, sleep, or other common activities.

#### ***Day-Night Average Sound Level***

The  $L_{dn}$  metric is a number that describes an average sound level for a 24-hour day, weighted for day and night. The number of times noise events occur during given periods is an important consideration in assessing noise impacts. This metric sums the individual noise events and averages the resulting level over the 24-hour period. Thus, it is a composite metric which considers the maximum noise levels, the duration of the events, the number of events that occur, and the time of day during which they occur. This metric adds 10 dB to those events that occur between 10 p.m. and 7 a.m. to account for the increased intrusiveness of noise events that occur at night when ambient noise levels are normally lower than during the day time. This cumulative metric does not represent the variations in the sound level heard. Nevertheless, it does provide an excellent measure for comparing environmental noise exposures when there are multiple noise events to be considered. Its use in determining which land uses are compatible with a given noise level is endorsed by the scientific community and several governmental agencies (USEPA 1974; Federal Interagency Committee on Urban Noise 1980; Federal Interagency Committee on Noise 1992; Air Force 1999).

Finally, it should be noted that ambient background noise is not considered in the noise calculations that are presented below. There are two reasons for this. First ambient background noise, even in wilderness areas, varies widely depending on location and other conditions. For example, studies conducted in an open pine forest in the Sierra National Forest in California have measured up to a 10 dB

variance in sound levels simply due to an increase in wind velocity (Harrison 1973). In general however, ambient noise levels in a typical low-density residential area can be expected to be approximately 51 dB and noise levels in a typical farm field (likely similar in noise level to Fairchild AFB) can be expected to be approximately 44 dB (USEPA 1974). In calculating noise levels, louder sounds dominate the calculations and in general, aircraft and other transportation-related noise would be expected to be the dominant noise sources characterizing the acoustic conditions in the ROI. Therefore, it is reasonable to assume that ambient background noise in the project's ROI would have little or no effect on the calculated  $L_{dn}$ .

Using measured sound levels as a basis, the DoD and the U.S. Department of Transportation, Federal Highway Administration have developed several computer programs to calculate noise levels resulting from aircraft operations and construction/demolition activities. Sound levels calculated by these programs have been extensively validated against measured data, and have been proven to be highly accurate.

### **3.2.2 Affected Environment**

The portions of Fairchild AFB that are affected by the Proposed Alternatives are exposed to little aircraft noise. The noise levels on the north side of base can be described to be ambient (45-55 dB) (KC-135 Noise Contour 1995). Some additional noise results from day-to-day activities associated with the operations, maintenance, and industrial functions which are part of the operation of Fairchild AFB. These noise sources include the operation of ground-support equipment and other transportation noise from vehicular traffic. However, this noise is generally temporary and highly localized. Adjacent to Fairchild AFB, cumulative noise levels are attributed to seasonal farming activity, light to moderate vehicular movement on secondary roads and Highway 2, occasional heavy rail transportation, and flight take off and landings at the Spokane International Airport.

## **3.3 WATER RESOURCES**

### **3.3.1 Definition of Resource**

Water resources include both surface water and groundwater. Surface water includes the lakes, rivers, streams, and wetlands within a watershed. Groundwater includes aquifers. The Clean Water Act (CWA) is the primary federal law that protects the waters of the United States. Since 1972, amendments to the CWA and subsequent regulations have been developed to meet the objectives of maintaining and restoring the integrity of those water bodies. The National Pollutant Discharge Elimination System (NPDES) permit program establishes federal limits on discharge of pollutants to surface waters.

The Region of Influence (ROI) includes the project area and adjacent area that includes drainage conveyance from the project area to the areas of collection and infiltration and is no more than approximately 1/4 mile from the project area.

### **3.3.2 Affected Environment**

#### ***Wetlands***

The Project Area is located near the northern fenceline of Fairchild AFB, and there are no wetlands in or surrounding the project area. The northern portion of the base has no wetlands in it. All of the wetlands that lie within Fairchild AFB are located in the southern portion of FAFB, near the 336th TRG and the Munitions Storage Area. Fairchild AFB's wetland inventory identifies approximately 200 acres of wetlands and vernal pools in the area, all of which are isolated from surface water rivers or streams.

#### ***Storm Water***

Most of the land surrounding the RV Storage Lot is unimproved lands where storm water is conveyed by dispersed overland flow. The storm water runoff from the RV Storage Lot is dispersed and

percolated into groundwater aquifers to the North and West. There is a drainage ditch running along the fenceline north of the parking lot which may catch some storm water runoff in periods of high flow. There is also a low-lying area just north of Galena Station housing which in wet periods of the year ponds and may also receive some runoff from the existing RV Storage Lot. None of the storm water runoff from this parking lot runs off base, but is immediately percolated, or stored in one of these two locations and evaporated or percolated into the groundwater.

### ***Groundwater***

The groundwater beneath Fairchild AFB consists of variable, shallow, unconfined aquifers overlying deeper aquifers confined by basalt bedrock layers. Depth of shallow groundwater depends on a highly complex and variable stratigraphy of glacial flood deposits overlying bedrock. Seasonal water tables may be at the surface in years of high precipitation and average depth to water table is about 5 - 20 feet. Groundwater monitoring by the Environmental Restoration Program (ERP) has identified several sites with high levels of trichloroethylene (TCE) in the groundwater. No TCE has been identified in the groundwater under the project area. The proposed project is located within a moderate aquifer susceptibility area; no negative impact to ground water is anticipated.

### ***Surface Water***

Fairchild AFB is located at the hydrologic head of three watershed basins, the Lower Spokane River, Hangman Creek, and the Palouse River. There are several open drainage ditches, storm water detention ponds/swales, and numerous isolated wetlands. The topography is nearly flat to undulating with no indication that surface runoff is conveyed by surface flow to stream channels within the Base boundary. The primary function of surface water features on the Base is temporary containment of storm water and groundwater recharge.

## **3.4 GEOLOGIC RESOURCES**

### **3.4.1 Definition of Resource**

Geologic resources include topography, geology, and soils. Topography refers to an area's surface features including its vertical relief. These features may have scientific, historical, economic, and recreational value. Geologic resources of an area typically consist of surface and subsurface materials and their inherent properties. The term "soils" refers to unconsolidated materials formed from the underlying bedrock or other parent material. Soils play a critical role in both the natural and human environment. The ROI for these resources is the immediate area of the Proposed Action.

### **3.4.2 Affected Environment**

Fairchild AFB is situated within the channeled scablands of the Columbia River Basin which has been shaped by large basalt flows, windblown soils, and the great floodwaters of the glacial ice dam break of Glacial Lake Missoula.

Topography of Fairchild AFB is flat to gently undulating with slopes rarely exceeding ten percent. The average elevation is approximately 2340 feet. Soils in the channeled scablands can be quite variable and contrasting. Typically soils consist of shallow regolith underlain by basalt bedrock with a thin layer of volcanic ash influenced loess on the surface. Deeper soils occur associated with glacial flood and melt water deposits of sand, silts, and clays. These areas can retain subterranean water ways. Remnant clayey lacustrine materials or deeply weathered basalt bedrock often perch water tables in the area.

Soils and topography within the project area have been unaltered by previous earthmoving activities. There is a small gravel road passing through this project area. Within the project area, USDA Natural Resource Conservation Service mapped Cheney Uhlig Silt Loams. (NRCS 2006). These soils are

characterized as well drained soils. Capacity of the most limiting layer to transmit water is moderately high to high. Runoff infiltrates rapidly into the soils in this area (Figure 3-1).



**Figure 3-1 Project Area Soils Map (NCRS 2006)**

## **3.5 BIOLOGICAL RESOURCES**

### **3.5.1 Definition of Resource**

Biological resources consist of native or naturalized plants and animals, along with their habitats. Although the existence and preservation of biological resources are both intrinsically valuable, these resources also provide essential aesthetic, recreational, and socioeconomic benefits to society. The analysis focuses on plant and animal species and vegetation types that are important to the functioning of local ecosystems, are of special societal importance, or are protected under federal or state law or statute. Biological resources include vegetation and habitat, wetlands, fish and wildlife, and special status species. ROI for biological resources is defined as the open area surrounding the project area and bounded by the Fairchild AFB fenceline to the north, the Galena Station housing area to the south, and the southwestern edge of the existing RV Storage Lot to the East.

### **3.5.2 Affected Environment**

#### ***Vegetation***

Improved and semi-improved areas make up 80% of Fairchild AFB and are mostly found in the northern portion of the base. Non-native landscaping and groundcover in the improved areas have removed much of the historic vegetative cover. The semi-improved areas are primarily composed of mowed non-native and native grasses. The remaining 1,000 acres is undeveloped land that contains

open grass fields, stands of ponderosa pines, wetland areas, native grassland and shrubs, and areas of mixed native and non-native grasses and invasive weeds.

The proposed project area is managed as semi-improved, is non-irrigated and is vegetated with herbaceous, woody, and other urban/built up developed vegetation. The area is mowed and/or treated with herbicides to reduce weed growth and seed dispersal.

Spalding's catchfly (*Silene spaldingii*) is a threatened plant species, both federally and state listed. Spalding's catchfly occurs on the north side of mounded soils. A conservation area exists for the Spalding catchfly south of the MSA. The community type, Ponderosa pine/snowberry, (*pinus ponderosa/symphocarpus albus*) is listed as a rare community type by the state of Washington and occurs in isolated pine stands south of the MSA. Several other wetland sensitive plant species have been identified by the Washington Natural Heritage Program; most of which have only been identified within the Spalding Catchfly conservation area and are associated with vernal pools. These plant species have not been identified near the project area. They are not expected to occur in the project area due to the distance from its naturally occurring areas in the south of the Base.

### **Wildlife**

In general, wildlife habitat and species present within the project area and at Fairchild AFB are typical of urban and suburban areas and open pine savanna areas. Migratory birds and raptors common to eastern Washington frequent the area. Small mammals include mice, voles, coyote, marmot, and pocket gophers. A small deer herd is isolated within the boundary fence, numbers about 40, and roams the southern end of the Base. Several bird species, designated as Federal species of concern, state candidate species, state monitor species, or state sensitive species have been sighted or are known to have nested near or on Fairchild AFB. Most of these species are migratory in nature. These species include: Golden Eagle, Burrowing Owl, Grasshopper Sparrow, Western Bluebird, Red-necked Grebe, Great Blue Heron, Turkey Vulture, Caspian Tern, Black Tern, and Osprey. The white-tailed jackrabbit, a state Candidate species, is known to occur adjacent to Fairchild AFB but has not been sighted for many years on the Base. Columbian ground squirrel and American badger, while both carefully monitored by the Washington Department of Fish and Wildlife, are not Federally protected species. They have been documented as occurring at Fairchild AFB, but recent surveys (EWU 2005) have not indicated the presence of the Columbian ground squirrel on base. The likelihood of these species nesting, denning, or burrowing in the project area is possible since the area is mostly undisturbed, has been returned to a natural state, and is of the habitat type to support burrowing animals.

### **Fish**

There are no fish at the main installation of Fairchild AFB.

### **Vernal Pools and Wetlands**

There are no vernal pools identified within or near the project area. Vernal pools are located south of the Munitions Storage Area on Base and offer a unique suite of plant species and habitat unlike other wetlands on the Base. Wetlands have been discussed in Section 3.4.

## **3.6 CULTURAL RESOURCES**

### **3.6.1 Definition of Resource**

Cultural resources are any prehistoric or historic district, site, or building, structure, or object considered important to a culture, subculture, or community for scientific, traditional, religious or other purposes. They include archaeological resources, historic architectural resources, and traditional resources. Archaeological resources are locations where prehistoric or historic activity measurably

altered the earth or produced deposits of physical remains (e.g., arrowheads, bottles). Historic architectural resources include standing buildings, dams, canals, bridges, and other structures of historic or aesthetic significance. Traditional resources are associated with cultural practices and beliefs of a living community that are rooted in its history, and are important in maintaining the continuing cultural identity of the community.

Historic properties (as defined in 36 CFR 60.4) are significant archaeological, architectural, or traditional resources that are either eligible for listing, or listed in, the NRHP. Historic properties are evaluated for potential adverse impacts from an action, as are significant traditional resources identified by American Indian tribes or other groups. In 1999, the DoD promulgated its *American Indian and Alaska Native Policy*, which emphasizes the importance of respecting and consulting with tribal governments on a government-to-government basis. The policy requires an assessment, thorough consultation of the effect of proposed DoD actions that may have the potential to significantly affect protected tribal resources, tribal rights, and Indian lands before decisions are made by the services. The ROI includes the immediate project area.

### **3.6.2 Affected Environment**

No known prehistoric or historic resources have been identified and no known potential for historic resources has been identified in the project area during cultural resource surveys on Fairchild AFB. Five complete historical and archaeological surveys have been completed at Fairchild AFB. Findings include six archaeological sites, one of which, a WWII building, may be eligible for nomination to the National Register of Historic Places. This building is not located in or near the project area.

There are no documented sites or areas of known cultural importance to local Native American tribes and the potential for discovery of such sites is low. The probability is also low that undisturbed, significant archaeological resources, including human graves, would be discovered within the project area.

## **3.7 INFRASTRUCTURE AND UTILITIES**

### **3.7.1 Definition of Resource**

Infrastructure consists of the systems and physical structures that enable a populace to function and to accommodate mission operations. On Fairchild AFB infrastructure includes a transportation network, utilities, communications, airfield and support buildings, water supply, sanitary systems and wastewater, administrative and maintenance buildings, and solid waste disposal.

### **3.7.2 Affected Environment**

The infrastructure of the project area is limited to the RV Storage Lot: a paved parking lot, a security fence, a road leading up to the lot, and lighting. The immediate surrounding area, including the area of the proposed new parking lot, is mostly undisturbed land with a small gravel road running parallel to the existing fenceline and a fuel line running alongside the existing fenceline.

## **3.8 LAND USE RESOURCES**

### **3.8.1 Definition of Resource**

Land use is the classification of either natural or human-modified activities normally occurring at a given location. Natural land use includes rangeland and other open or undeveloped areas. Human modified land use classifications include residential, commercial, industrial, airfield, recreational, and other developed areas. Land use is regulated by management plans, policies, and regulations determining the type and extent of land use allowable in specific areas and protection specially

designated for environmentally sensitive areas. The ROI for land use consists of all the lands of Fairchild AFB, in particular the project area.

### **3.8.2 Affected Environment**

The Base General Plan for Fairchild AFB has the following land use classifications: *airfield/industrial, community, administrative, open space, outdoor recreation, training, Survival School Area, and Washington Air National Guard*.

The existing parking lot is about 13,260 SY, and the new construction project area is about 9460 SY. The existing parking lot is classified as community land use. The proposed project area is in a field that is classified as open space, but if it is sited, it will be classified as community as well. Constraints to development are safety clear zones around potentially explosive areas, wetlands, threatened and endangered species and habitats, cultural resources, and other areas that present public hazards such as contamination sites. There are none of these potential constraints surrounding the project area.

## **3.9 SAFETY AND OCCUPATIONAL HEALTH**

### **3.9.1 Definition of Resource**

This section addresses ground safety and Anti-terrorism/Force Protection (AT/FP) with regard to day-to-day operations at Fairchild AFB and construction job site safety of those providing project-related services.

### **3.9.2 Affected Environment**

#### ***Ground Safety***

Day-to-day operations and maintenance activities are performed in accordance with applicable Air Force safety regulations, published Air Force Technical Orders, and standards prescribed by Air Force Office of Safety and Health requirements.

#### ***Anti-terrorism/Force Protection***

As a result of terrorist activities, the DoD and the Air Force have developed a series of AT/FP guidelines for military installations. These guidelines address a range of considerations that include access to the installation, access to facilities on the installation, facility siting, exterior design, interior infrastructure design, and landscaping. The intent of this siting and design guidance is to improve security, minimize fatalities, and limit damage to facilities in the event of a terrorist attack.

## **3.10 HAZARDOUS MATERIALS AND WASTE MANAGEMENT**

### **3.10.1 Definition of Resource**

This section describes the affected environment associated with solid waste management, hazardous materials and wastes, storage tanks, asbestos-containing materials (ACMs), and the Environmental Restoration Program (ERP) sites.

Municipal solid waste management and compliance at Air Force installations is established in AFI 32-7042, *Solid and Hazardous Waste Compliance*. In general, AFI 32-7042 establishes the requirements for installations to have a solid waste management program to incorporate a solid waste management plan; procedures for handling, storage, collection, and disposal of solid waste; record-keeping and reporting; and pollution prevention. AFI 32-7080, *Pollution Prevention Program*, addresses source reduction, resource recovery, and recycling of solid waste. The ROI for hazardous materials and wastes is the project area where ground disturbance would occur.

### 3.10.2 Affected Environment

There are no known ERP remediation sites within or nearby the project area (Connally, 2011). The project area is mostly undisturbed ground, and no hazardous material spills have been reported in or near the project area.

Fairchild AFB has policies in place for reporting to regulatory agencies, safe handling and disposal of hazardous and non-hazardous solid waste for contractors. Contractors are required to complete abatement plans and to follow all AF policies and state and federal regulations pertaining to abatement, safe handling and disposal.

## 3.11 ENVIRONMENTAL JUSTICE

### 3.11.1 Definition of Resource

In 1994, EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations (Environmental Justice)*, was issued to focus the attention of federal agencies on human health and environmental conditions in minority populations and low-income populations. This EO was also established to ensure that, if there were a disproportionately high and adverse human health or environmental effects of federal actions on these populations, those effects would be identified and addressed. The environmental justice analysis addresses the characteristics of race, ethnicity and poverty status for populations residing in areas potentially affected by implementation of the Proposed Action. In 1997, EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks (Protection of Children)*, was issued to identify and address anticipated health or safety issues that affect children. The protection of children analysis addresses the distribution of population by age in areas potentially affected by implementation of the Proposed Action. For the purpose of the environmental justice analysis, minority and low-income populations and the population of children are defined as:

- *Minority Populations:* All persons identified by the Census of Population and Housing to be of Hispanic or Latino origin, regardless of race, plus non-Hispanic persons who are Black or African American, American Indian and Alaskan Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other (i.e., non-white) Race or Two or More Races.
- *Low-Income Populations:* All persons who fall within the statistical poverty thresholds published by the U.S. Census Bureau in the Current Population Survey are considered to be low-income. For the purposes of this analysis, low-income populations are defined as persons living below the poverty level (\$16,895 for a family of four with two children, adjusted based on household size and number of children), as reported in the 2000 Census. The percentage of low-income persons is calculated as the percentage of all persons for whom the Census Bureau determines poverty status, which is generally a slightly lower number than the total population since it excludes institutionalized persons, persons in military group quarters and college dormitories, and unrelated individuals under 15 years old.
- *Children:* All persons identified by the Census of Population and Housing to be under the age of 18 years.

The ROI for environmental justice consists of the greater Spokane area within Spokane County, Washington.

### 3.11.2 Affected Environment

Spokane County population at the time of the 2010 Census was 471,221 (U.S. Census Bureau 2010). Between 2000 and 2010, Washington's population increased by 14 percent. In the same period of time, Spokane grew by 12 percent. The top industries are education, healthcare, and social services. Public administration is the next highest area of industry, regionally. And as would be expected, there is a

larger portion of the population in the Spokane area employed by the Armed Forces compared with the State.

In 2008, the unemployment rate for the region was 5.6 percent which was slightly higher than in 2000 at 5.2 percent. Fairchild AFB is the largest employer in the Inland Northwest and employs approximately 2,900 military and civilian employees. The annual payroll of Fairchild AFB to active duty, civilian and retirees is approximately \$452 million and it is estimated that Fairchild AFB indirectly creates an additional 2,150 jobs with an estimated total impact to the community of \$1 billion annually.

Based on the results of the 2000 Census, areas within and nearest Fairchild AFB have the highest population of African Americans than for the Spokane area or the State. The area southeast of Fairchild AFB had the highest percentage of individuals below the poverty level and the lowest per capita income.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

The environmental consequences of each proposed alternative will be evaluated in order to compare the alternatives and determine if they will have any significant impacts. The alternatives will be evaluated based on Air Quality, Noise, Water Resources, Geological Resources, Biological Resources, Cultural Resources, Infrastructure and Utilities, Land Use Resources, Safety and Occupational Health, Hazardous Materials and Waste Management, and Environmental Justice.

### **4.1 AIR QUALITY**

The environmental consequences to local and regional air quality conditions as a result of the proposed action is determined based upon the increases in regulated pollutant emissions relative to existing conditions and ambient air quality. A significant impact would be found if the action led to one or more of the following: 1) cause or contribute to a violation of air quality standards; 2) expose sensitive receptors to increased pollutant concentrations; 3) represent an increase of 10 percent or more of an affected emissions inventory; or 4) delay attainment or exceed any evaluation criteria established by a state implementation plan.

#### **4.1.1 New Construction Alternative**

Regulated pollutant emissions from the proposed action would not contribute to or affect local or regional attainment status. The proposed action would temporarily result in a slight increase in particulate matter pollutant levels in the air in the vicinity during construction activities. Off-site and on-site effects from dust would be abated through dust control measures during construction such as the use of tackifiers and watering of bare soil areas. These actions are specified by the Fairchild AFB Multiple Award Task Order Contract (MATOC) basic contract and the Statement of Work (SOW). Fugitive dust situations would be rare and readily dissipated by the westerly flow of winds normal for the area during the construction season.

#### **4.1.2 Existing Lot Use Alternative**

The Existing Lot Use Alternative would not contribute to or affect local or regional attainment status. The temporary slight increase in air pollutant levels in the vicinity during installation activities would be unappreciable.

#### **4.1.1 No Action Alternative**

The No Action alternative would result in unchanged conditions at FAFB. The base would continue to operate in compliance with all permits, with minimal impact to air quality.

## 4.2 NOISE

In this section, noise associated with proposed activities are considered and compared with current conditions to assess impacts. The  $L_{\max}$  noise metric is referenced because it provides an intuitive measure of actual noise experienced near the worksite, and the  $L_{dn}$  metric is used because it allows direct comparison between construction noise and the noise of aircraft operations in the area. Current noise levels and noise expected to be generated during construction activities used the Federal Highway Administration's Roadway Construction Noise Model (RCNM) (U.S. Department of Transportation 2006).

### 4.2.1 New Construction Alternative

Primary noise sources during construction activity would be heavy equipment operation such as earth moving equipment, asphalt-laying equipment, and graders. Noise levels in the model originated from data developed by the USEPA, and were refined using a standard "acoustical usage factor" to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during the project (U.S. Department of Transportation 2006). For the purposes of modeling, it was assumed that all construction would occur between the hours of 7 a.m. and 5 p.m. (normal working hours). Table 4.2 shows sound levels associated with the operation of typical heavy construction/ demolition equipment. The RCNM also calculates the  $L_{dn}$  noise level that would be generated by all equipment in Table 4-2 operating during a single day. This noise level estimate is conservative in that construction is typically phased, with different pieces of equipment being used on different days. For this project, a range of points were identified at varying distances from the edge of the project site.

**Table 4-2. Equipment Noise Levels**

| Distance From Site Edge (feet) | $L_{dn}$ (dBA) |
|--------------------------------|----------------|
| 100                            | 78             |
| 200                            | 72             |
| 300                            | 68             |
| 400                            | 66             |
| 500                            | 64             |

Source: US Department of Transportation 2006

As shown in Table 4-3, modeled data indicate that noise levels fall below 65 dB Ldn at less than 500 feet from the edge of the site.

**Table 4-3. Noise Levels at Varying Distances from Site Edge**

| Equipment                | $L_{\max}$ at 100 Feet (dBA) |
|--------------------------|------------------------------|
| Clam Shovel (Dropping)   | 81                           |
| Dozer                    | 81                           |
| Excavator                | 76                           |
| Dump Truck               | 75                           |
| Total (All Simultaneous) | 81                           |

Source: US Department of Transportation 2006

Construction noise would be noticeable in the immediate vicinity of the project sites because its characteristics are quite distinct from ambient noise currently experienced in the area. The effects

would be localized to the area immediately surrounding the project site. Within 500 feet of the project sites, construction noise would be below 65 dB L<sub>dn</sub>. Persons exposed to this are mostly construction workers on the site. Construction workers would be required to wear hearing protection, in accordance with Occupational Safety and Health Administration (OSHA) regulations.

As described in Section 3.2 *Noise*, the project site currently experiences ambient noise of between 45 to 55 dB L<sub>dn</sub>. These noise levels are compatible with the current land use in the Community Land Use Zone. The long-term acoustic environment and land use compatibility in the project site would not be changed by implementation of the Proposed Alternative. Noise would be temporary and would be expected to be limited to normal working hours. Direct impacts to workers are mitigated by hearing protection requirements. Cumulative impacts over a short time period would be the addition of construction noise to operational, maintenance, and industrial noise in the area, which is intermittent and within ambient noise levels, but would be temporary in duration. This increase in noise, as shown in Table 4-3, has a diminishing effect over distance. The location of the proposed lot is remote; it is more than 1,000 feet from the nearest residential area, and more than 800 feet from the nearest administrative building. Thus, construction noise would be experienced as ambient noise and no significant impacts from increases in noise are expected under the New Construction Alternative.

#### **4.2.2 Existing Lot Use Alternative**

Primary noise sources created by this proposed action would be transitory construction equipment associated with the installation of a security fence and lighting poles. This equipment would consist of an excavator, a cement truck and various smaller construction vehicles. Similar assumptions to those used in the previous section are still applied; construction noise is presumed to occur between the hours of 7am and 5pm, and Table 4-3 still applies. The area surrounding the Football Field Lot is at the south west end of the administrative corridor of Fairchild AFB. It is more than 650 feet from the nearest residential setting. It lies more than 200 feet from the Base Theater, and more than 400 feet from the next nearest administrative building. The long-term acoustic environment and land use compatibility in the project site would not be changed by implementation of the Proposed Alternative. Noise would be temporary and would be expected to be limited to normal working hours. Direct impacts to workers are mitigated by hearing protection requirements. Cumulative impacts over a short time period would be the addition of construction noise to typical ambient noise in the area, which is slightly above ambient noise levels, but would be temporary in duration. With the distances involved, the noise would be comparable to or less than the noise level of kitchen appliances. Short-term impacts would be minimal and experienced intermittently and for a very short period of time. Long term, there would be no impacts to noise level in the community.

#### **4.2.3 No Action Alternative**

For the No Action Alternative, no construction or other activities would occur and no change in noise level would be experienced. No significant impacts to noise levels would occur under the No Action Alternative.

### **4.3 WATER RESOURCES**

Generally, impacts can be avoided or minimized if proper construction techniques, erosion control measures, and structural engineering designs are incorporated into project development. Analysis of potential impacts to water resources typically includes identification and description of resources that could potentially be affected, examination of the potential effects that an action may have on the resource, assessment of the significance of potential impacts, and provision of mitigation measures in the event that potentially significant impacts are identified.

Criteria for evaluating impacts related to water resources associated with the Proposed Alternatives are water availability, water quality, and adherence to applicable regulations. Impacts are measured by the potential to reduce water availability to existing users, endanger public health or safety by creating or worsening health hazards or safety conditions, or violate laws or regulations adopted to protect or manage water resources. An impact to water resources would be significant if it would: 1) reduce water availability to, or interfere with the supply of, existing users; 2) create or contribute to overdraft of groundwater basins or exceed safe annual yield of water supply sources; 3) adversely affect water quality or endanger public health by creating or worsening adverse health hazard conditions; 4) threaten or damage unique hydrologic characteristics such as wetland hydrology or water quality; or 5) violate established laws or regulations that have been adopted to protect or manage water resources of an area.

#### **4.3.1 New Construction Alternative**

##### ***Wetlands***

There are no wetlands in or around the project area. The wetlands located on Fairchild AFB are located mainly on the southern region of the base.

##### ***Surface Water and Storm Water***

Potential short term adverse impacts could occur to water quality as result of runoff from bare soil areas. Impacts would remain within the project area or immediately adjacent because of the lack of surface drainage ways in the project area. Impacts are easily avoided or minimized by working in the dry season and maintenance of sediment catchment devices, such as silt fences between the project area and drainage ditches, depressions, and wetland buffers. Attention to successful vegetation re-establishment immediately after project completion further reduces the time bare soil from ground disturbance is exposed to erosive forces. This would be accomplished by hydro-seeding on a fresh seedbed prior to the onset of the wet season and well within the growing season. With best management practices as described, no significant impacts are expected to occur from the New Construction Alternative.

The only cumulative effects to occur in the ROI will be the addition of some additional runoff to the nearby isolated drainage ditch and low lying area. This will have no negative impacts to the watershed because lack of surface water connection from the project area to the rest of the watershed. There is no net benefit or negative consequence to water quantity. The size of the contributing area of the project area is small relative to the watershed size. It is also small compared to neighboring impervious surfaces (the existing RV Storage Lot); it represents 14% of the existing lot's size by area. Most of the runoff water will infiltrate into the ground as it is vegetated with well-drained sandy loam. Some water storage exists within ¼-mile for evaporation and infiltration in a drainage ditch to the north and a low-lying open area to the southwest. The low lying area typically ponds during the wet season due to a high water table and runoff from other impervious surfaces within a ¼-mile. It is expected, due to the small size of the lot and the high permeability of the soils, that the addition of the proposed lot will not make a significant increase to ponded water. (Shelton)

##### ***Groundwater***

Short term and long term impacts to water quality could occur from unanticipated oil spills from heavy equipment. Potential for impacts would be minimized by rapid clean up of oil spills, checking equipment for leaks, avoiding working in groundwater, and avoidance of wetland areas and wetland buffers. No significant impact is expected to water quality or wetlands as a result of the New

Construction Alternative. No significant impact is expected to water quantity from this Alternative; the project area size is too small to have an impact within the ROI.

#### **4.3.2 Existing Lot Use Alternative**

Under the Existing Lot Use Alternative, no additional impervious surface would be created. There would be no change in existing environmental impacts to this resource. Runoff from existing impervious surfaces would continue to contribute more rapid runoff with less dispersed filtration of vegetation to filter sediment. Considering the relative surface area in impervious surface versus pervious surface, the existing condition does not pose a significant impact to water quality or quantity. Overall, no significant impacts to water resources are expected under the Existing Lot Use Alternative.

#### **4.3.3 No Action Alternative**

Under the No Action alternative, no changes would occur. There would be no change in existing environmental impacts to this resource. Overall, no significant impacts to water resources are expected under the No Action alternative.

### **4.4 GEOLOGIC RESOURCES**

Analysis of potential impacts to geologic resources includes: impacts to long term soil productivity, unique landforms, and mineral resources. Evaluation of impacts is based upon actions having significant impact to long term scientific benefit and/or historical economic or recreational values.

#### **4.4.1 New Construction Alternative**

The New Construction Alternative replaces mostly undisturbed land with improved, impervious pavements. The area covered by the pavements will have negative impacts, since the ground will be disturbed and improved to a depth of between one-half to two and one-half feet. In the long term, soil productivity would be harmed. To be restored, new topsoil and vegetation would need to be imported to re-establish the soil biological functions. The area affected is small compared to the surrounding area in the ROI which is natural and undisturbed, and would not have any significant negative impacts on the natural environment.

No geologic or mineral resources of significant economic, scientific, historic or recreational value occur within the project area. The Proposed Action would not disturb any geologic or mineral resources. No direct, indirect or cumulative impact would occur.

The landforms in the area were previously unaltered; therefore the cut, fill, and improvement of the project area would destroy the natural landform in that area. There is abundant undisturbed space surrounding the project area where the natural landform occurs, so negative impacts to landform are negligible.

#### **4.4.2 Existing Lot Use Alternative**

The Existing Lot Use Alternative involves minimal disturbance of the ground. The addition of a security fence along the perimeter of an existing parking lot expands the improved footprint of the parking lot by a negligible amount. No significant impacts to geologic resources are expected for the Existing Lot Use Alternative.

#### **4.4.3 No Action Alternative**

Under the No Action alternative, disturbance of the ground would not occur. No significant impacts are expected to geologic resources under the No Action alternative.

## 4.5 BIOLOGICAL RESOURCES

Evaluation of potential impacts to biological resources includes the importance of the resource to legal, commercial, recreational, ecological, or scientific interests, the rarity of the species or habitat, the sensitivity of the resource to the proposed activities, and the duration of the impact. The greater impacts are considered to be those affecting endangered species or habitats over a longer period of time or a larger area.

### 4.5.1 New Construction Alternative

The biological resources existing in the project area of this alternative are not considered endangered or priority species or habitats. These resources are comprised of open, native grasslands that are mowed and sprayed with herbicides. The wildlife occurring in the project area is likely to consist of burrowing rodents as previously described in section 3.5, *Biological Resources*, and any species of concern on Fairchild AFB are either not likely to occur in this habitat or have not been sighted on Fairchild AFB in recent years, with the exception of the American badger. This species is not federally protected and has a thriving population on Fairchild AFB. Therefore the Proposed Alternative will have no significant impact on this population.

The construction of a small parking lot in this area would diminish the naturally occurring habitat by a small amount (about 4.3%), but would leave about 43 acres in the ROI as open, undisturbed habitat. The proposed parking lot is also sited over a small gravel road, which has occasional human activity. This already present disturbance of the natural habitat indicates that the impacts of the proposed action are not significant. Cumulative impacts would occur if the RV Storage Lot programs an additional parking lot in the area. If the parking lot is of a similar size, then the affected area would remain minimal (less than 5% by area) and cause no significant impacts to occur to the biological resources in the ROI.

### 4.5.2 Existing Lot Use Alternative

Under the Existing Lot Use Alternative, the footprint of the existing parking lots would not be expanded. Human activity in the area would not increase, and therefore there would be no positive or negative impacts to the habitats and wildlife in the respective areas of the proposed parking lots.

### 4.5.3 No Action Alternative

Under the No Action alternative, demolition of facilities would not occur. No significant impacts to biological resources are expected under the No Action alternative.

## 4.6 CULTURAL RESOURCES

A number of federal regulations and guidelines have been established for the management of cultural resources. Section 106 of the NHPA, as amended, requires federal agencies to take into account the effects of their undertakings on historic properties. Historic properties are cultural resources that are listed in, or eligible for listing in, the NRHP. Eligibility evaluation is the process by which resources are assessed relative to NRHP significance criteria for scientific or historic research, for the general public, and for traditional cultural groups. Under federal law, impacts to cultural resources may be considered adverse if the resources have been determined eligible for listing in the NRHP or have significance for Native American groups.

Analysis of potential impacts to cultural resources considers both direct and indirect impacts. Direct impacts may occur by physically altering, damaging, or destroying all or part of a resource; altering characteristics of the surrounding environment that contribute to the resource's significance; introducing visual or audible elements that are out of character with the property or alter its setting; or neglecting the resource to the extent that it deteriorates or is destroyed. Direct impacts are assessed by identifying the types and locations of proposed activity and determining the exact location of cultural

resources that could be affected. Indirect impacts result primarily from the effects of project-induced population increases.

#### **4.6.1 New Construction Alternative**

Under the New Construction Alternative, a new facility would be constructed in an area that has been identified by the Fairchild AFB Cultural Resource Manager as having no likely historical significance to Washington State or the Native American Tribes. The project area is in a non-visible part of the base and falls in the community land use zone. No facilities or areas of interest to the Washington SHPO are located nearby. The proposed action would cause no increase in the daily traffic in the area as it is being used for storage. Thus, it is expected to have no direct or indirect impacts on cultural resources.

#### **4.6.2 Existing Lot Use Alternative**

The parking lots that have been proposed for use under the Existing Lot Use Alternative are not considered historic or culturally significant. Neither the Football Field parking lot nor the south side parking lot has any historically significant facilities nearby. The use of the parking lots as storage should create no appreciable increase in traffic to or from the area. Thus, no direct or indirect impacts are expected to any known historical or cultural sites.

#### **4.6.3 No Action Alternative**

Under the No Action alternative, there would be no construction or repurposing activities. No significant impacts to cultural resources are expected under the No Action alternative.

### **4.7 INFRASTRUCTURE AND UTILITIES**

Effects on infrastructure are evaluated based on their potential for disruption or improvement of existing levels of service and additional needs for energy, water, sewer, wastewater, and transportation.

#### **4.7.1 New Construction Alternative**

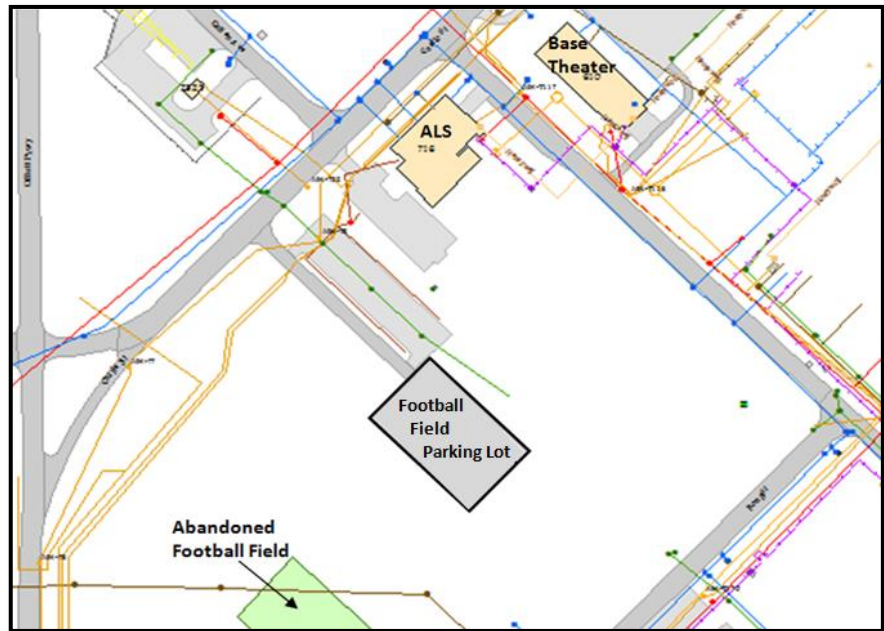
Under the New Construction Alternative, the potential for disruption of a fuel line exists. The project is designed to have two access ramps from the existing RV Storage Lot to the proposed new storage lot. These access roads cross a buried fuel line (See Figure 2-1). The combined width of the pavement that will cover the fuel line is about 37 feet. The siting of the new parking lot does not cover the gas line. However, during construction the possibility of disrupting the fuel line with construction equipment exists. The contractor who would be awarded this proposed project would be notified duly of the location of this line. For the short term, there is no significant impact to the fuel line if proper care is taken to avoid it during construction. Over the long term, the asphalt covering the fuel line is minimal and will not have significant impacts on access to the same.

The proposed action in this alternative will also cover over a small gravel road, and the project makes no provisions for rerouting the path, which provides access around the existing storage lot to the nearby above ground jet fuel storage tanks. This action degrades the level of service of this access path, but it does not cut off access entirely, as the path forms part of a loop. The base Resource Prevention/ Crime Prevention Manager and the Security Forces Operations Flight (S3O) have reviewed and approved the location of the parking lot over the access road.

#### 4.7.2 Existing Lot Use Alternative

In the existing lots, consideration of current use of the lot and impact on future levels of service of parking for the surrounding facilities was taken. Some consideration of buried utilities should also be made since a security fence would be installed around the perimeter of the selected lot and construction may uncover or damage existing utilities.

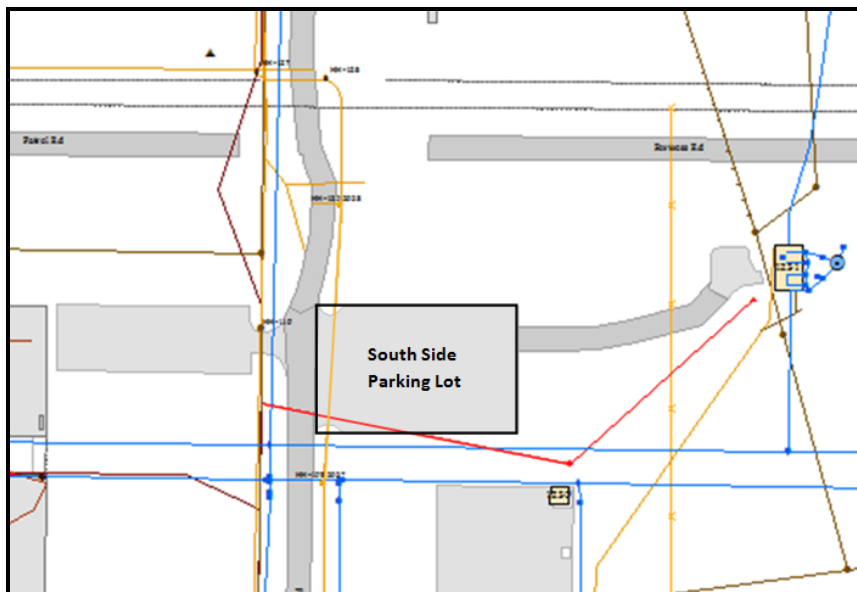
The Football Field Parking Lot has primarily been used as parking for the nearby football field to the southwest. The football field is being moved to another part of the base and is being torn out. The majority of the time, the lot remains vacant.



**Figure 4-1. Football Field Parking Lot Infrastructure and Utilities**

If this alternative is selected and carried out, no significant impacts are expected.

The buried utilities surrounding the Football Field Parking Lot consist of a storm sewer drain adjacent to the lot on the Northeast side, as shown in Figure 4-1. The installation of a security fence on the parking lot's perimeter would not cause damage to the storm sewer line. No significant impacts to the storm sewer utility are expected from this proposed action.



**Figure 4-2. South Side Parking Lot Infrastructure and Utilities**

The South Side Parking Lot has several infrastructure and utilities considerations, including access to the Water Pump Station and Tank to the east, and buried utilities which might be disturbed. The lot itself was used in the past as parking for the Entry Control Point (ECP) to the historical Weapons Storage Area (WSA). Today, the ECP no longer exists, and the WSA has lost most of its mission, and been renamed the Munitions Storage Area (MSA). The MSA is currently under plans to "right-size", thus demolishing many of its

facilities. The Proposed Parking lot is no longer in use. Its only function is to provide access to the Water Pump Station and Tank along an access road as seen in Figure 4-2. If this alternative were to be selected, a new access path from Fortress Road to the Water Pump Station and Tank would need to be

constructed. If this were constructed, then there will be no significant impacts to the level of service of the Water Pump Station and Tank.

The buried utilities that are of concern in the project area include a communications line running north to south along the western end of the lot and an electrical line running diagonally across the southwestern corner of the lot. The contractor who would be awarded this proposed project would be notified duly of the location of these lines. No significant impacts to these utilities would occur.

#### 4.7.3 No Action Alternative

All Fairchild AFB infrastructure conditions would remain the same as existing. No significant impacts to infrastructure and utilities are expected under the No Action alternative.

### 4.8 LAND USE RESOURCES

The methodology to assess impacts on individual land uses requires identifying those uses, as well as affected land use planning and control policies and regulations, and determining the degree to which they would be affected by the proposal.

The Fairchild AFB General Plan identifies 12 different land uses which are assigned to facilities and their grounds. The Base General Plan is supported by a 20 year Long Range Development Plan, which groups these land uses into five major Land Use Zones, or specified areas on base used in planning the development of Fairchild AFB. These zones are identified as the Flight Line (split into Airfield Operations and Maintenance), Industrial (East and West), Administrative, Community (Commercial and Service), and Tenant Units. Housing is excluded as it is privatized.

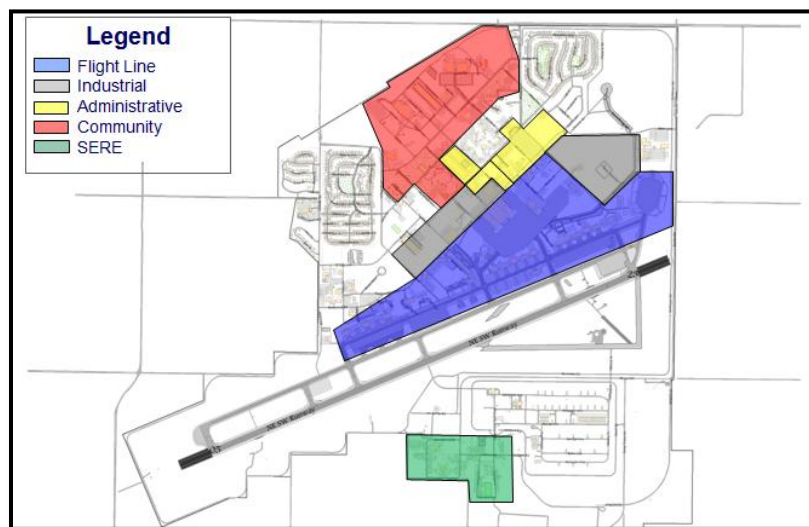
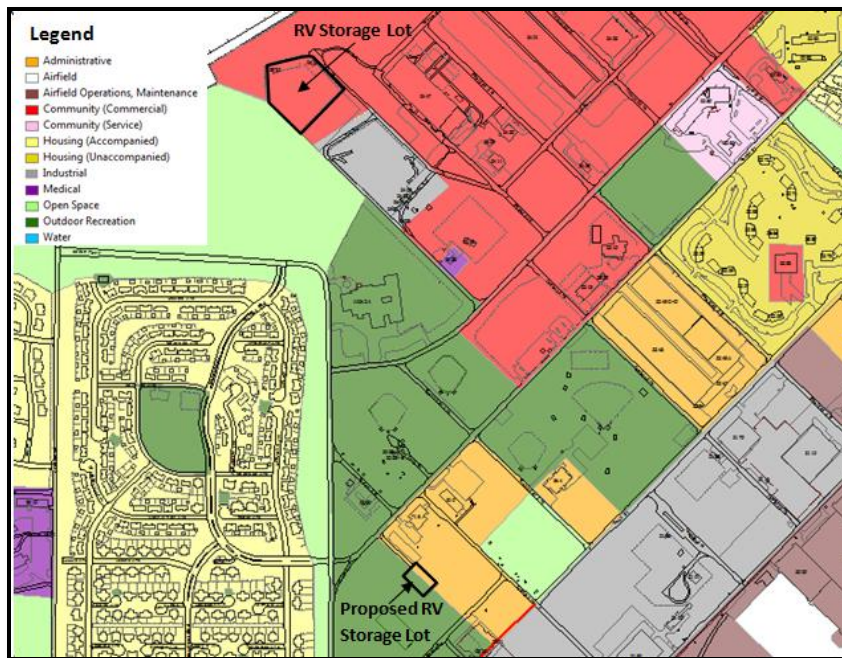


Figure 4-3. Fairchild AFB Land Use Zones

#### 4.8.1 New Construction Alternative

The existing RV Storage Lot lies in the Community-Commercial Land Use Zone of Fairchild AFB. The construction of a new storage lot adjacent to the existing one would also fall in the Community Zone. The placement of an RV storage lot in the Community-Commercial Land Use Zone of the base is consistent with that Land Use Zone, according to the Fairchild AFB Community Planner. Thus, no negative impacts to the land use planning of the base would occur.

#### 4.8.2 Existing Lot Use Alternative



**Figure 4-4. Land Use of Football Field Parking Lot**

The use of the proposed existing lots for RV Storage would classify them as Community-Commercial Land Use.

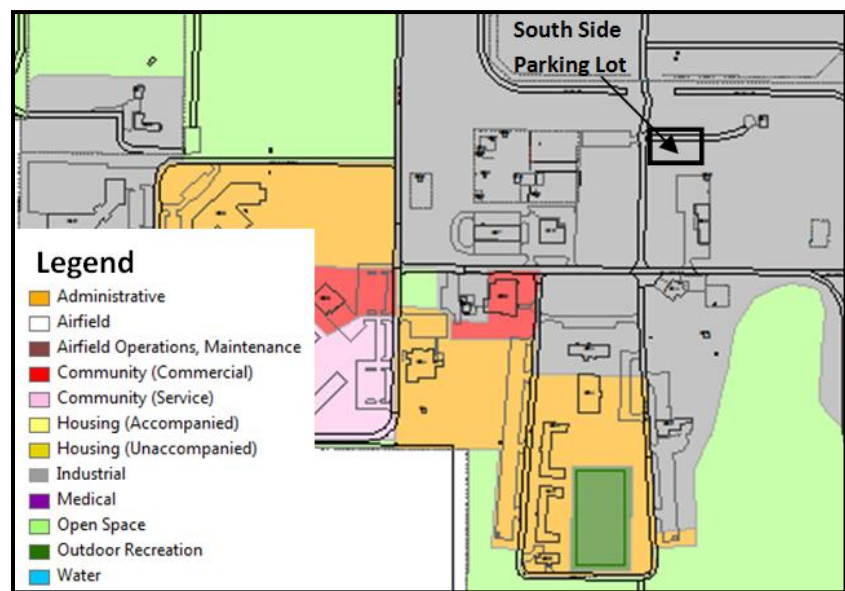
The Football Field Parking Lot lies in a part of the base not covered by a major Land Use Zone, but the lot is currently labeled Recreational Services and Administrative mixed land use. Its reclassification puts it outside the Community Land Use Zone.

However, as Figure 4-4 shows, it lies close to the designated Community Zone, as do some other community functions. The placement of an RV Storage Lot in

proximity to the ALS is a dissimilar land use and moreover could be seen as an eyesore in that area. This represents a negative impact to base planning, which is working toward land use consolidation, and to the ALS, aesthetically speaking.

The South Side Parking Lot lies on the edge of the SERE Campus (identified as the fifth major Land Use Zone). It is just south of the old entry gate into the MSA. It is classified as industrial land use, and is otherwise nearest to the SERE commercial land use.

This site proposal is inconsistent with current land use planning, but the impact is low. The area surrounding the proposed site is not high-traffic or high-use. The lot itself, however, while being out of the way and close to its own community land use, is in an inconvenient location far from housing districts. Its use is for RV Storage, and users typically access the storage from their home for recreational use. Since this proposed site is in an inconsistent land use, and far from related land uses, there would be negative impacts to land use planning in this alternative.



**Figure 4-5. Land Use of South Side Parking Lot**

#### **4.8.3 No Action Alternative**

Under the No Action Alternative, no construction or change in land use would occur. There would be no positive or negative impact to land use.

### **4.9 SAFETY**

Impacts to safety are assessed according to the potential to increase or decrease safety risks to personnel, the public, and property.

#### **4.9.1 New Construction Alternative**

To assess relative risk associated with this proposal, it was assumed that the industrial classifications of workers involved are the Construction Trades. Based on Department of Labor data for calendar year 2006, the probability of a fatal injury was 10.8 per year out of 100,000 employed (U.S. Department of Labor, Bureau of Labor Statistics 2008). Although DoD guidelines for assessing risk hazards would categorize the hazard category as “catastrophic” (because a fatality would be involved), the expected frequency of the occurrence would be considered “remote” (DoD 1993). Strict adherence to all applicable occupational safety requirements including the requirement for contractor's to submit a site specific safety and health plan would further minimize the relatively low risk associated with these construction activities.

In the event that anticipated hazards are discovered during the project, contractual provisions are included for projects involving ground disturbance and demolition of older structures requiring contractors to cease work and report discovery of unknown, known, or suspicious hazards.

The operation of the parking lot poses the risk associated with driving and parking large vehicles (vehicles up to 40 feet in length). The risk will be mitigated through proper design of the parking lot for turning radii, as well as the licensing system of the Department of Motor Vehicles of the several States for the operation of vehicles. The lot is a storage lot that expects little traffic. The risks associated with the operation of this parking lot are therefore very low.

Thus, no significant impacts to project workers, the environment, employees at Fairchild AFB, or the public at large are expected under the New Construction Alternative.

#### **4.9.2 Existing Lot Use Alternative**

The activities associated with this proposed action include installation of a security fence and security lighting, as well as the operation of a storage lot. As discussed in the previous section, no significant impacts to the safety of project workers, the environment, employees at Fairchild AFB, of the public are expected under the Existing Lot Use Alternative.

#### **4.9.3 No Action Alternative**

No change occurs in the existing work environment for either Fairchild AFB personnel or construction workers. No significant impacts to human safety are expected under the No Action alternative.

### **4.10 HAZARDOUS MATERIALS AND WASTE MANAGEMENT**

This section addresses the potential impacts caused by hazardous materials and waste management practices and the impacts of existing contaminated sites (e.g., ERP or Military Munitions Response Program) on the Proposed Action.

The qualitative and quantitative assessment of impacts from hazardous materials and solid waste management focuses on how and to what degree the alternatives affect hazardous materials usage and

management, hazardous waste generation and management, and waste disposal. A substantial increase in the quantity or toxicity of hazardous substances used or generated would be considered potentially significant. Significant impacts could result if a substantial increase in human health risk or environmental exposure was generated at a level that could not be mitigated to acceptable standards.

Regulatory standards and guidelines have been applied in evaluating the potential impacts that may be caused by hazardous materials and wastes. The following criteria were used to identify potential impacts:

- Generation of 100 kilograms (or more) of hazardous waste or 1 kilogram (or more) of an acutely hazardous waste in a calendar month, resulting in increased regulatory requirements.
- A spill or release of a reportable quantity of a hazardous substance as defined by the USEPA in 40 CFR Part 302.
- Manufacturing, use, or storage of a compound that requires notifying the pertinent regulatory agency according to Emergency Planning and Community Right-to-Know Act.
- Exposure of the environment or public to any hazardous material and/or waste through release or disposal practices.

#### **4.10.1 New Construction Alternative**

##### ***Hazardous Materials***

Construction of a new parking lot may require the use of hazardous materials by contractor personnel for equipment maintenance. Substances used may include, but are not limited to, paint, paint thinners, gasoline, diesel, oil and lubricants. In accordance with the Base's Hazardous Materials Pharmacy (HAZMART) procedure, all hazardous substances brought on to the Base must be reported and copies of Material Safety Data Sheets must be provided to the Base and maintained on the project site. Contractors would be required to comply with federal, state, and local environmental laws.

All hazardous materials would be handled, stored, and disposed of in accordance with federal, state, and local regulations and laws. Permits for handling and disposal of hazardous material are the responsibility of the contractor. Hazardous materials would not be stored on Base. All hazardous materials used at the project site would be removed daily. Only quantities of hazardous materials required to carry out the work for the day would be permitted on site.

##### ***Hazardous Waste***

No hazardous waste is expected to be found in the project area. If any hazardous waste is found during construction, the contractor would cease work and report any unidentified and suspected hazardous materials. If environmental or safety hazards are identified, the following regulations would apply:

- *Asbestos Removal and Disposal.* Upon classification as friable or non-friable, all waste ACM should be contained, disposed of and transported in accordance with the Washington state regulations governing Transportation of Hazardous Materials.
- *Lead-Based Paint Removal and Disposal.* The proposed project should comply with the U.S. Department of Labor, OSHA regulations.
- Disposal and handling of other hazards and soil contaminants would be on a case by case basis as instructed and approved by 92 Civil Engineering.

Generations of appreciable amounts of hazardous wastes by the contractor during construction are not anticipated and proper handling required by AF policies and regulatory agencies deem that no significant adverse environmental consequences are expected. In the event of fuel spillage during construction, the contractor would be responsible for its containment, clean up, and related disposal costs. The contractor would have sufficient spill supplies readily available on the pumping vehicle and/or

at the site to contain any spillage. In the event of a contractor related release, the contractor would immediately notify the 92nd Civil Engineering Office and take appropriate actions to correct its cause and prevent future occurrences.

### ***Environmental Restoration Program***

There are no ERP Sites identified within the project area.

### ***Non-Hazardous Solid Waste***

No appreciable amounts of solid waste are expected as a result of the construction activities proposed under this alternative.

Best practices to assure human safety and to avoid adverse environmental effects from hazardous materials and waste and non-hazardous waste would be applied throughout the project. Practices and actions would be in accordance with all state and federal regulations. No significant direct, indirect, or cumulative effects would occur under these measures. Under a worst case scenario where measures are not followed, there is risk of a significant direct effect to human health and safety and adverse environmental impact. Project monitoring would provide assurance that all regulations and safety procedures are understood and followed. There is no reason to anticipate there would be a worse case situation as a result of this Proposed Action.

Thus, no significant impacts from hazardous materials are expected under the Proposed Action.

#### **4.10.2 Existing Lot Use Alternative**

Under the Existing Lot Use Alternative, the activities are limited to installation of a security fence, lighting, and re-striping the pavement. The equipment used for these activities contains fuels and oils as well as paint and paint thinners. The HAZMART procedures for hazardous materials would apply and contractors would be responsible for the handling and use, storage, removal, and cleanup if necessary, of any hazardous materials brought onto base for the project.

#### **4.10.3 No Action Alternative**

Under the No Action alternative, construction would not occur. No significant impacts from handling or disposing of hazardous materials are expected under the No Action Alternative.

### **4.11 ENVIRONMENTAL JUSTICE**

In order to assess environmental justice for populations of concern (E.O. 12898 and E.O. 13045), community and county figures are compared to regional and state demographics to determine proportional differences. Fairchild AFB employs a disproportionate share of minorities compared with Spokane County population. And typically, contract workers reflect the average ratio of minorities in the general population of Spokane County if not slightly less. The nearest concentration of low income housing is about 2 miles away in Airway Heights and to the south 3-5 miles near Medical Lake.

#### **4.11.1 New Construction Alternative**

This alternative, including mitigation measures, is not expected to create significantly adverse environmental or health impacts to humans, in the short or long term, directly, indirectly, or cumulatively. Distance from the project area to residential or industrial areas where there are concentrations of minorities, low income residents, or children (such as schools or daycares), is far enough removed to reduce interactions that would place human health at risk. The area will be surrounded by construction fencing to keep out unauthorized personnel. Thus, no significant impacts to populations of concern (E.O. 12898 and E.O. 13045) are expected under the New Construction Alternative.

#### **4.11.2 Existing Lot Use Alternative**

The Existing Lot Use Alternative has two proposed sites, of which distance to populations of concern as described in *4.11.1 New Construction Alternative*, is far enough removed to reduce interactions that would place human health at risk. Thus, no significant impacts to populations of concern (E.O. 12898 and E.O. 13045) are expected under the Existing Lot Use Alternative.

#### **4.11.3 No Action Alternative**

Under the No Action Alternative, construction activities would not occur. Thus, no significant impacts to populations of concern are expected.

## **5.0 CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

### **5.1 CUMULATIVE EFFECTS**

This section provides (1) a definition of cumulative effects, (2) a description of past, present, and reasonably foreseeable actions relevant to cumulative effects, (3) an assessment of the nature of interaction of the Proposed Action and alternatives with other actions, and (4) an evaluation of cumulative effects potentially resulting from these interactions.

#### **5.1.1 Definition of 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 1508.7). Recent CEQ guidance in *Considering Cumulative Effects* affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the proposed action and alternatives. The scope must consider geographic and temporal overlaps and must also evaluate the nature of interactions among these actions.

Cumulative effects are most likely to arise when a relationship or synergism exists between a proposed action and alternatives and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in close proximity to the proposed action would be expected to have more potential for a relationship than actions that may be geographically separated. Similarly, actions that coincide, even partially, in time would tend to offer a higher potential for cumulative effects.

In this EA, an effort has been made to identify all actions that are being considered and that are in the planning phase at this time. To the extent that details regarding such actions exist and the actions have a potential to interact with the Proposed Action in this EA, these actions are included in this cumulative analysis. This approach enables decision makers to have the most current information available so that they can evaluate the environmental consequences of the Proposed Action.

The potential adverse impacts to resources of interest addressed in this EA are short term and minor; it is anticipated that planned mitigation measures would minimize unforeseen impacts and minimize further those anticipated.

### 5.1.2 Past, Present, and Proposed Actions Relevant to the Proposed Action and Alternatives

Fairchild AFB is an active military installation that undergoes continuous change in mission and training requirements. The RV Storage Lot is located in a semi-isolated area on the north of the Installation and is in a large area of unimproved lands. Thus most of the activities occurring on base have little interaction with the RV Storage Lot. The following activities are ongoing or planned in the future at the Installation and share, for some resources, a common ROI with the Proposed Action. No other past or proposed future event has effects that are relevant to the project area or its ROI.

- Repair of the Base Exchange Sales Facility Roof (B2465), slated for FY12 construction, approx. 0.5 miles from the project area.
- Repair of the walking paths on North side of Base, 250 feet from project area.
- Repair of the Parking Lots B2464& B2465 Rear Lots, slated for FY12 construction, approx. 0.5 miles from the project area.
- Addition of Public Restroom and Shower Facilities at the FamCamp Support Facility (B326), slated for construction in FY12, approx. 0.75 miles from the project area.
- Repair and Expansion of the Pavement on Linden Ave, from Eaker to Hansell, slated for construction in FY12, approx. 1 mile from the project area.
- Construction of Running Track and Ancillary Facilities/Latrines (2313), slated for FY12, less than 0.5 miles from the project area.

### 5.1.3 Analysis of Cumulative Effects

The New Construction Alternative covers a project area less than 2 acres. The duration of this project is 2 months of physical work. The project will be conducted in an area that has suffered little or no historical disturbance. The New Construction Alternative will disturb this land, but it is a relatively miniscule area compared to the surrounding undisturbed land. The project overall poses relatively insignificant potential impact to air and water resources, land use, geologic resources, and biological resources. When added to ongoing or future activities, the New Construction Alternative represents an insignificant if not immeasurable effect over a very short duration to overall impact of concurrent activities.

The activities listed in Section 5.1.2, which will take place at the same time or surrounding the New Construction Alternative, could result in some fugitive dust in the atmosphere, mitigated by dust control measures, as well as increased construction traffic. The analysis in Section 4 demonstrates there is a large margin for increase in dust pollutants prior to reaching air quality thresholds within the region which makes for an adverse cumulative impact unlikely. Other pollutants were identified as falling well below the 10% increase thresholds over average background levels. The potential increase in demand for capacity for transportation systems to haul and disposal of materials, both hazardous and non-hazardous, from concurrent construction of a parking lot and other projected construction activities, is minor as many of these activities do not require large amounts of materials at any one time. There are no identified known concerns with regard to landfill capacity in the area.

No cumulative impacts either concurrent or over the long term or over a large scale would occur to surface waters on Fairchild Air Force Base, since the concurrent projects that feed into the same drainage basin as the New Construction Alternative (repair of the Base Exchange Sales Facility roof, repair of walking paths on the North side of the Base, and repair of the rear parking lots of B2464 and B2465) do not increase surface runoff of water from existing conditions. Any unforeseen drainage issues will be mitigated by Storm Water Pollution Prevention Plans (SWPPPs) required for construction projects.

Evaluation of noise levels of individual projects suggest that cumulatively, several projects would remain under thresholds established for human health and safety.

The General Installation Plan assures land uses are evaluated on an Installation scale to avoid long term conflict in land use and to assure responsible natural resource management. The land base has about 700 acres that are currently undeveloped and are classified as "*open area*". Of this open area, 212 acres are wetland area which leaves about 488 acres available for training and infrastructure development.

The Existing Lot Use Alternative is expected to have immeasurable environmental impacts, which, when combined with the concurrent planned projects, would have negligible impacts to the environment.

The No Action Alternative represents status quo conditions and would not represent any change from the existing environment.

## **5.2 UNAVOIDABLE ADVERSE IMPACTS**

Analysis discussion in Section 4.0 determines that no unavoidable adverse impacts would occur as a result of the Proposed Action.

## **5.3 RELATIONSHIP BETWEEN SHORT-TERM USES AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

Short-term effects would be those associated with the activities during construction. None of the alternatives presented have the effect of enhancing long-term environmental productivity, since no lands would be returned to a natural state.

## **5.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

NEPA requires that environmental analysis include identification of "...any irreversible and irretrievable commitments 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 that the uses of these resources 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 site). The use of energy, labor, and fuel for operation of equipment would represent an irretrievable commitment of resources.

For the Proposed Action, most resource commitments are neither irreversible nor irretrievable. The Proposed Action would use gasoline and diesel fuel in vehicles and heavy equipment during construction. None of these activities would be expected to significantly decrease the availability of minerals or petroleum resources.

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## 7.0 LIST OF PREPARERS

Jessica Wood, 2d LT. Deputy Element Chief, Asset Optimization, Fairchild AFB, Spokane, WA. Years of experience: 4

Jonathan Wald. Chief, Asset Optimization. Fairchild AFB, Spokane, WA. Years of experience: 10

## 8.0 LIST OF CONTACTS AND PERSONS CONSULTED AND/OR PROVIDED COPIES

The following Fairchild AFB personnel were consulted during the preparation of this Environmental Assessment:

- Kristin Nester, Chief, Natural Resources Asset Manager, 92 Civil Engineering Squadron, Fairchild AFB
- Mary Baker, Real Property Officer, 92 Civil Engineering Squadron, Fairchild AFB
- Bill Shelton, Water Resources Manager, 92 Civil Engineering Squadron, Fairchild AFB
- Steve Selser, Natural Resource Program Manager, 92 Civil Engineering Squadron, Fairchild AFB
- Joshua Potter, Air Quality Manager, 92 Civil Engineering Squadron, Fairchild AFB
- Marc Connally, ERP Program Manager, 92 Civil Engineering Squadron, Fairchild AFB
- Lee Paul and Staff, Programs Flight, 92 Civil Engineering Squadron, Fairchild AFB

The following agencies/persons were provided notification or copies of this EA for review and comment:

U.S. Fish and Wildlife Service  
Eastern Washington Field Office  
11101 East Montgomery Drive  
Spokane, Washington 99206

WA State Department of Fish and Wildlife  
2315 North Discovery Place  
Spokane Valley, WA 99216

WA State Department of Ecology  
N. 4601 Monroe  
Spokane, WA 99205-3400

State Historic Preservation Office, Suite 106  
1063 South Capitol Way  
Olympia, WA 98501

A 30 day review public review period was provided. A public notice was published on the Fairchild AFB website and made available to the *Spokesman Review*. The EA was available for public review at the Fairchild AFB Library and electronically, by request.

## Appendix A: Correspondence

### WOOD, JESSICA R 2Lt USAF AMC 92 CES/CEAO

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From: SMITH, DAMIAN M NF-04 USAF AMC 92 FSS/FSCO  
Sent: Friday, July 22, 2011 9:38 AM  
To: WOOD, JESSICA R 2Lt USAF AMC 92 CES/CEAO  
Subject: RE: RV Storage Lot EA Questions

Lt Wood,

Here is what I can give you at this time. I'll call Jonathan and explain later. Is he in or off today? Here goes ...

Currently have 211 spaces

Current waiting list of ~35 people

Would like to have 70 new spaces in total Last FY storage lot generated \$43K net profit The 30 proposed new spaces would all be the 40' range which are \$30/month, i.e. 30 spaces x \$30/month x 12 months = \$10.8K annually.

Damian Smith, CIV

Director, Fairchild AFB Outdoor Recreation

Comm: 509-247-5121

DSN: 657-5121

-----Original Message-----

From: WOOD, JESSICA R 2Lt USAF AMC 92 CES/CEAO  
Sent: Friday, July 22, 2011 9:08 AM  
To: SMITH, DAMIAN M NF-04 USAF AMC 92 FSS/FSCO  
Cc: WALD, JONATHAN A GS-12 USAF AMC 92 CES/CEAO  
Subject: RV Storage Lot EA Questions

Damian,

I am working the Environmental Assessment for the RV Parking Lot expansion. I would like to get some specific information for the assessment, as well as the answers to the questions Jonathan Wald sent you. The information I need is listed below.

- Current # of parking spaces in RV Lot
- Current # on waiting list
- # of add'l spaces needed for ideal business case (how many more spaces do you need?)
- Current annual revenues of lot
- Increase in revenue of the 30 added spaces in the project (\$\$/space/year)

Thank you.

V/R,

JESSICA R. WOOD, 2nd Lt, USAF  
Deputy Element Chief, CEOA  
92 Civil Engineering Squadron  
Comm: 509-247-3288

## **FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

### **ENVIRONMENTAL ASSESSMENT (EA) OF EXPANSION OF RV STORAGE LOT AT FAIRCHILD AIR FORCE BASE, WASHINGTON**

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#### **INTRODUCTION**

The 92 Air Refueling Wing has conducted an environmental assessment (EA) to document the environmental impacts associated with expanding the parking area of the RV Storage Lot located on Fairchild AFB. In response to this perceived need for more storage space of Recreational Vehicles (RVs) available to Airmen, their families, and civilians on Fairchild AFB, Recreational Services has proposed the construction of an additional parking lot adjacent to the existing RV Storage Lot. This proposed storage lot will have 70 additional spaces. The EA documented this proposal, as well as two alternative solutions, including the alternative to re-use an underutilized, existing lot (Existing Lot Use Alternative), and the No Action Alternative.

#### **PURPOSE AND NEED FOR THE PROPOSED ACTION**

The purpose of this action is to provide more parking to the “RV Storage Lot”, run by Recreational Services. This service provides nearby parking of RVs for Airmen at Fairchild AFB at a lower rate than in the local area. It has an annual average waiting list of approximately 35 slots. The RV Storage Lot is located on the Northwest side of Fairchild AFB behind the Petroleum, Oil & Lubricants (POL) storage on POL Loop. There is space surrounding the lot that is unused, previously undeveloped, and in an out-of-the-way location. The addition of another parking lot in this area would provide space for the RVs on the waiting list and provide this service with additional revenue.

#### **DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

Recreation Services proposes to construct a 9460 square yard parking lot adjacent to the existing RV Parking Lot, with two entrances from the existing lot. This lot will accommodate 70 more 40-foot slips for RVs. It will be located on the southwest side of the existing lot. The proposed lot will be asphalt, with lighting along one side and a perimeter fence set up for security. This is the recommended alternative.

A second alternative is to secure an existing parking lot that is not being used as the overflow for the RV Storage Lot. This option will not require the addition of more pavements to Fairchild AFB and will be more cost effective. However, it will split the location of the RV Storage Lot, it will not provide as much space or revenue and it may be located in a visible place, inconsistent with the land-use guidance of the base and causing an eyesore on the base.

The final alternative, the no action alternative, will not add any additional parking lots to the RV Storage Lot.

#### **SUMMARY OF ANTICIPATED ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE PROPOSED ACTION**

The proposed and recommended alternative is the New Construction Alternative. The environmental effects of this action are summarized below.

Minor, short-term, direct adverse effects resulting from the construction of a new parking lot would be minimal. Air quality effects would be negligible, since pollutants would not cause or contribute to crossing conformity thresholds. Noise effects of construction would be minimal, though localized noise increases may temporarily disrupt Base personnel working in the few

nearby structures. Short-term adverse effects to water resources would be mitigated to insignificance during construction through the implementation of a Storm Water Pollution Prevention Plan (SWPPP). The disturbance of geological, biological, and cultural resources would be insignificant, as no significant geological resources, endangered species, or issues of cultural interest exist in or around the project area. There would be no significant short-term disturbance to infrastructure and utilities, since the parking lot was designed to avoid disturbing the fuel line that travels through the area. Safety and Occupational Health would face no significant impacts with the application of industrial safety standards. Hazardous Materials would be carefully controlled by the contractor and mitigated in case of release, such that there would be no significant negative impacts to the environment. This construction would cause a minor- short-term benefit to the socioeconomics of the local community due to construction employment and the purchase of local goods and services.

Minor, long-term direct adverse effects would be insignificant in general. There would be no effect on air quality, noise, biological or cultural resources in the long term. Water resources would experience an increase in storm water runoff due to the increase of impervious surface, which would infiltrate readily into the surrounding grassland, or runoff into a nearby drainage ditch. This is expected to be an insignificant effect to the local water resources. There are no wetlands or floodplains in or around the project area. The proposed action will have a minor effect on the infrastructure since it covers part of a gravel access path, but would not limit access to any facilities or assets, and which has been authorized by the appropriate Base officials.

Minor, long-term, direct beneficial effects of the proposed action are expected for land use resources, since the proposed project is consistent with base land use guidance. The construction would create a minor long-term socio-economic benefit to the community on Fairchild AFB through providing Recreational Vehicle storage at a lower price than can be found in the local area.

#### **PUBLIC REVIEW COORDINATION**

The public review of the draft EA was conducted from 2 November to 2 December, 2011. No comments from the public were received.

#### **FINDING OF NO SIGNIFICANT IMPACT**

I conclude that the environmental effects of the proposed installation development at Fairchild AFB are not significant, that preparation of an environmental impact statement is unnecessary, and that a finding of no significant impact is appropriate. The preparation of the EA is in accordance with NEPA, the regulations of the Council on Environmental Quality, and Title 32, Code of Federal Regulations Part 989, as amended.

**DANIELS.RONALD**  
**.ROY.1231507325**

Digitally signed by  
DANIELS.RONALD.ROY.1231507325  
DN: c=US, o=U.S. Government, ou=DoD,  
ou=PKI, ou=USAF,  
cn=DANIELS.RONALD.ROY.1231507325  
Date: 2011.12.06 07:03:26 -08'00'

**RONALD R. DANIELS**  
Deputy Base Civil Engineer, 92 CES

**6 Dec 2011**  
Date

Attachment: Environmental Assessment