
Final Environmental Assessment

**BRAC and GTA Construction and
Operation of Armed Forces
Reserve Center and Associated
Facilities in the Everett,
Washington, Area**



Prepared for

U.S. Army Reserve

Prepared by

U.S. Army Corps of Engineers, Mobile District

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**Environmental Assessment for BRAC and GTA Construction and Operation
of Armed Forces Reserve Center and Associated Facilities in the Everett,
Washington Area**

Prepared by:

**U.S. Army Corps of Engineers
Mobile District**



**Byron G. Jorns
Colonel, U.S. Army Corps of Engineers
Commanding**

31 Mar '09

Date

Reviewed by:

70th Regional Readiness Command



**Meline E. Skeldon
Environmental Program Manager**

1 April 2009

Date

Reviewed by:

88th Regional Support Command



**David L. Moore
Chief, Environmental Division**

3 April 2009

Date

Approved by:

88th Regional Support Command



**L. Ralph Hersey
Colonel, US Army
Director, Public Works**

3 APR 09

Date

roc

Executive Summary

ES-1 Introduction

On September 8, 2005, the Defense Base Closure and Realignment (BRAC) Commission (Commission) recommended that certain realignment actions occur at Major David P. Oswald U.S. Army Reserve Center (ARC). Oswald ARC is located at 1110 Rainier Avenue Everett, Washington, in Snohomish County.

Base Closure and Realignment Recommendations: *Close the Oswald United States ARC, Everett, Washington, and relocate units to a new Armed Forces Reserve Center (AFRC) in the Everett, Washington area if the Army is able to acquire suitable land for construction of the new facility. The new AFRC shall have the capability to accommodate units from the following Washington Army National Guard (WAARNG) facilities: WAARNG Everett Readiness Center and Snohomish Readiness Center, if the state decides to relocate those units.*

The Commission recommendations were approved by the President on September 23, 2005, and forwarded to Congress. Congress did not alter any of the Commission's recommendations and on November 9, 2005, the recommendations became law. The Commission's recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended.

Furthermore, as part of the Grow the Army (GTA) initiative, the Army Reserve (USAR) is undergoing a transformation of the existing force structure to support the additional Brigade Combat Teams (BCTs) currently activating within the Active Component. The unit(s) required in this project are part of the Army's Combat Service Support (CSS) Reset Initiative to support the BCTs. The USAR is activating new units currently not in the inventory to support the CSS Reset Initiative. Existing facilities in the area do not have the capacity to house the unit personnel and equipment. These units would use the new AFRC in the Everett, Washington area.

ES-2 Proposed Action and Alternatives

The proposed action is to acquire property and construct a 181,318-square-foot (ft²) AFRC and 42,160 square yards (yd²) of paved area (parking and roads) on 25 acres in the Everett area to support the WAARNG and USAR units being relocated to the new AFRC. The AFRC would provide a 1,000-member training facility with administrative, educational, assembly, library, learning center, vault, weapons simulator, and physical fitness areas for USAR units and ARNG units. The organizational maintenance shop (OMS) would provide work bays for training, maintenance, and administrative support for military equipment stored at this facility. This project would also provide an organizational storage building and adequate parking spaces for all military and privately owned vehicles (POVs).

ES-2.1 Implement the Proposed Action at the Preferred Site

Under this alternative, the USAR would acquire 25 acres at the preferred site, 3900 136th Street in Marysville, Washington. The facilities described above would be constructed and operated on this property.

ES-2.2 Implement the Proposed Action at the Alternate Site

Under this alternative, USAR would acquire property at an alternate site, Alternate Site E, located at 16612 51st Ave NE, Arlington, Washington (Figure ES-1). USAR would construct the facilities described above on this property.

ES-2.3 No Action Alternative

Under the no action alternative, the USAR would not construct the AFRC. Implementation of the no action alternative would result in units having to operate and train in facilities not properly configured to allow the most effective training to complete mission requirements and the BRAC recommendation would not be implemented. This would have a negative impact on training and retention objectives and would impair the ability of units to fulfill their designated missions.

ES-2.4 Alternatives Not Considered in Detail

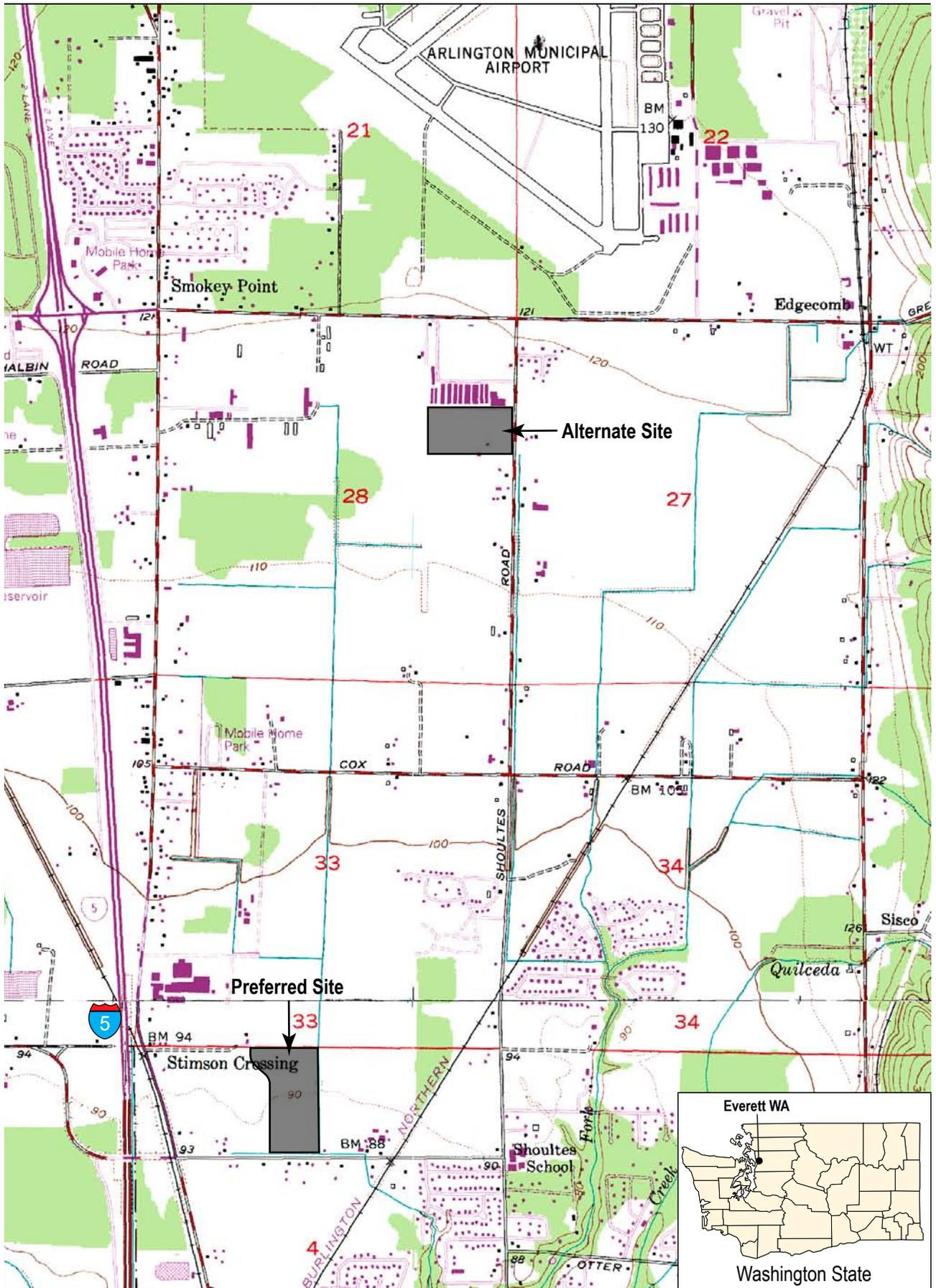
Other alternate sites for implementation of the proposed action were considered, but eliminated as unfeasible. A Site Survey Team (SST) was convened in December 2007 to evaluate sites contained in the Available Site Identification and Validation (ASIV) report prepared by the U.S. Army Corps of Engineers (USACE), Seattle District. Ten sites within or near Everett were investigated through an initial screening. Five of these sites were eliminated from consideration based on lack of availability, insufficient size, or prohibitive cost to develop. Five sites were determined to be potentially suitable to meet the USAR need (Figure 3-2). In addition to the preferred site, designated as Site B, and Alternate Site E, three alternate sites were identified as potentially suitable by the ASIV:

- Alternate Site A
- Alternate Site C
- Alternate Site D

Alternate Sites A, C, and D were eliminated from detailed consideration in this EA as being unfeasible. The reasons these alternatives were considered unfeasible are summarized below.

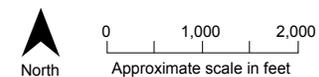
Alternate Site A was rejected by the SST due to its proximity to residential areas and the Boeing plant. Relocation of existing residents would be required in order to use this property, as would demolition of existing structures. It was determined that the potential for conflicts with surrounding land uses made the site unfeasible.

Alternate Site C was initially considered as a viable alternative to the preferred site (B); however, it was subsequently withdrawn from consideration due to being sold to another party. When the parcel became unavailable to the USAR and National Guard Bureau (NGB), this site became unfeasible.



Map Source: USGS 7.5 Minute Series Topographic Quadrangles, Marysville WA 1973, and Arlington West WA 1981.

FIGURE ES-1
Preferred and Alternate Site Locations
USACE BRAC & GTA, Everett, WA



Alternate Site D was eliminated by the SST because the access roads are narrow and heavily traveled and the parcel has an irregular shape which would preclude the front portion from meeting antiterrorism/force protection (AT/FP) standards. Because the narrow streets would create operational issues with movement of military equipment to and from the site and because the site failed to meet all military criteria, it was not considered feasible.

In addition, constructing separate facilities to support the new USAR units activated under the GTA initiative was considered and eliminated as unfeasible due to the additional impacts and the inefficiency of maintaining two training facilities.

ES-3 Environmental Consequences

Table ES-1 summarizes the consequences of implementing the proposed action at the preferred site or the alternate site and the consequences of the no action alternative. The consequences are discussed further in the following sections.

TABLE ES-1
Summary of Potential Environmental and Socioeconomic Consequences
Final EA--Everett, Washington Area

Resource	Environmental and Socioeconomic Consequences		
	No Action	Implement at the Preferred Site	Implement at the Alternate Site
Land Use	No Change from Baseline Conditions	No Impact	No Impact
Air Quality	No Change from Baseline Conditions	Minor short-term impact from construction-related fugitive dust that would be controlled through appropriate best management practices (BMPs). Minor impact from building and water heaters and reserve generators	Minor short-term impact from construction-related fugitive dust that would be controlled through appropriate BMPs Minor impact from building and water heaters and reserve generators
Noise	No Change from Baseline Conditions	Less than significant construction-related: appropriate worker safety measures would be implemented; no long-term effects from operation Nuisance disturbance at nearby businesses possible	Less than significant construction-related: appropriate worker safety measures would be implemented; no long-term effects from operation Nuisance disturbance at nearby businesses possible

TABLE ES-1
 Summary of Potential Environmental and Socioeconomic Consequences
Final EA--Everett, Washington Area

Resource	Environmental and Socioeconomic Consequences		
	No Action	Implement at the Preferred Site	Implement at the Alternate Site
Geology and Soils			
Geology/Topography	No Change from Baseline Conditions	Less than significant: minor topographic alteration through clearing and grading for site preparation	Less than significant: minor topographic alteration through clearing and grading for site preparation
Soils	No Change from Baseline Conditions	Less than significant: appropriate BMPs would be implemented to minimize erosion and impact from stormwater runoff	Less than significant: appropriate BMPs would be implemented to minimize erosion and impact from stormwater runoff
Prime Farmland	No Change from Baseline Conditions	The site is not designated Prime Farmland. Therefore no impact would occur.	The site is not designated Prime Farmland. Therefore no impact would occur.
Water Resources			
Surface Water	No Change from Baseline Conditions	No Impact	No Impact
Hydrogeology/ Groundwater	No Change from Baseline Conditions	No Impact	No Impact
Floodplains	No Change from Baseline Conditions	No Impact	No Impact
Stormwater	No Change from Baseline Conditions	Less than significant: use of appropriate BMPs and stormwater controls would prevent impacts from construction activities. Stormwater controls would be designed to prevent post-construction runoff from exceeding pre-construction runoff.	Less than significant: use of appropriate BMPs and stormwater controls would prevent impacts from construction activities. Stormwater controls would be designed to prevent post-construction runoff from exceeding pre-construction runoff.
Biological Resources			
Vegetation	No Change from Baseline Conditions	No Impact	No Impact
Wildlife	No Change from Baseline Conditions	No Impact	No Impact
Wetlands	No Change from Baseline Conditions	No Impact	No Impact

TABLE ES-1
 Summary of Potential Environmental and Socioeconomic Consequences
 Final EA--Everett, Washington Area

Resource	Environmental and Socioeconomic Consequences		
	No Action	Implement at the Preferred Site	Implement at the Alternate Site
Sensitive Species	No Change from Baseline Conditions	No Impact	No Impact
Cultural Resources			
Historic Resources	No Change from Baseline Conditions	No Impact	No impact anticipated. Site would be surveyed and appropriate SHPO coordination conducted prior to development.
Archeological Resources	No Change from Baseline Conditions	No Impact	No impact anticipated. Site would be surveyed and appropriate SHPO coordination conducted prior to development.
Native American Resources	No Change from Baseline Conditions	No Impact	No impact anticipated. Site would be surveyed and appropriate SHPO coordination conducted prior to development.
Socioeconomics			
Economic Development	No Change from Baseline Conditions	Short-term minor beneficial effects to the regional economy from construction, long-term minor benefit to regional economy from activation of six new units.	Short-term minor beneficial effects to the regional economy from construction, long-term minor benefit to regional economy from activation of six new units.
Socioeconomics			
Demographics	No Change from Baseline Conditions	No Impact	No Impact
Housing	No Change from Baseline Conditions	No Impact	No Impact
Environmental Justice	No Change from Baseline Conditions	No Impact	No Impact
Protection of Children	No Change from Baseline Conditions	No Impact	No Impact

TABLE ES-1
 Summary of Potential Environmental and Socioeconomic Consequences
Final EA--Everett, Washington Area

Resource	Environmental and Socioeconomic Consequences		
	No Action	Implement at the Preferred Site	Implement at the Alternate Site
Transportation	No Change from Baseline Conditions	Less than significant additional traffic on 136 th Street	Less than significant
Hazardous Materials, Wastes, IRP Sites, and Stored Fuels			
Hazardous/Toxic Materials	No Change from Baseline Conditions	Less than significant from minor use quantities of cleaners, solvents, and lubricants associated with operation of AFRC and OMS	Less than significant from minor use quantities of cleaners, solvents, and lubricants associated with operation of AFRC and OMS
IRP	No Change from Baseline Conditions	No Impact	No Impact
Indirect and Cumulative Impacts	No Change from Baseline Conditions	No Impact	No Impact

ES-3.1 Consequences of Implementation of the Proposed Action at the Preferred Site

Implementation of the proposed action at the preferred site would result in minor short-term impacts to air quality from construction, negligible adverse impacts to air quality resulting from operation of reserve generators and building heating and air conditioning, temporary construction-related noise, minor alteration of topography and soils, *de minimis* impacts from construction and post-construction stormwater, and minor generation of construction-related waste.

ES-3.2 Consequences of Implementation of the Proposed Action at the Alternate Site

Implementation of the proposed action at the alternate site would result in impacts similar to those of the proposed action at the preferred site.

ES-3.3 Consequences of the No Action Alternative

There would be no impacts under the no action alternative.

ES3.4 Cumulative Effects Summary

Two planned developments were identified as having potential for cumulative impacts with the proposed action:

- Development of Northpointe Industrial Park.
- Construction of the Allen Creek Community Church.

Cumulative effects could occur if the project construction were to overlap, but would be limited to increased short-term impacts to air quality. Cumulative effects during operation of the proposed action could include increased traffic, with possible congestion and delays, on area streets when military activities occur concurrent with business activity in the industrial park or church services and events.

ES3.5 Mitigation Summary

Implementation of the proposed action would not result in significant impacts to environmental or socioeconomic resources. Because all impacts would be less than significant, no mitigation is proposed. To avoid or reduce potential impacts to the extent practicable, BMPs and project design features would be implemented as part of the proposed action. The USAR also would obtain any required permits, approvals, and certifications prior to implementing construction activities. Personnel conducting construction activities would strictly adhere to all applicable occupational safety requirements during construction activities.

Specific project design features that would be implemented to minimize or eliminate impacts from fugitive dust include use of sprinkling, irrigation, and/or mulching to prevent generation of airborne dust and the use of revegetation and mulching as soon as work is complete to minimize the exposure of bare soil.

Appropriate BMPs that would be implemented and maintained to minimize the potential for stormwater runoff and resultant downstream impacts to water quality during construction could include, but would not be limited to, use of silt fencing and sediment traps, and revegetation/mulching of disturbed areas as soon as practicable.

ES-4 Conclusions

Based on the environmental impact analysis, it has been concluded that no significant environmental or socioeconomic impacts would result from the implementation of the proposed action at the preferred site. Therefore, it is not necessary to prepare an environmental impact statement (EIS) to address the proposed action and a Finding of No Significant Impact (FNSI) should be issued.

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1.0 Purpose, Need, and Scope

1.1 Introduction

On September 8, 2005, the Defense Base Closure and Realignment (BRAC) Commission (Commission) recommended that certain realignment and closure actions occur in Washington State. This environmental assessment (EA) analyzes the specific BRAC recommendation as follows:

Base Closure and Realignment Recommendation: *Close the Oswald United States Army Reserve Center (ARC), Everett, Washington, and relocate units to a new Armed Forces Reserve Center (AFRC) in the Everett, Washington area if the Army is able to acquire suitable land for construction of the new facility. The new AFRC shall have the capability to accommodate units from the following Washington Army National Guard (WAARNG) facilities: WAARNG Everett Readiness Center and Snohomish Readiness Center, if the state decides to relocate those units.*

The Commission recommendations were approved by the President on September 23, 2005, and forwarded to Congress. Congress did not alter any of the Commission's recommendations and on November 9, 2005, the recommendations became law. The Commission's recommendations must now be implemented as provided for in the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510), as amended.

Implementation of the BRAC recommendation will require construction of new facilities, including an AFRC and an organizational maintenance shop (OMS).

Furthermore, as part of the Grow the Army (GTA) initiative, the Army Reserve (USAR) is undergoing a transformation of the existing force structure to support the additional Brigade Combat Teams (BCTs) currently activating within the Active Component. The units are part of the Army's Combat Service Support (CSS) Reset Initiative to support the BCTs. The USAR is activating six new units currently not in the inventory to support the CSS Reset Initiative. Existing facilities in the area do not have the capacity to house the unit personnel and equipment. This EA assumes the units would use the new AFRC in the Everett, Washington area.

This EA, prepared for the USAR, analyzes and documents environmental effects associated with the Army's proposed action in the Everett, Washington area. Details on the proposed action are set forth in Section 2.

1.2 Purpose and Need

The USAR mission, under Title 10 of the U.S. Code, is to provide trained and ready soldiers and units with the critical combat service support and combat support capabilities necessary to support national strategy during peacetime, contingencies, and war. The USAR is a key element in the Army multicomponent unit force, training with Active and National Guard units to ensure all three components work as a fully integrated team.

The purpose and need for the proposed action is to enhance military value, improve homeland defense capability, improve training and deployment capability, and create significant efficiencies and cost savings, in a way that is consistent with BRAC recommendations, the Army's force structure plans, and Army transformational objectives.

The proposed action would enhance the ability of the USAR and WAARNG to fulfill their military missions by providing a multicomponent, multifunctional facility at the new AFRC capable of accommodating Reserve and National Guard units including newly activated units (Figure 1-1). This joint-use facility would significantly reduce operating costs and create improved business practices while optimizing the Reserve Components' ability to recruit and retain Reserve Component soldiers and to train and mobilize units affected by this recommendation.

The recommendations of the Commission, made in conformance with the provisions of the Defense Base Closure and Realignment Act of 1990, as amended, require the relocation of USAR personnel to the new AFRC, and construction of support facilities. As part of the GTA initiative, the CSS Reset Initiative requires facilities to house the unit personnel and equipment. Pursuant to the National Environmental Policy Act of 1969 (NEPA) and its implementing regulations, the Army has prepared this EA to address the environmental and socioeconomic impacts of relocating personnel, conducting training activities, and constructing buildings to support the realignment. This assessment includes an evaluation of reasonable alternatives.

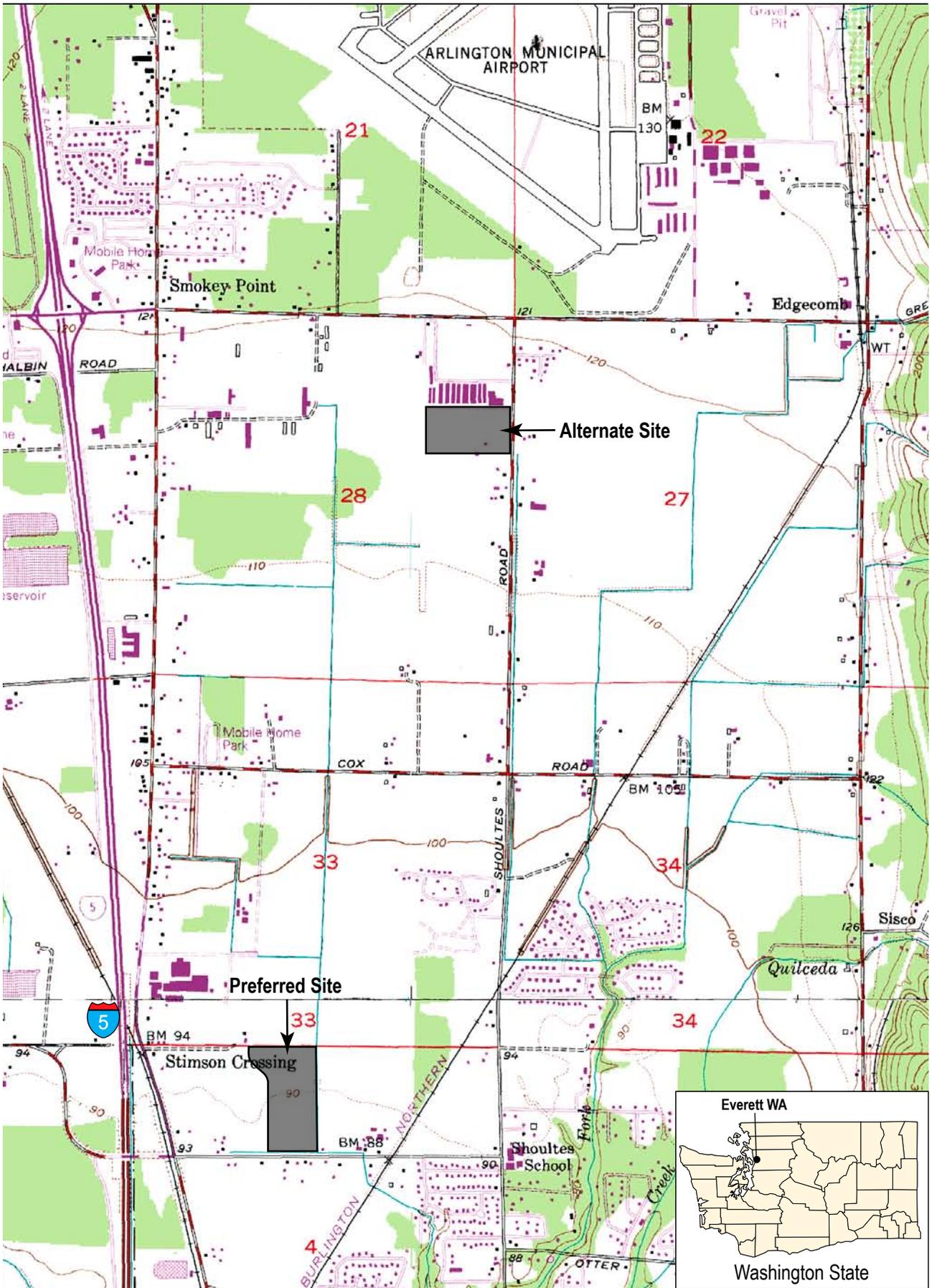
The USAR and the WAARNG are realigning units as directed by the Commission. The USAR is closing Oswald ARC at Everett and relocating units to a new AFRC. The Oswald ARC does not have sufficient capacity for consolidation or expansion and does not meet current force structure or unit design requirements. The proposed action would provide adequate consolidated facilities to support the units and facilities involved in the BRAC action.

This EA analyzes the USAR's proposed implementation of the BRAC recommendation and to support the six new units that will be activated under GTA.

1.3 Scope

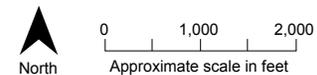
This EA has been developed in accordance with NEPA and implementing regulations found at 40 *Code of Federal Regulations* (CFR) Part 1500 through Part 1508 (President's Council on Environmental Quality [CEQ], 2002), and 32 CFR 651 (Office of the Deputy Assistant Secretary of the Army, 2002). Its purpose is to inform decision makers and the public of the likely environmental consequences of the proposed action and alternatives.

The Defense Base Closure and Realignment Act of 1990 specifies that in applying the provisions of NEPA to the process, the Secretary of Defense and the secretaries of the military departments concerned do not have to consider "(i) the need for closing or realigning the military installations which have been recommended for closure or realignment by the Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations



Map Source: USGS 7.5 Minute Series Topographic Quadrangles, Marysville WA 1973, and Arlington West WA 1981.

FIGURE 1-1
Preferred and Alternate Site Locations
USACE BRAC & GTA, Everett, WA



alternative to those recommended or selected” (Sec. 2905(c)(2)(B), Public Law 101-510, as amended). The Commission’s deliberations and decisions, as well as the need for closing or realigning a military installation, are exempt from NEPA. Accordingly, this EA does not address the need for closure or realignment.

This EA identifies, documents, and evaluates the environmental and socioeconomic effects of construction and operation of the AFRC and associated facilities and relocation of USAR and WAARNG units and associated personnel to the new AFRC. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, and military technicians has analyzed the proposed action and alternatives in light of existing conditions and has identified relevant beneficial and adverse effects associated with the action and alternatives.

This EA includes discussion of the potential environmental effects of the construction and routine operation of AFRC facilities for the USAR units and WAARNG units at the proposed AFRC. Reasonably foreseeable future needs are assessed in the cumulative impacts section of this EA. Any additional requirements stemming from other military actions will undergo separate NEPA analysis and evaluation.

This EA also considers the potential impacts of the no action alternative, as required by NEPA, to provide a benchmark for comparison of the potential impacts of the proposed action and the alternatives.

1.4 Public Involvement

The Army invites public participation in the proposed federal action through the NEPA process. Consideration of the views and information of all interested persons promotes open communication and enables better decision making. All agencies, organizations, and members of the public having a potential interest in the proposed action, including minority, low-income, disadvantaged, and Native American groups, are urged to participate in the decision-making process. Initial agency scoping letters were submitted to the U.S. Fish and Wildlife Service (USFWS) and the Washington State Historic Preservation Office (SHPO) (Appendix A).

Public participation opportunities with respect to this EA and decision making on the proposed action are guided by 32 CFR Part 651. When the environmental analysis is complete, the Final EA and Draft Finding of No Significant Impact (FNSI) will be made available to the public for comment for a period of 30 days. At the end of the 30-day period, the Army will consider all comments submitted by individuals, agencies, and organizations. As appropriate, the Army may then execute the FNSI and proceed with implementation of the proposed action. If it is determined that implementation of the proposed action would result in significant impacts, the Army will publish in the *Federal Register* a Notice of Intent (NOI) to prepare an environmental impact statement (EIS) or will not take the action.

Throughout this process, the public may obtain information on the status and progress of the proposed action and the EA through the 70th RCC Public Affairs Officer, Ms. Pam Garrison, 4570 Texas Way, West Seattle, Washington 98199.

1.5 Relevant Statutes and Executive Orders

A decision on whether to proceed with the proposed action depends on numerous factors such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, the USAR is guided by relevant statutes (and their implementing regulations) and Executive Orders (EOs) that establish standards and provide guidance on environmental and natural resources management and planning. These include the Clean Air Act, Clean Water Act, Noise Control Act, Endangered Species Act, Migratory Bird Treaty Act, National Historic Preservation Act, Archaeological Resources Protection Act, Resource Conservation and Recovery Act (RCRA), and Toxic Substances Control Act. Executive Orders bearing on the proposed action include EO 11988 (*Floodplain Management*), EO 11990 (*Protection of Wetlands*), EO 12088 (*Federal Compliance with Pollution Control Standards*), EO 12580 (*Superfund Implementation*), EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), EO 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*), EO 13175 (*Consultation and Coordination with Indian Tribal Governments*), and EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*). These authorities are addressed in various sections throughout this EA when relevant to particular environmental resources and conditions. The full text of the laws, regulations, and EOs is available on the Defense Environmental Network and Information Exchange Web site at <http://www.denix.osd.mil>.

The means available to Army installation commanders to satisfy their facilities' space requirements are subject to policies set forth in various Army Regulations (ARs). Army Regulation 210-20 (*Installation Master Planning*) establishes Army policy to maximize use of existing facilities. The regulation directs that new construction will not be authorized to meet an installation mission that can be supported by existing underused and adequate facilities, provided that the use of such facilities does not degrade operational efficiency. The Design of the proposed facility would be Leadership in Energy and Environmental Design (LEED) Silver Certified.

2.0 Description of the Proposed Action

2.1 Introduction

This section describes the Army's primary alternative for carrying out the Commission's recommendations and supporting the GTA initiative.

The proposed action is to implement the Commission's recommendation as mandated by the BRAC legislation, Public Laws 101-510 and 107-107. The Commission's recommendation is to *close the Oswald United States Army Reserve Center, Everett, Washington, and relocate units to a new AFRC in the Everett, Washington area if the Army is able to acquire suitable land for construction of the new facility. The new AFRC shall have the capability to accommodate units from*

the following Washington ARNG facilities: Washington ARNG Everett Readiness Center and Snohomish Readiness Center, if the state decides to relocate those units.

This action also supports the GTA initiative in providing facilities to support the six new units that the USAR is activating.

To accomplish the BRAC recommendation and support the GTA initiative, the USAR would construct a new facility and relocate units from closed facilities to the new AFRC. The proposed action is to acquire property and construct suitable facilities for the USAR and WAARNG.

2.2 Implementation Proposed

The proposed action is to acquire property and construct a 181,318-square-foot (ft²) AFRC and 42,160 square yards (yd²) of paved area (parking and roads) on 25 acres in the Everett area to support the three WAARNG and two USAR units being relocated to the new AFRC and the six new units the USAR is activating under the GTA initiative.

The AFRC would provide a 1,000-member training facility with administrative, educational, assembly, library, learning center, vault, weapons simulator, and physical fitness areas. The OMS would provide work bays for training, maintenance, and administrative support for military equipment stored at this facility. This project would also provide an organizational storage building and adequate parking spaces for all military and privately owned vehicles (POVs).

3.0 Alternatives

The alternatives considered in this EA include implementation of the proposed action described above at a preferred site or an alternate site and the no action alternative. Additional alternatives that were considered in the planning stages of the project and determined to be not feasible are briefly discussed.

Implementation of the proposed action at the preferred site is described in Section 3.1.1 and implementation of the proposed action at the alternate site is described in Section 3.1.2. Section 3.2 describes other alternatives that were considered early in the NEPA process but determined to be not feasible, along with the reasons for the determination. The no action alternative is presented in Section 3.3.

This section presents information on the proposed action and the alternatives considered. The preferred site is described in Section 3.1.1, and the alternate site for the AFRC is described in Section 3.1.2. Section 3.2 describes other alternatives that were considered early in the NEPA process but were determined to be not feasible. The no action alternative is presented in Section 3.3.

Alternatives were screened using the following criteria:

- Feasibility
- Compliance with BRAC recommendations
- Environmental and cultural resource constraints
- Military constraints

3.1 Siting Alternatives

3.1.1 Preferred Site

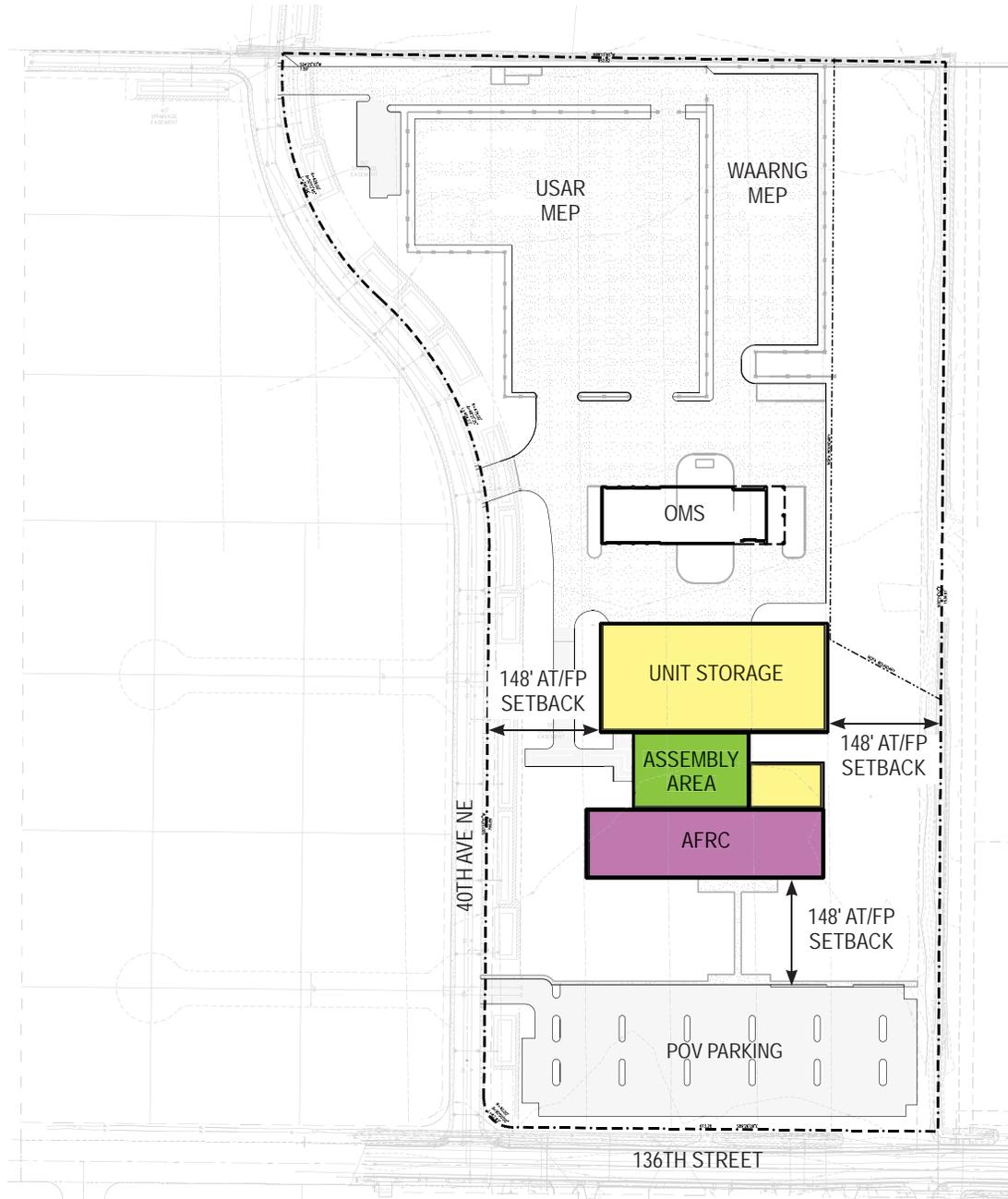
The preferred site is at 3900 136th Street in Marysville, Washington, which is easily accessible from Interstate 5. USAR would acquire 25 acres at this site and construct a 181,318- ft² AFRC, containing a 150,885-ft² training and administrative building, a 16,289-ft² OMS, and a 14,144-ft² unheated storage building to support the units being relocated to the new AFRC (Table 3-1).

TABLE 3-1
Proposed Construction Components
Final EA--Everett, Washington Area

Facility	Area
Armed Forces Reserve Center Total	181,318 ft ²
Training and Administrative Building	150,885 ft ²
Organizational Maintenance Shop	16,289 ft ²
Unheated Storage Building	14,144 ft ²
Paved Parking	26,298 yd ²
Paving – POV/Roads	15,862 yd ²
Total	
Structures	181,318 ft ²
Paving	42,160 yd ²

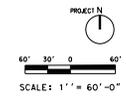
The AFRC would provide administrative, supply, classroom, locker, latrine, and kitchen space in addition to the recruiting area (Figure 3-1). The OMS would include a one-story structure with mechanical and electrical equipment, a locker room, latrine, break/assembly area, physical fitness area, and a work area that would include repair and machine shops. Additional support facilities would include military and POV parking, military equipment parking (MEP), fencing, sidewalks, exterior fire protection, lighting, access roads, wash platform, fuel storage and dispensing system, and work bays. The OMS is proposed to be collocated with the AFRC to reduce construction costs and allow for convenient access to equipment. Placing both facilities on the same property would enhance ease of access and use by associated units.

The preferred site is vacant and zoned light industrial. This and adjoining parcels are proposed for development as part of the Northpointe Industrial Park. Prior to construction of the AFRC, the site would be cleared and graded and augmented with fill material to provide proper drainage. An access road (40th Avenue NE) would be constructed and utility hookups would be installed at the road.



LEGEND

- 1 STORY
- 1.5 STORY
- 2 STORY



SOURCE: DRAWING FROM SHEET CS-101, JACOBS FOR U.S. ARMY CORPS ENGINEERS, LOUISVILLE DISTRICT, EVERETT SEATTLE, WA., JAN 2009.

FIGURE 3-1
 Site Layout for Proposed Action
USACE BRAC & GTA
Everett, Washington



Preferred Site– Marysville, WA

3.1.2 Alternate Site

Under this alternative, the same facilities as described for the preferred site would be constructed at the alternate site located at 16612 51st Avenue NE, Arlington, Washington (Figure 1-1). The alternate site is a 22-acre parcel of former farmland currently zoned light industrial. It is adjacent to the National Food Corporation poultry plant and has good access to Interstate 5. Site improvements similar to those outlined for the preferred site would be required as part of construction of the AFRC at this location.



Alternate Site – Arlington, WA

3.2 Additional Alternatives

3.2.1 Construct AFRC/OMS at Other Sites

Other alternatives were considered, but eliminated as unfeasible. A Site Survey Team (SST) was convened in December 2007 to evaluate sites listed in the Available Site Identification and Validation (ASIV) report prepared by the USACE, Seattle District. The ASIV investigated 10 preliminary sites within or near Everett. Five of these sites were eliminated from consideration based on lack of availability, insufficient size, or prohibitive cost to develop. Five sites were determined to be potentially suitable to meet the USAR need (Figure 3-2). In addition to the preferred site, designated as Site B, and Alternate Site E, three alternate sites were identified as potentially suitable by the ASIV:

- Alternate Site A, located at 78th Street SW, Everett, Washington
- Alternate Site C, located at 15621 Smokey Point Blvd, Marysville, Washington
- Alternate Site D, located at 59th Avenue, Arlington, Washington

Alternate Sites A, C, and D were eliminated from detailed consideration in this EA as being unfeasible. The rationale for these alternatives being eliminated is summarized as follows.

Alternate Site A was rejected by the SST due to its proximity to residential areas and the Boeing plant. Relocation of existing residents would be required to use this property, as would demolition of existing structures. It was determined that the potential for conflicts with surrounding land uses made the site unfeasible.

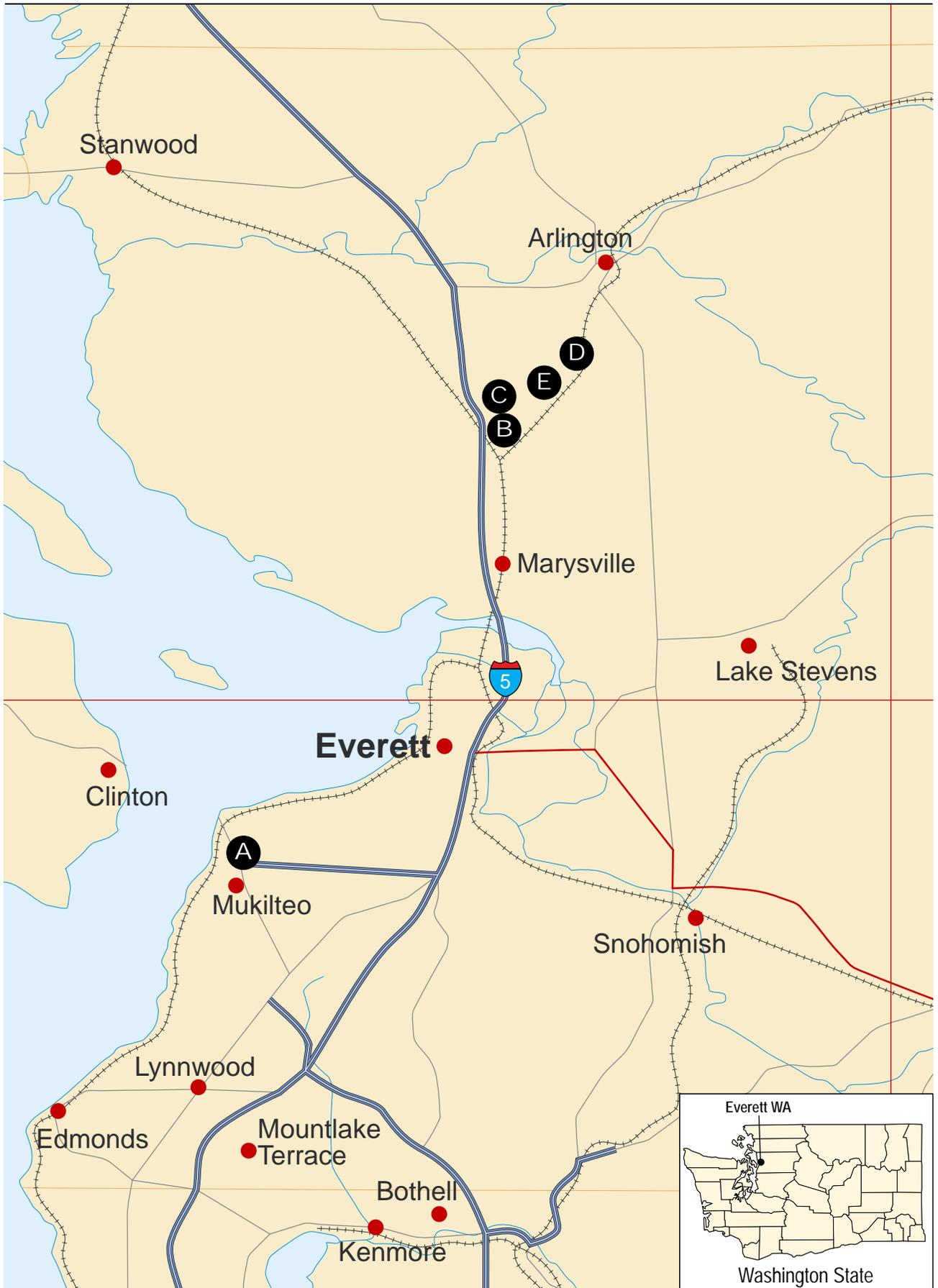
Alternate Site C was initially considered as a viable alternative to the preferred site; however, it was subsequently withdrawn from consideration after being sold to another party. When the parcel became unavailable to USAR and NGB, this site became unfeasible.

Alternate Site D was eliminated by the SST because the access roads are narrow and heavily traveled and the parcel has an irregular shape which would preclude the front portion from meeting antiterrorism/force protection (AT/FP) standards. Because the narrow streets would create operational issues with movement of military equipment to and from the site and because the site failed to meet all military criteria, it was not considered feasible.

3.2.2 Construct Separate Facilities for New USAR Units

The six new units that the USAR will activate under the GTA initiative are not constrained by the BRAC Commission recommendations and could be supported in separate facilities from those relocating from the Oswald United States ARC. Therefore, constructing additional, separate facilities for these units was considered.

Construction of separate facilities on another location would require that USAR acquire additional property. Acquisition of additional property would result in increased costs for due diligence and purchase of a suitable site that would not be incurred under the proposed action. The environmental and socioeconomic impacts of construction and operation would be comparable to those of the proposed action, as similar buildings and parking areas would be constructed.



Map Source: Mountain High Maps® USA Relief Copyright © 2001 Digital Wisdom®, Inc.

FIGURE 3-2
 Alternate Sites Considered
 USACE BRAC & GTA, Everett, WA



Separation of USAR units would result in decreased operational efficiency; the costs of cross unit or multiple unit training exercises would be greater from separate locations. Recruiting would be enhanced by have collocated facilities.

Because the impacts would be comparable, costs would be greater, and there would be decreased mission efficiency, construction of separate facilities for the new USAR units is not considered feasible, and this alternative is not further evaluated.

3.3 No Action Alternative

3.3.1 No Action Alternative

Under the no action alternative, the USAR would not acquire property and construct the AFRC. Implementation of the no action alternative would result in units having to operate and train in inadequate and improperly configured facilities and the BRAC recommendation would not be implemented. This would have a negative impact on training and retention objectives and would impair the ability of units to fulfill their designated missions.

The no action alternative would not address the purpose and need for the proposed action; however, inclusion of the no action alternative serves as a benchmark for evaluation of the potential effects of the proposed action and is required by NEPA. Therefore, the no action alternative is evaluated in detail in this EA.

4.0 Affected Environment and Consequences

4.1 Introduction

This section describes relevant existing environmental and socioeconomic conditions for resources potentially affected by the proposed action and the potential impacts of implementing the proposed action or alternatives.

This section provides information to serve as a baseline from which to identify and evaluate environmental and socioeconomic changes likely to result from implementation of the proposed action. Baseline conditions represent current conditions.

In compliance with NEPA, CEQ guidelines, and 32 CFR Part 651, et seq., the description of the affected environment focuses on those resources and conditions potentially subject to impacts. These include land use, air quality, noise, geology and soils, water resources, biological resources, cultural resources, socioeconomics, transportation, and hazardous and toxic substances. Conversely, the following resource areas were not carried forward for analysis in this EA, as potential impacts were considered to be negligible or nonexistent:

Visual Resources. The preferred site and alternate site are located in areas that lack notable scenic vistas or visual sensitivity. Construction of the proposed AFRC would be compatible with surrounding developed and proposed land uses at either location, and would not alter the visual character of either area. Construction and operation of the AFRC would be compatible with existing zoning at either location. Therefore, impacts to visual resources would not occur.

Public Services and Utilities. No new public services would be constructed under the proposed action. Construction of the AFRC would include installation of onsite utility infrastructure and facilities consistent with current utility and force protection requirements. Existing utility infrastructure (telecommunications, water, electricity, sewer, and gas) and public services (police, fire, medical, recreation, and education) at the preferred site and alternate site can accommodate the new facility requirements. Impacts to public services and utilities would be negligible.

Subsequent to the description of the affected environment, this section presents the analysis of the direct, indirect, and cumulative environmental and socioeconomic effects that would likely occur with the proposed action or no action alternative and identifies any adverse environmental effects that cannot be avoided through project design.

4.1.1 Direct versus Indirect Effects

The terms “effect” and “impact” are synonymous as used in this EA. Effects may be beneficial or adverse and may apply to the full range of natural, aesthetic, historic, cultural, and economic resources within the project area and also within the surrounding area. Definitions and examples of direct and indirect impacts as used in this document are as follows:

- **Direct impact.** A direct impact is one that would be caused directly by implementing an alternative and that would occur at the same time and place.
- **Indirect impact.** An indirect impact is one that would be caused by implementing an alternative that would occur later in time or farther removed in distance but would still be a reasonably foreseeable outcome of the action. Indirect impacts may include induced changes in the pattern of land use, population density, or growth rate, and indirect effects to air, water, and other natural resources and social systems.
- **Relationship between direct versus indirect impacts.** For direct impacts to occur, a resource must be present. For example, if highly erodible soils were disturbed as a direct result of the use of heavy equipment during construction of a home, a direct effect could occur on soils resulting from erosion. This could indirectly affect water quality if stormwater runoff containing sediment from the construction site were to enter a stream.

4.1.2 Short-term versus Long-term Effects

Effects are also expressed in terms of duration. The duration of short-term impacts is considered to be 1 year or less. For example, the construction of a building would likely expose soil in the immediate area of construction. However, this effect would be considered short-term because vegetation would likely re-establish on the disturbed area within a year

of the disturbance. Long-term impacts are described as lasting beyond 1 year. Long-term impacts can potentially continue in perpetuity, in which case they would also be described as permanent.

4.1.3 Intensity of Effects

The magnitude of effects of an action must be considered regardless of whether the effects are adverse or beneficial. The following terms are used to describe the magnitude of impacts:

- **No impact.** The action does not cause a detectable change.
- **Negligible.** The impact is at the lowest level of detection.
- **Minor.** The impact is slight but detectable.
- **Moderate.** The impact is readily apparent.
- **Major.** The impact is severely adverse or exceptionally beneficial.

4.1.4 Significance

In accordance with CEQ regulations and implementing guidance, impacts are also evaluated in terms of whether they are significant. Both short- and long-term effects are relevant to the consideration of significance. Significant, as defined in the CEQ regulations for implementing NEPA at 40 CFR 1508.27, requires consideration of context and intensity.

Context requires that significance may be considered with regard to society, the affected region, affected interests, and the locality. The scale of consideration for context varies with the setting and magnitude of the action. A small, site-specific action is best evaluated relative to the location rather than to the entire world.

4.1.5 Cumulative Effects

The most severe environmental degradation may not result from the direct effects of any particular action, but from the combination of effects of multiple, independent actions over time. As defined in 40 CFR 1508.7 (CEQ Regulations), a cumulative effect is as follows:

The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions.

Some authorities contend that most environmental effects can be seen as cumulative because almost all systems have already been modified. Principles of cumulative effects analysis are described in the CEQ guide *Considering Cumulative Effects under the National Environmental Policy Act*.

The CEQ guidance (1997) on cumulative impacts analysis states the following:

For cumulative effects analysis to help the decision maker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to affected parties.

4.1.6 Mitigation

The alternatives considered in this EA could have environmental and socioeconomic impacts resulting from implementation that would require mitigation. Where potentially significant impacts are identified, measures that could be implemented to mitigate the magnitude of impacts are discussed. Potential mitigation actions could include the following:

- Rectifying an impact by repairing, rehabilitating, or restoring the affected environment
- Reducing or eliminating an impact over time by preservation and maintenance operations during the life of the action
- Compensating for an impact by replacing or providing substitute resources or environments

Where no significant adverse impacts are identified, mitigation measures are not proposed. Absent mitigation, USAR would implement best management practices (BMPs) and project design features to avoid or minimize unavoidable impacts that are less than significant.

No mitigation measures are proposed as all expected impacts are less than significant.

4.2 Land Use

4.2.1 Affected Environment

4.2.1.1 Definition of Resource

Land use comprises the natural conditions and human-modified activities occurring at a particular location. Human-modified land use categories include residential, commercial, industrial, transportation, communications and utilities, agricultural, institutional, recreational, and other developed use areas. Management plans and zoning regulations determine the type and extent of land use allowable in specific areas and are often intended to protect specially designated or environmentally sensitive areas.

4.2.1.2 Regional Geographic Setting and Location

Both Marysville and Arlington (preferred site and alternate site, respectively) are in Snohomish County, Washington. Marysville is approximately 33 miles north of Seattle and 5.6 miles north of Everett. Marysville is bordered on the west by the Tulalip Reservation, on the east by State Route 9 and on the north by the City of Arlington. Arlington adjoins Marysville to the north. The city limits encompass an area of approximately 8.2 square miles. The city is roughly bounded by the Stillaguamish River and its floodplain on the north-northwest; Interstate 5 on the west; and State Route 9 and the South Fork Stillaguamish floodplain on the east.

4.2.1.3 Preferred Site

The preferred site is located at 3900 136th Street, in Marysville. The site is within the Smokey Point Neighborhood, Planning Area 10, in the Marysville Comprehensive Plan. Land use within the Smokey Point Neighborhood is predominantly commercial and industrial with limited residential uses, either existing or planned (City of Marysville, 2005). The preferred

site is zoned light industrial and is part of a proposed development called Northpointe Industrial Park. The former land use was agricultural. The site is bordered on the south by 136th Street and on the east by Hayho Creek, and by existing farmland and commercial property to the north and west. To the east of Hayho Creek is the Naval Station Everett Support Complex.

4.2.1.4 Alternate Site

The alternate site located on 16612 51st Avenue NE, Arlington, Washington, is approximately 2 miles northeast of the preferred site. The site is a level, treeless, 22-acre parcel of former farmland currently zoned as light industrial. This site is bordered on the west by Shoultes Road and by a poultry plant to the north. Arlington Municipal Airport lies less than a mile to the north. To the east and south, the site is bordered by existing farmland.

4.2.2 Consequences

4.2.2.1 Approach to Analysis

Significance of potential land use impacts is dependent upon the level of land use sensitivity in areas affected by a proposed action. In general, land use impacts would be significant if they would (1) be inconsistent or in noncompliance with applicable land use plans or policies, (2) preclude the viability of an existing land use activity, (3) preclude continued use or occupation of an area, (4) be incompatible with adjacent or vicinity land use to the extent that public health or safety is threatened, or (5) conflict with planning criteria established to ensure the safety and protection of human life and property.

4.2.2.2 Preferred Site

Implementation of the proposed action at the preferred site would have no impact on land use. The site is currently zoned light industrial and is slated to be developed as part of the planned Northpointe Industrial Park.

Therefore, no significant impacts to land use would occur as a result of proposed construction activities.

4.2.2.3 Alternate Site

Implementation of the proposed action at the alternate site would have no impact on land use. The site is currently zoned light industrial. Development on the alternate site must be compatible with the Arlington Airport, which is nearby, and Federal Aviation Administration regulations for development near municipal airports. Structures and utilities must not impact airborne aircraft because of the height of structures. Smoke, glare, lights which shine upwards, and radio interferences with air traffic control would not be allowed. Water impoundments that could be wildlife attractants would not be allowed as part of the stormwater control system of landscaping.

4.2.2.4 No Action Alternative

Under the no action alternative, the proposed projects would not occur. Baseline conditions, as described in Section 4.2.1, would remain unchanged.

4.3 Air Quality

4.3.1 Existing Conditions and State Implementation Plan

The preferred site and the alternate site are under the authority of the Puget Sound Intrastate Regional Air Quality Plan. The Puget Sound area is designated as in attainment/maintenance for carbon monoxide (CO) and is classified as in attainment for all other criteria pollutants.

Regions receive “attainment,” “nonattainment,” and “maintenance” designations by the U.S. Environmental Protection Agency (EPA). Attainment refers to geographic areas that meet National Ambient Air Quality Standards (NAAQS), while nonattainment refers to areas that do not meet the NAAQS. Maintenance areas are geographic areas that were classified as in nonattainment but have recently achieved compliance with NAAQS. The State of Washington is required by the Clean Air Act to prepare a State Implementation Plan (SIP) for areas that are in nonattainment or maintenance. The SIP reflects the steps or plan that the state has enacted to show the federal government that it will achieve attainment for all criteria pollutants.

4.3.2 Consequences

This section describes the analysis of air quality impacts associated with construction of the ARC. The emissions estimates were developed using the U.S. Air Force Air Conformity Applicability Model (ACAM).

4.3.2.1 Preferred Site – Operational Impacts

Minor permanent sources of air emissions would be created by the operation of the AFRC at the preferred site, including building heating units, water heaters, and reserve generators. These small sources would likely have a negligible impact on local air quality.

4.3.2.2 Preferred Site – Construction Impacts

Construction of the project would likely occur over the period from May 2009 to May 2011 and would involve activities such as grading portions of a 25-acre site, excavation, paving of 8.71 acres, and construction of buildings totaling 181,318 ft². Construction emissions were calculated for each year, based on current assumptions regarding when construction of each project would begin and end. These annual emissions represent the only substantial increase associated with the project and form the basis for the general conformity applicability determination discussion later in this report. Conservative assumptions were made regarding overlap of projects so that construction emissions were not underestimated for any given year.

Short-term impacts to air quality would result from construction activities directly associated with the proposed project. Equipment would be used during site preparation and project construction to perform activities such as clearing, grading, and excavating. These activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants such as CO, nitrogen oxide (NO_x), volatile organic compounds (VOCs), sulfur oxide (SO_x), particulate matter less than 10 micrometers in aerodynamic diameter (PM₁₀), and particulate matter less than 2.5 micrometers in

aerodynamic diameter (PM_{2.5}). Emissions were estimated using the U. S. Air Force ACAM. Specific emission factors, assumptions, and equations for area, mobile, and point sources are given in the ACAM technical documentation. Formulas were established for grading equipment, asphalt paving, stationary equipment, mobile equipment, architectural coatings, and commuter automobiles (Appendix B).

Each component of the proposed action was divided into three stages – grading, construction, and paving. It was assumed that the first 4 months of scheduled construction would be used for grading, the last 4 months would be used for paving, and the remaining time would be used for construction. Because the construction schedule is not firmly established at this time, two scenarios were analyzed to capture worst-case annual emissions from construction. Scenario A begins in May 2009 and includes 4 months of grading and 4 months of construction in 2009, 12 months of construction in 2010, and 4 months of paving in 2011. Scenario B begins in January 2010 and includes 4 months of grading and 8 months of construction in 2010, and 8 months of construction and 4 months of paving in 2011. Calculations from ACAM were used to estimate the total emissions for each calendar year.

The projected emissions of CO are below the general conformity *de minimis* threshold of 100 tons per year (Table 4-1) and represent less than 0.02 percent of the Puget Sound region emission inventory listed in the EPA-approved 1996 Maintenance Plan for the continued attainment of the CO NAAQS during the peak construction year.

TABLE 4-1
Projected Air Emissions During Construction of ARC
Final EA--Everett, Washington Area

	CO (ton/year)	NO _x (ton/year)	VOC (ton/year)	PM ₁₀ /PM _{2.5} (ton/year) ^a	SO _x (ton/year)
2009 Scenario A	21	8.7	1.5	45	1.0
2010 Scenario A	59	18	3.9	1.4	2.2
2011 Scenario A	N/A	N/A	0.01	N/A	N/A
2010 Scenario B	40	15	15	46	1.7
2011 Scenario B	39	12	3	1.0	1.4
Worst-case Annual Total	59	18	15	46	2.2
Total (tons/day)	0.16	NA	NA	NA	NA
SIP Emissions Budget (tons/day) ^b	1,497	NA	NA	NA	NA
Percent of Emissions Inventory	< 0.02%	NA	NA	NA	NA

^a PM_{2.5} emissions were assumed to be equal to PM₁₀ emissions, as no specific factors are available at this time.

^b SIP inventory data are from 61 FR 53323 (October 11, 1996), which was established through the year 2010.

In addition, impacts to air quality associated with construction are temporary and of short duration. Therefore, the regional impacts are considered to be less than significant.

No indirect impacts were identified for construction of the projects.

4.3.2.3 Alternate Site

The same facilities would be constructed and operated at the alternate site. The activities associated with construction and operation of the AFRC at the alternate site would result in the same air emissions as construction and operation at the preferred site.

4.3.2.4 No Action Alternative

There would be no construction activities associated with the no action alternative. Therefore, this alternative would likely have no adverse impacts on air quality.

4.3.2.5 Conformity Determination

General conformity applies to all federal actions in nonattainment or maintenance areas not specifically covered by transportation conformity. To determine whether general conformity requirements apply to an action, the project proponent must consider (1) the nonattainment and maintenance status of an area, (2) the exemptions from and presumptions to conformity, (3) the project's emissions, and (4) the regional significance of the project's emissions.

The AFRC would be located in a designated CO maintenance area, and would not be exempt or presumed to conform. Therefore, the net annual emissions were calculated and found to be below both the conformity *de minimis* level for CO and the regional significance criterion of 10 percent or more of the maintenance area's total emissions budget for CO. The project is not subject to a general conformity analysis.

A record of non-applicability (RONA) has been prepared for this project and can be found in Appendix B.

4.4 Noise

4.4.1 Affected Environment

For determination of impacts to human receptors, noise measurements are weighted to increase the contribution of noises within the normal range of human hearing and decrease the contribution of noises outside the normal range of human hearing. Human hearing is best approximated by using an A-weighted scale (decibels [dBA]). When sound pressure doubles, the dBA level increases by three. Psychologically, most humans perceive a doubling of sound as an increase of 10 dBA (EPA, 1974). Sound pressure decreases with distance from the source. Typically, the amount of noise is halved as the distance from the source doubles (EPA, 1974).

The preferred site is located in a semirural area with little nearby industrial production. Noise levels in the location of the preferred site reflect the small business environment and the roadways adjacent to it. Noise levels in the area would likely range from 60 to 70 dBA, which is typical of commercial areas near roads with heavy traffic (Cowan, 1999).

4.4.2 Consequences

4.4.2.1 Preferred Site

Implementation of the proposed action at the preferred site would result in minor short-term adverse noise impacts from construction activities. Noise levels would be increased during construction and would be most noticeable during building activities. The noise impacts would be restricted to the daylight hours during weekdays. Because of the timing of the construction-related noise, persons outdoors at the nearby businesses could experience nuisance level noise that could interfere with normal conversations. Inside of buildings, the noise could be a minor nuisance and result in a need to increase the sound level of televisions and radios. The minor, temporary impacts from construction noise would be less than significant.

No negative health impacts would result from construction-related noise.

Routine operation of the OMS would result in intermittent vehicle noise that could be audible in the adjacent industrial park. These noises typically would be limited to normal daytime working hours and could result in minor nuisance disturbance.

Training activities would occur on weekends, and increased noise would be associated with those activities; however, these actions would occur during daytime hours, be of short duration, and typically be remote from potentially sensitive receptors. Operation of the AFRC and OMS would not appreciably alter the noise environment.

4.4.2.2 Alternate Site

The impacts of construction and operation of the AFRC at the alternate site would be the same as for the preferred site.

4.4.2.3 No Action Alternative

No construction activities are associated with the no action alternative. Therefore, this alternative would likely not have adverse noise impacts.

4.5 Geology and Soils

4.5.1 Affected Environment

4.5.1.1 Geologic and Topographic Conditions

The AFRC preferred site slopes gently to the south and east. The site has an approximate elevation of 92 feet above mean sea level (amsl). The property is located within the glacial terrain of the Puget Sound Lowlands. Surficial geology consists of well-drained stratified outwash sand and gravel deposited by meltwater from the stagnating and receding Vashon glacier (Associated Earth Sciences, Inc., 2007).

The alternate site is similar to the preferred site in geologic and topographic conditions. It is a level site at an approximate elevation of 115 feet amsl. As with the preferred site, it is located within the glacial terrain of the Puget Sound Lowlands.

4.5.1.2 Soils

According to the Environmental Data Resources, Inc. (EDR) and the Soil Survey of Snohomish County Area, Washington issued by the Natural Resources Conservation Service (NRCS) in July 1983, the following soils are present on the preferred site:

- **Norma.** Norma loam is a Class D, clayey, poorly drained hydric soil that tends to have a high water table or to be shallow with an impervious layer. This soil is located throughout most of the property.
- **Custer.** Custer soils are Class C, poorly drained, hydric soils with slow infiltration rates and moderately fine or fine textures. This fine sandy loam is located on the east side of the property.

Soils at the alternate site are Norma loam.

While both the preferred site and the alternate site have been in agricultural production, neither site is classified as prime or unique farmland.

4.5.2 Consequences

4.5.2.1 Preferred Site

Minor impacts would be likely from implementation of the proposed action at the preferred site. Up to 25 acres of land would be disturbed as a result of construction of the new AFRC and OMS. The land would be cleared and graded and augmented with up to 2 additional feet of appropriate fill soil. The construction would occur on developed land and would not cause significant impacts to natural soils. There are no special qualities associated with the soils or geologic resources at these sites. Implementation of construction BMPs would minimize impacts associated with erosion. These BMPs would include, but not be limited to, installation of silt fencing and sediment traps, and revegetation of disturbed areas as soon as possible, as appropriate. Therefore, potential impacts to geological resources as a result of the preferred site would be minimal.

No impacts to prime or unique farmland would result from implementation of the proposed action at the preferred site.

4.5.2.2 Alternate Site

The impacts of construction and operation of the AFRC at the alternate site would be the same as for the preferred site.

No impacts to prime or unique farmland would result from implementation of the proposed action at the alternate site.

4.5.2.3 No Action Alternative

Under the no action alternative, none of the proposed construction or demolition activities would occur. There would be no change to existing conditions and no impacts to geological and soil resources.

4.6 Water Resources

4.6.1 Affected Environment

4.6.1.1 Streams

The AFRC preferred site is located within the Quilceda-Allen watershed. The site is bordered by Hayho Creek to the east (Figures 4-1 and 4-2). Historically, no natural stream channel flow has occurred within or in the immediate vicinity of the preferred site (B&A, Inc., 2007). Hayho Creek is one of many manmade drainage ditches constructed during the early 20th Century for managing increasing volumes of stormwater and wastewater in the Marysville area. Within the region of the preferred site, Hayho Creek generally flows from west to east and north to south, and eventually drains into the middle fork of Quilceda Creek. Hayho Creek is classified as a Type F stream by the City of Marysville, indicating demonstrated use or provisionally presumed use by salmonid fish, and is regulated as a salmon-bearing stream. The water level of the creek varies depending on the natural beaver activities in the creek. The creek appears to be intermittent and may dry up during summer months (B&A, Inc., 2008). No flow data could be identified for Hayho Creek at this time.

The alternate site also falls within the Quilceda-Allen watershed. A Type F stream, also originally a drainage ditch, extends along the east side of the alternate site. This stream flows north to south in the vicinity of the alternate site and ultimately drains to Quilceda Creek. No other known drainage ditches are present onsite.

4.6.1.2 Hydrogeology /Groundwater

The AFRC preferred site is located at approximately 92 feet amsl and the general topographic gradient on the site is south-southeast (EDR, 2008). The hydrology of the preferred site includes deep historical drainage ditches dug by Drainage District 5, shallow ditches dug by farmers, and subsurface drainage installed by the farmers (such as drain tiles). There are no seeps, springs, streams, or surface water features other than the ditches (B&A, Inc., 2007).

Historically, the preferred site freely drained to deep ditches. All of these drainage features have been altered since 1990 through road construction, water detention, and development activities. Specifically, the drainage ditch east of the site (now Hayho Creek) was blocked and diverted east into a created wetland area as part of the nearby Navy Complex development. Beavers have further blocked this portion of the original drainage ditch, from the eastward bend of Hayho Creek south to 136th Street (Figure 4-2). Hayho Creek continues to drain the southeast corner of the preferred site. The creek is also connected to the roadside ditch along 136th Street, which has been partially blocked through road construction in recent years (B&A, Inc., 2007). Stormwater runoff from 136th Street discharges directly into this open ditch and drains to Hayho Creek.

A sewer line has been installed parallel to the south property line. The sewer line is deeply placed and has interrupted subsurface flow. Water naturally flowed in the coarse-textured subsoils in a southerly direction. The sewer line acts as a subsurface dam and likely causes subsurface water to be retained on the site (B&A, Inc., 2007).

Current hydrology suggests a water table range from approximately 12 to 18 inches during the wetter spring months (B&A, Inc., 2007) to 4 to 6 feet below the ground surface during the summer (AESI, 2007). Minimal groundwater recharge occurs at the preferred site as surface runoff is collected in the adjacent drainage ditches and conveyed to Hayho Creek, which rapidly transports it downstream (B&A, Inc., 2008).

The AFRC preferred site is underlain by the Marysville Trough aquifer, which is a large and shallow unconfined aquifer. Site-specific groundwater flow data are not available. However, the groundwater in this aquifer generally flows in a south to southwest direction. No known water wells are present onsite (EDR, 2008). This aquifer is not used for public potable water supplies, and where private wells are present, the City of Marysville expects to eventually serve the properties with a public water system. Therefore, this aquifer is not a “critical area” as defined by Revised Code of Washington (RCW) 36.70A (City of Marysville, 2005).

The alternate site, approximately 2 miles northeast of the preferred site, is at approximately 119 feet amsl and the general topographic gradient on the site slopes to the south. This site is underlain by the Marysville Trough aquifer. Due to the proximity of the alternate site to the preferred site, the alternate site hydrogeology would likely be similar to that observed at the preferred site. Because the alternate site is at a slightly higher elevation and lacks the groundwater flow disruption observed at the preferred site, the water table at the alternate site is likely deeper than at the preferred site.

4.6.1.3 Floodplains

The preferred site and the alternate site are outside of designated 100- and 500-year flood zones (EDR, 2008).

4.6.1.4 Coastal Zone

Neither the preferred site nor the alternate site is located within a coastal zone.

4.6.2 Consequences

4.6.2.1 Preferred Site

Minor impacts to water resources would occur as a result of implementing the proposed action at the preferred site. An intermittent stream, Hayho Creek, flows along the east side of the preferred site. As this intermittent channel is the primary conduit for stormwater runoff from the north and immediately adjacent to the preferred site, the flow path would be maintained. No culverting of Hayho Creek would be required.

Hayho Creek would be unaltered and would retain the 150-foot buffer required by the City of Marysville. Stormwater runoff from the preferred site would be detained and treated prior to discharge into Hayho Creek and other drainage ditches adjacent to the project. A detailed study of the hydrology of the area would be incorporated into the final engineering plans to determine appropriate stormwater controls for the area.

A construction stormwater permit, which is required of all land-disturbing activities greater than 1 acre in size, would be obtained from the Washington State Department of Ecology prior to construction. The construction contractor must comply with all requirements of the construction stormwater permit to minimize the potential for stormwater from the con-

struction site to impact downstream water resources through increased turbidity, siltation, and erosion. Compliance may include installation and maintenance of appropriate stormwater BMPs to minimize impacts associated with erosion following precipitation. These BMPs could include, but not be limited to, installation of silt fencing and sediment traps, and prompt revegetation of disturbed areas.

Post-construction stormwater controls, including infiltration and detention areas, would be included in the facility design to control levels of stormwater runoff. These controls would minimize the potential for indirect impacts to water resources from stormwater runoff.

4.6.2.2 Alternate Site

The impacts of construction and operation of the AFRC at the alternate site would be similar to those at the preferred site. An unnamed Type F stream, originally a drainage ditch, runs along the east side of the alternate site. No other drainage ditches are present onsite. The required 150-foot stream buffer would be maintained and the drainage ditch would be culverted. Construction and post-construction BMPs and stormwater controls would be the same as described for the preferred site.

4.6.2.3 No Action Alternative

Under the no action alternative, none of the proposed construction activities would occur. There would be no impacts to water resources.

4.7 Biological Resources

4.7.1 Affected Environment

4.7.1.1 Vegetation

Vegetation communities of the Puget Sound Trough region typically consist of prairie, oak woodland, and pine forest. Climate and soil differences account for variations in local vegetation communities. While this region is located west of the Cascades, it is within the rain shadow of the Olympic Mountains. Generally, the plant communities around Puget Sound are similar to others in the *Tsuga heterophylla* Zone in western Washington and Oregon (Franklin and Dyrness, 1988).

The preferred site vicinity consists of a mix of agricultural fields, riparian and wetland areas, mixed deciduous and coniferous forest, and built-up urban land uses. The preferred site has recently been in cultivation growing corn. Other than the riparian and wetland area along the eastern border, the preferred site is within the existing agricultural field. Hayho Creek is vegetated with cattails and sedges when unmaintained and the creek's associated riparian and wetland area contains mainly willow, alder, black cottonwood, and crabapple. Additionally, T 30 N R 5 E Section 4, the preferred site, does not contain Natural Heritage features such as rare plant species or high-quality ecosystems according to the Washington State Department of Natural Resources (WDNR) Washington Natural Heritage Program (WNHP) Township Range Section (TRS) List (WDNR, 2008).

The alternate site is a fallow agricultural field. Vegetation in this field likely consists primarily of common species adapted for rapid colonization, weedy annual plants, and

annual grasses. The owner may have planted a cover crop (likely either an annual grass or a nitrogen-fixing legume such as clover). The unnamed creek that runs along the east side of the alternate site would have vegetation similar to that found in Hayho Creek when unmaintained.

4.7.1.2 Wildlife

The northern part of the Everett area, where both the preferred site and alternate site are located, is characterized by rural residential and agricultural land uses with light industrial uses interspersed. Most of the area is either cultivated for crops or hay, or is in active pasture for cattle. Wildlife habitat value is limited due to the conversion for agricultural uses. There are small scattered areas of higher value scrub-shrub wetlands that provide greater wildlife habitat. Both the preferred site and alternate site are in cultivated fields, so the wildlife habitat value of the sites is relatively low.

Streams and wetlands provide corridor and refuge for wildlife movements and migrations. The preferred site abuts Hayho Creek and associated riparian wetlands. The alternate site abuts an unnamed creek that lacks associated riparian wetlands.

Seasonally flooded agricultural lands may provide inland waterfowl and shorebird feeding and refuge habitat. Large open fields provide foraging habitat to red-tailed hawks and other raptors. Small mammals, reptiles, and amphibians are prevalent in open fields and pastures. Wildlife present in urban and suburban environments, like those to the southwest of the preferred site, typically are adapted to urbanizing conditions and include species such as American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), Norway rat (*Rattus norvegicus*), deer mice (*Peromyscus* spp.), white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and coyote (*Canis latrans*).

The Washington Department of Fish and Wildlife (WDFW) has identified priority anadromous and resident fish in Hayho Creek, as well as the Middle Fork of Quilceda Creek (Figure 4-1). Three anadromous fish species are known to be present in Hayho Creek – coho salmon, chum salmon, and coastal cutthroat trout (Carroll, 1999). The occurrence of these fish is also identified by the City of Marysville on its Critical Areas and Salmonid Habitat Maps.

The unnamed creek that runs along the eastern border of the alternate site is not currently known to be fish bearing. However, the City of Marysville Salmonid Habitat Maps indicate cutthroat trout occur just south of the alternate site.

A wetland and stream inventory was completed in 2001 in support of the 2005 Snohomish County Growth Management Act (GMA) Comprehensive Plan 10-year Update. Wildlife species observed during this field work include bullfrog, Pacific tree frog, white-tailed deer, rabbit, red-tailed hawk, American crow, American robin, black-capped chickadee, dark-eyed junco, house sparrows, and house finches. Beavers also occur in drainages. These species would likely occur at both the preferred and alternate site.

4.7.1.3 Sensitive Species

There are six federally listed species that occur in Snohomish County (USFWS, 2007), including the bull trout (*Salvelinus confluentus*), Canada lynx (*Lynx canadensis*), gray wolf (*Canis lupus*), grizzly bear (*Ursus arctos*), marbled murrelet (*Brachyramphus marmoratus*), and

the Northern spotted owl (*Strix occidentalis caurina*). None of these species have been documented in the preferred site (WDFW, 2008). Additionally, critical habitat has been designated in Snohomish County for the bull trout, the marbled murrelet, and the northern spotted owl. No designated critical habitat for these species, however, occurs in the preferred site (USFWS, 2007).

As noted previously, three anadromous fish species are known to use Hayho Creek – coho salmon, chum salmon, and coastal cutthroat trout. Of these three species, only the chum salmon is federally listed as threatened. The coho salmon and coastal cutthroat trout, however, are both identified as federal species of concern. At the state level, chum salmon have been identified as a state candidate species. In the vicinity of the alternate site, only coastal cutthroat trout are known to occur.

Fifteen federal species of concern occur within Snohomish County. However, both the preferred and alternate sites lack suitable habitat for most of these species and none have been documented at either site.

A letter was sent to the USFWS on November 11, 2008, requesting the agency identify any concerns regarding the proposed action. This letter and the response received from USFWS are included in Appendix A.

The WDNR, through the WNHP Information System, maintains a list of known occurrences of rare plants. The list of plant species known to occur in Snohomish County is included in Appendix C. Only two of these species have current or historic occurrences known from western Snohomish County.

None of the rare plant species listed by the WNHP as occurring in Snohomish County are federally listed as threatened or endangered and only one species, the stalked moonwort (*Botrychium pedunculatum*), is a federal species of concern. This species has no known current or historic occurrences in or adjacent to the preferred or alternate sites.

Three of the rare plant species listed by the WNHP are listed by the state of Washington as threatened – Smoky Mountain sedge (*Carex proposita*), water lobelia (*Lobelia dortmanna*), and Choris' bog-orchid (*Platanthera chorisiana*). There are no current or historic occurrences of these state listed species from or adjacent to the preferred or alternate sites.

4.7.1.4 Wetlands

A preliminary wetland study of the preferred site was completed in 2007 (Bredburg, 2007) and identified a wetland adjacent to Hayho Creek near the easterly bend of the creek at the southeastern border of the preferred site, and another wetland along a drainage ditch bordering the preferred site to the north (Figure 4-2). The National Wetlands Inventory (NWI) online mapping tool indicates an approximately 2-acre palustrine emergent wetland just west of the preferred site and another south across 136th Street NE. The wetlands indicated by NWI are mentioned in the 2007 report. Each of these wetlands would be classified as temporarily flooded.

A 0.3-acre wetland was indicated by NWI near the center of the preferred site (Figure 4-1). The USACE completed a jurisdictional determination that concluded there were no wetlands in the interior of the preferred site and all wetlands on the site were associated

with ditches (USACE 2009). Therefore, the 0.3-acre area indicated as wetland by NWI was determined to not be a wetland.

The NWI online mapping tool indicated no wetlands at the alternate site.

4.7.2 Consequences

4.7.2.1 Preferred Site

Minor impacts to common flora and fauna would result from implementation of the proposed action at the preferred site. Indirect impacts would be associated with loss of low-quality habitat and displacement during construction. No federally or state-listed plant or animal species or communities are known to occur within the project area, with the exception of chum salmon in Hayho Creek. No impacts to this species are anticipated because appropriate construction BMPs would be used.

The few-flowered sedge (*Carex pauciflora*) and the black lily (*Fritillaria camschatcensis*) are known to occur in western Snohomish County. However, the habitat at the preferred site is unsuitable for these rare plant species. The few-flowered sedge and the black lily typically occur in sphagnum bogs and would likely not occur in a cultivated field or in a disturbed riparian area that lacks sphagnum. Therefore, no direct impacts to rare plant species are anticipated.

Hayho Creek is classified as a Type F stream and so requires a minimum 150-foot riparian buffer. The riparian wetlands associated with Hayho Creek were delineated by the City of Marysville and would require a minimum 75-foot buffer. The project design includes these buffers and would avoid impacts to wetlands. As a result, no impacts to the creek, its associated wetland, and anadromous fish would be expected.

4.7.2.2 Alternate Site

Impacts to common flora and fauna would be similar to those described for the preferred site. No wetland impacts would result from project implementation at the alternate site. Impacts to the unnamed creek and any potentially occurring downstream coastal cutthroat trout would be prevented through implementation of construction BMPs similar to those used at the preferred site. As with the preferred site, the alternate site does not contain suitable habitat for any of the identified sensitive plant or wildlife species that could occur in the general vicinity.

4.7.2.3 No Action Alternative

Under the no action alternative, construction activities would not occur. There would be no impacts to biological resources.

4.8 Cultural Resources

“Cultural resource” is a general term used to refer to a wide range of manmade or man-modified resources. Cultural resources include prehistoric and historic archeological sites, historic structures, and traditional cultural places.

Within this section, the terms “significant” and “significance” are used in the context of NEPA and the National Historic Preservation Act (NHPA). When referring to structures, objects, or artifacts, the terms are used as defined in 36 CFR Part 800 for the NHPA. When referring to impacts, the terms are applied relative to their meaning under NEPA.

Regulations implementing Section 106 of the NHPA, 36 CFR Part 800.8, encourage the coordination of the following two processes: (1) the review of possible impacts to the environment under NEPA and (2) the assessment of effects of undertakings required under the NHPA. It is the intent of USACE that this EA support both of these independent reviews.

4.8.1 Definition of Resource

Cultural resources are defined in AR 200-1, Cultural Resources Management, Headquarters, Department of the Army, as follows:

- Historic Properties, protected through the NHPA
- Archaeological Resources, protected through the Archaeological Resources Protection Act (ARPA)
- Cultural Items, as specified in the Native American Graves Protection and Repatriation Act (NAGPRA)
- Sacred Sites, as referenced in the American Indian Religious Freedom Act (AIRFA) and Executive Order 13007
- Collections of artifacts and records pertaining to them as directed in 36 CFR 79

Cultural resources that could be impacted by a proposed action are historic properties and archaeological resources. The Area of Potential Effect (APE) – for purposes of compliance with Section 106 of the NHPA – includes the immediate vicinity of the proposed construction, where direct effects of the construction might affect historic properties. The APE also includes adjacent areas where the setting of existing historic structures may be compromised as a result of construction. Additionally, long-term indirect impacts could occur to cultural or archeological resources resulting from increased human use of an area following implementation of the project.

Cultural resources identified in the project area were evaluated in terms of their significance and also in terms of project impacts. For this project, archival research was conducted and cultural resources were identified and evaluated by performing fieldwork and documentation. Cultural resource significance was determined, and the resources were evaluated in terms of project impacts and effects. Also as a part of this project, the Army coordinated with Native American tribes that traditionally used the project vicinity.

4.8.2 Cultural Resources Regulatory Framework

4.8.2.1 NEPA and Section 106 of the NHPA

NEPA states that the federal government must use all practicable means to preserve important historic, cultural, and natural aspects of national, regional, or local heritage. Section 106 of the NHPA of 1966, as amended, requires agencies to take into account project

effects on districts, sites, buildings, structures, and objects that are listed in or eligible for inclusion in the National Register of Historic Places (NRHP). Federal regulations also coordinate the Section 106 and NEPA processes so that both sets of regulations can be followed at the same time.

In general, for a cultural resource to be eligible for the NRHP, it must be at least 50 years old; possess integrity of physical characteristics; retain the majority of its integrity of location, materials, setting, design, workmanship, feeling, and association; and it must meet at least one of the following four criteria of significance:

1. Association with events that have made a significant contribution to the broad patterns of history
2. Association with the lives of persons significant in local, state, or national history
3. Embodiment of distinctive characteristics of a type, period, or method of construction, or representation of the work of a master, or possession of high artistic values, or representation of a significant and indistinguishable entity (for example, a district) whose components may lack individual distinction
4. Yields, or is likely to yield, information important to an increased understanding of prehistory or history

For this project, Section 106 coordination took place with the State Historic Preservation Officer at the Washington Department of Archaeology and Historic Preservation (DAHP) in Olympia, Washington, and with the potentially affected Native American tribes: the Tulalip Tribes of Washington and the Stillaguamish Tribe (Appendix A).

4.8.2.2 State Regulations

State regulations include the State Environmental Policy Act (SEPA), which is codified in the RCW 43.21C and the Washington Administrative Code (WAC) 197-11. These laws require that project proponents propose actions that reduce or control impacts to important cultural resources. In addition, the Archaeological Sites and Resources Act (RCW 27.53) prohibits knowingly disturbing precontact or historical archaeological sites on public or private land without a permit from the SHPO. The Indian Graves and Records Act (RCW 27.44) prohibits destroying Native American graves and requires that discovered remains be reinterred under the supervision of the appropriate tribe. Finally, state regulations also protect the locations of archaeological sites by indicating that they should not be disclosed to the general public (RCW 42.56.300).

4.8.3 Affected Environment

4.8.3.1 Prehistoric and Historic Background

The precontact, ethnographic, and historic cultural context for this area has been restated in several cultural resource inventory reports within the last 8 years. Blukis, Onat, and Cowan (2007) provide a good overview of the project vicinity's ethnographic history. Additional detailed ethnographic context can be found in the Handbook of North American Indians Volume 7 Northwest Coast (Sturtevant and Suttles, 1990).

Dampf et al. provide a good context for the Tulalip reservation and the historical era in the project vicinity (2004). The history of Snohomish County has been thoroughly documented in at least two multivolume resources (Whitfield 1926 v. 1 and v. 2, Cameron, 2005). The early history of the region is summarized by Robinson (2003) and a history of Marysville, with detailed and theme-specific information on the Navy and wartime history of the county, is available through the League of Snohomish County Heritage Organizations Web page (2008a, 2008b) and through www.snohomishhistory.com.

Based on the DAHP research and cultural and environmental contexts for the project area, several conclusions can be drawn about the types of cultural resources that may be encountered in the APE. Historic resources are likely to be affiliated with railroads, agriculture, and settlement, and possibly mining and commerce. Ethnohistoric and precontact resources may be affiliated with fishing, floral, and faunal resource procurement and processing, and settlement.

4.8.3.2 Status of Cultural Resource Inventories and Section 106 Consultations

Research was conducted at the DAHP to determine the locations and types of previously documented archaeological sites, historic structures, and other cultural resources within 1 mile of the preferred site APE. Whether cultural resources are present in an area is dependent on the historical use of the area, as well as environmental resources. It is important to identify the area's environmental setting (for example, landforms, topography, elevation, water, flora, fauna, mineral resources, etc.) as it relates to past human use. Therefore, the environmental context of the project area was also researched.

Table 4-2 summarizes the SHPO literature review of previous cultural resource project work in the project vicinity. A total of five cultural resource studies have been previously conducted within 1 mile of the preferred site APE. Most of these investigations did not yield any cultural resources, and no known cultural resources are located in the preferred site APE.

TABLE 4-2
DAHP Literature Review Summary ^a
Final EA--Everett, Washington Area

DAHP NADB #	Year	Report Title	Authors/ Affiliation	Results
1351215	2008	Letter to Allyson Brooks regarding Request for Determination of Effects Concurrence Interstate 5 Marysville to Stillaguamish River Vicinity Project	Chidley	No effect, no sites
1343310	2003	A Cultural Resource Survey of the City of Marysville's State Avenue: 116 th Street NE to 136 th Street NE Widening Project, Snohomish County, Washington	Robinson	No effect, no sites
1348805	2006	R-0301 State Avenue Roadway Improvement-136 th Street NE to 152 nd Street NE Road Widening Project, Snohomish County, Washington—Final	Cooper and Sparks/Jones & Stokes	No effect, no sites
1348608	2006	Archaeological Review for 51 st Avenue NE Intersection Improvements for Snohomish County Department of Public Works	Kiers / BOAS	No effect, no sites

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1348805	2006	R-0301 State Avenue Roadway Improvement-136 th Street NE to 152 nd Street NE Road Widening Project, Snohomish County, Washington—Final	Cooper and Sparks/Jones & Stokes	No effect, no sites

^a SHPO literature review conducted by Raena Ballantyne DeMaris in October 2008.

The cultural resource field survey for this project was intended to identify, document, evaluate, and assess impacts to cultural resources in the APE. The fieldwork methodology adhered to federal and state standards. An intensive-level inventory survey of the preferred site APE included an aboveground pedestrian survey with transects spaced 15 meters apart, as well as subsurface presence-absence shovel testing. Cultural resources identified in the field were documented according to state and federal standards. The cultural resource survey report was submitted to the Washington SHPO for concurrence (Appendix A).

The proposed project area is an active agricultural field with no existing structures. Based upon review of existing data and field observations, no structures listed on the NRHP, eligible for listing on the NRHP, or potentially eligible for listing on the NRHP occur within one mile of the proposed location.

The field survey for this project identified one historic isolate (CH2M HILL, 2008). By definition, isolated artifacts do not contribute to the broad patterns of local, state, or national history because they represent discrete behavior and lack context. Therefore, this isolated artifact is not eligible for listing on the NRHP and cannot be considered a significant cultural resource. The subsurface investigation did not result in observation or identification of any cultural resources.

As a part of the project, the U.S. Army's 70th Regional Support Command (RSC) initiated coordination with the Tulalip Tribes of Washington and the Stillaguamish Tribe. Letters describing the project and the location of the preferred and alternate sites were sent to the tribes on October 31, 2008.

4.8.3.3 Native American Resources

As a part of the project, the U.S. Army's 70th Regional Support Command (RSC) initiated coordination with the Tulalip Tribes of Washington and the Stillaguamish Tribe. Letters describing the project and the location of the preferred and alternate sites were sent to the tribes on October 31, 2008.

Based upon review of existing data, no known Native American resources are located in the APE.

4.8.4 Consequences

Project impacts to cultural resources are evaluated according to the Criteria of Adverse Effect (25 CFR 800.5). Cultural resource impacts are divided into two categories: direct effects and indirect effects. Direct project impacts to historic properties include physical destruction of the property and damage, alteration, or removal of a portion of the historic property. Such direct effects would result from project construction and implementation.

Indirect impacts to cultural resources include alterations, modifications, destruction, or removal of cultural resources during operation and maintenance of the proposed facility. Such indirect impacts may include (but are not limited to) human destruction caused by increased human activity in the area from Army personnel.

4.8.4.1 Preferred Site

Based on the survey findings, the Army, as the lead Federal agency has determined that the project will have no effect on historic properties as per 36CFR800.4(1)(d). Washington SHPO concurred with this finding in a letter dated February 17, 2009 (Appendix A).

4.8.4.2 Alternate Site

The alternate site has not undergone a cultural resource evaluation. Hence, impacts to cultural resources at the alternate site are unknown. Should this site be selected for implementation of the proposed action, a cultural resource evaluation would be required and the USAR would complete all necessary coordination or consultation with the SHPO prior to development.

4.8.4.3 No Action Alternative

Under the no action alternative, no impacts would occur to cultural resources as no construction would take place.

4.9 Socioeconomics

4.9.1 Affected Environment

The region of influence (ROI) selected for consideration is the three-county (Island, King, and Snohomish) Primary Metropolitan Statistical Area (PMSA) of Seattle-Bellevue-Everett in the State of Washington. It is anticipated that any impacts associated with construction and operation of the AFRC would be confined to this functional economic region.

4.9.1.1 Economic Development

Total full- and part-time employment in the three-county ROI numbered over 1.8 million in 2006, with the largest share (almost 81 percent) contributed by King County, as shown in Table 4-3. The retail trade sector of the economy supports the greatest share of jobs in the ROI (9.9 percent of non-farm employment), followed by state and local government (9.6 percent), and manufacturing (9.3 percent). Military employment accounted for

1.3 percent of non-farm jobs as shown in Table 4-3. There are noticeable differences in the composition of the economy across the counties of the ROI. While manufacturing accounted for just over 9 percent of full- and part-time non-farm employment in the ROI, its share was 16 percent in Snohomish County. The contribution of employment by the Federal government was 2.6 percent for the ROI, compared to almost 27 percent for Island County (attributable almost exclusively to Naval Air Station Whidbey Island). It was estimated by the State of Washington Office of Financial Management that employment at military installations numbered over 10,000 in Island County and 4,500 in Snohomish County as of 2003. For Island County, military base payroll made up over 50 percent of aggregate countywide wages and salaries.

TABLE 4-3
Full- and Part-Time Employment by County and Industry (2006)
Final EA--Everett, Washington Area

	Island	King	Snohomish	Tri-County Region
Total employment	38,154	1,506,591	318,597	1,863,342
Wage and salary employment	26,369	1,233,816	258,321	1,518,506
Proprietors employment	11,785	272,775	60,276	344,836
Farm proprietors employment	298	1,219	1,285	2,802
Nonfarm proprietors employment	11,487	271,556	58,991	342,034
Farm employment	414	1,901	1,959	4,274
Nonfarm employment	37,740	1,504,690	316,638	1,859,068
Private employment	24,281	1,335,235	272,434	1,631,950
Forestry, fishing, related activities	(D)	4,729	1,635	6,364
Mining	(D)	1,298	370	1,668
Utilities	101	1,033	128	1,262
Construction	2,944	90,083	29,065	122,092
Manufacturing	1,174	120,972	50,835	172,981
Wholesale trade	360	70,015	8,682	79,057
Retail trade	3,943	142,087	38,708	184,738
Transportation and warehousing	360	53,871	5,212	59,443
Information	356	78,541	6,021	84,918
Finance and insurance	869	71,403	13,087	85,359
Real estate and rental and leasing	2,366	82,499	12,956	97,821
Professional and technical services	1,777	138,927	15,588	156,292
Management of companies and enterprises	153	25,221	1,528	26,902
Administrative and waste services	1,549	88,637	15,439	105,625
Educational services	631	30,467	3,568	34,666

TABLE 4-3
Full- and Part-Time Employment by County and Industry (2006)
Final EA--Everett, Washington Area

	Island	King	Snohomish	Tri-County Region
Health care and social assistance	2,184	127,697	25,709	155,590
Arts, entertainment, and recreation	1,022	39,961	6,451	47,434
Accommodation and food services	2,024	94,187	19,900	116,111
Other services, except public administration	2,142	73,607	17,552	93,301
Government and government enterprises	13,459	169,455	44,204	227,118
Federal, civilian	1,325	21,409	2,345	25,079
Military	8,795	7,076	7,370	23,241
State and local	3,339	140,970	34,489	178,798
State government	435	54,473	5,347	60,255
Local government	2,904	86,497	29,142	118,543

Source: BEA, 2009, <http://www.bea.gov/regional/reis/default.cfm?catable=CA25N&series=NAICS>

4.9.1.2 Demographics

The population of Snohomish County in 2008 was estimated at 696,600, as shown in Table 4-4. Between 2000 and 2008, the number of residents in the county increased by just over 90,500 at an average annual rate of 1.8 percent. This rate of increase compared to 1.4 percent for the State of Washington. The larger communities in the county experienced a rate of population increase below that of the county, with the exception of Marysville, which grew at an average annual rate of 4.9 percent over the period, as shown in Table 4-4. A number of the intermediate-sized communities also registered substantial average annual growth rates: Arlington (4.6 percent), Mill Creek (5.6 percent), and Monroe (2.3 percent).

TABLE 4-4
Population of Snohomish County and Communities (2000 and 2008)
Final EA--Everett, Washington Area

	2000 Census	2008 Estimate	Change 2000-2008		
			Numeric	Percentage	Average Annual Percent
Snohomish County	606,024	696,600	90,576	14.9%	1.8%
Unincorporated	291,142	324,320	33,178	11.4%	1.4%
Incorporated	314,882	372,280	57,398	18.2%	2.1%
Communities					
Arlington	11,927	17,050	5,123	43.0%	4.6%
Bothell (part)	13,965	15,730	1,765	12.6%	1.5%

TABLE 4-4
Population of Snohomish County and Communities (2000 and 2008)
Final EA--Everett, Washington Area

	2000 Census	2008 Estimate	Change 2000-2008		
			Numeric	Percentage	Average Annual Percent
Brier	6,383	6,485	102	1.6%	0.2%
Darrington	1,136	1,500	364	32.0%	3.5%
Edmonds	39,544	40,760	1,216	3.1%	0.4%
Everett	91,488	102,300	10,812	11.8%	1.4%
Gold Bar	2,014	2,210	196	9.7%	1.2%
Granite Falls	2,347	3,290	943	40.2%	4.3%
Index	157	160	3	1.9%	0.2%
Lake Stevens	6,361	14,560	8,199	128.9%	10.9%
Lynnwood	33,847	35,680	1,833	5.4%	0.7%
Marysville	25,315	37,060	11,745	46.4%	4.9%
Mill Creek	11,525	17,770	6,245	54.2%	5.6%
Monroe	13,795	16,550	2,755	20.0%	2.3%
Mountlake Terrace	20,362	20,930	568	2.8%	0.3%
Mukilteo	18,019	20,050	2,031	11.3%	1.3%
Snohomish	8,494	9,020	526	6.2%	0.8%
Stanwood	3,923	5,445	1,522	38.8%	4.2%
Sultan	3,344	4,550	1,206	36.1%	3.9%
Woodway	936	1,180	244	26.1%	2.9%
<u>Washington State</u>	5,894,143	6,587,600	693,457	11.8%	1.4%
Unincorporated	2,374,593	2,527,130	152,537	6.4%	0.8%
Incorporated	3,519,550	4,060,470	540,920	15.4%	1.8%

Source: State of Washington, Office of Financial Management,
<http://www.ofm.wa.gov/pop/april1/default.asp>

4.9.1.3 Housing

Between 1990 and 2000 the number of housing units in the ROI increased by more than 153,000 from just over 857,000 to over 1 million at an average annual rate of 1.7 percent. Between 2000 and 2008, the number of units increased by more than 127,000 at an average annual rate of 1.5 percent. The most rapid growth in housing occurred in Snohomish County between 1990 and 2000 (2.5 percent annually) and in Island County between 2000 and 2008 (2.2 percent annually), as shown in Figure 4-3.

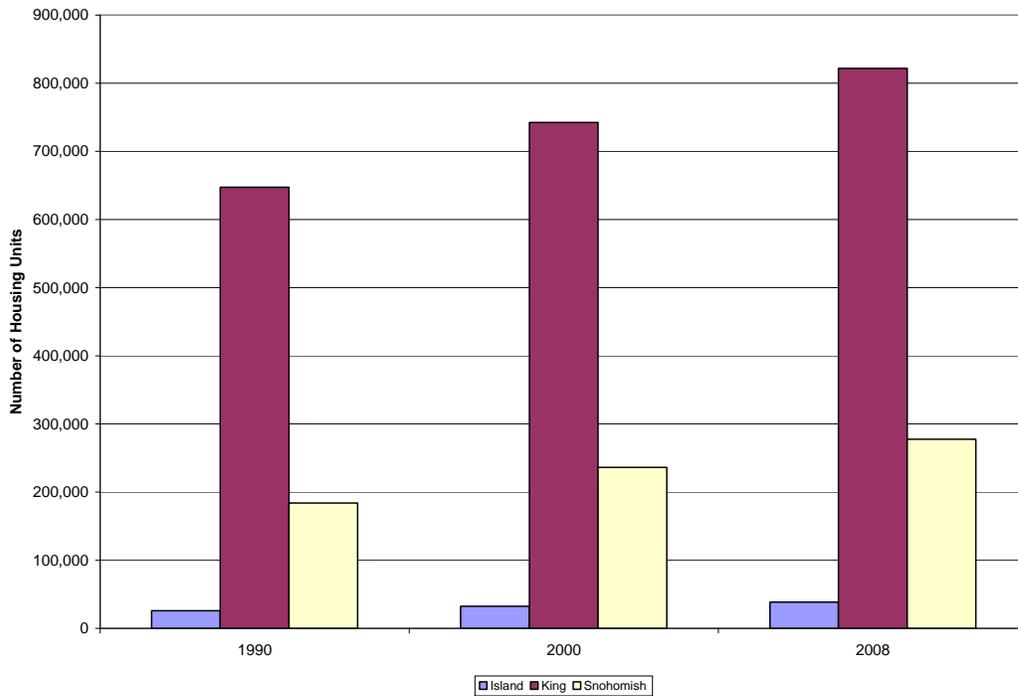


FIGURE 4-3
 Number of Housing Units by County (1999, 2000, and 2008)
Final EA, Everett, Washington, Area

Home construction (as measured by the number of dwelling units authorized for construction through the permitting process) increased steadily in King County (with the exception of 2003). The number of units permitted for construction in King County increased from 9,855 in 2001 to 15,579 in 2007, as shown in Figure 4-4. In Snohomish County, the upward trend ended in 2005 and was followed by a sharp decline with fewer units permitted in 2007 than in 2001. Construction activity also declined in Island County after 2004.

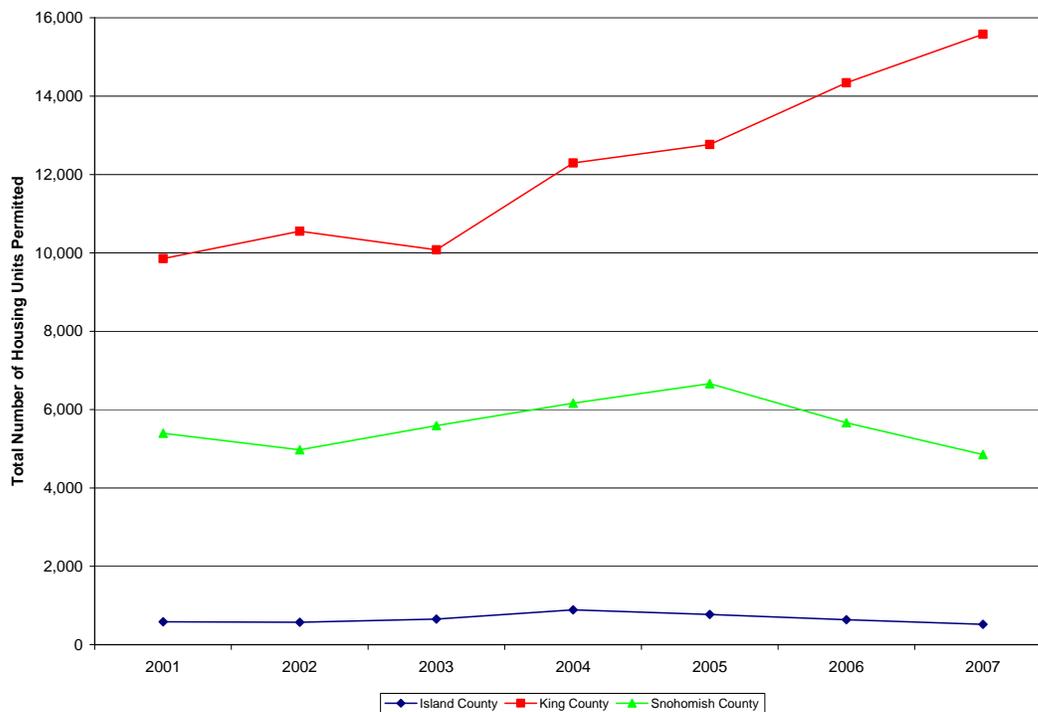


FIGURE 4-4
 Number of Housing Units Permitted for Construction by County (2001-2007)
Final EA, Everett, Washington, Area

Median family income in 2000 in Snohomish County (\$60,726) exceeded that of the state (\$53,760). The lowest value in Snohomish County was for the small community of Index (\$32,000) and the highest value was for Mill Creek (\$87,263).

Of the total State of Washington population, 10.6 percent fell below the poverty level in 1999 (Table 4-5). The corresponding value for Snohomish County was 6.9 percent. Some communities in the county registered values far higher, e.g., Everett (12.9 percent), Index (16.9 percent), and Stanwood (12.0 percent).

TABLE 4-5
 Selected Economic Indicators for Snohomish County and Communities (2000)
Final EA--Everett, Washington Area

	Total Population	Minority Population	Percent Minority Population	Median Family Income (1999)	Per Capita Income (1999)	Percent of Population Below Poverty Level (1999)
State of Washington	5,894,121	1,241,631	21.1%	\$53,760	\$22,973	10.6%
Snohomish County	606,024	100,826	16.6%	\$60,726	\$23,417	6.9%
Arlington	11,713	1,473	12.6%	\$51,941	\$19,146	7.2%
Bothell	30,150	4,569	15.2%	\$68,580	\$26,483	5.1%

TABLE 4-5
 Selected Economic Indicators for Snohomish County and Communities (2000)
Final EA--Everett, Washington Area

	Total Population	Minority Population	Percent Minority Population	Median Family Income (1999)	Per Capita Income (1999)	Percent of Population Below Poverty Level (1999)
Brier	6,383	987	15.5%	\$77,226	\$26,675	1.8%
Darrington	1,136	68	6.0%	\$44,063	\$17,384	8.9%
Edmonds	39,515	5,503	13.9%	\$66,126	\$30,076	4.6%
Everett	91,488	20,212	22.1%	\$46,743	\$20,577	12.9%
Gold Bar	2,014	202	10.0%	\$48,152	\$18,712	7.1%
Granite Falls	2,347	294	12.5%	\$52,150	\$17,425	7.2%
Index	157	10	6.4%	\$32,000	\$22,023	16.9%
Lake Stevens	6,361	613	9.6%	\$68,250	\$22,943	4.4%
Lynnwood	33,847	9,838	29.1%	\$51,825	\$19,971	9.5%
Marysville	25,315	3,553	14.0%	\$55,796	\$20,414	5.6%
Mill Creek	11,525	2,341	20.3%	\$87,263	\$36,234	3.5%
Monroe	13,795	2,628	19.1%	\$55,793	\$18,912	8.9%
Mountlake Terrace	20,362	5,046	24.8%	\$52,117	\$21,566	8.0%
Mukilteo	18,019	3,496	19.4%	\$79,487	\$29,134	3.4%
Snohomish	8,494	752	8.9%	\$61,034	\$20,917	7.2%
Stanwood	3,923	411	10.5%	\$52,996	\$16,775	12.0%
Sultan	3,344	362	10.8%	\$51,038	\$18,822	7.0%
Woodway	936	58	6.2%	\$109,428	\$51,613	2.4%

Source: U.S. Census, American Factfinder, http://factfinder.census.gov/home/saff/main.html?_lang=en

4.9.2 Consequences

4.9.2.1 Preferred Site

The Economic Impact Forecast System (EIFS) model was used to estimate the economic effects of the proposed action and the results are compared to rational threshold values (RTVs) as a means of evaluating the significance of these effects in relation to the regional economy. RTVs are positive and negative percent changes in sales volume, income, employment, and population that represent an acceptable range around the maximum historic fluctuations that have occurred within the ROI over the period 1969 through 2000. The EIFS model report containing model inputs, outputs, and significance measures for the year of maximum effects is provided as Appendix D.

Construction Phase. Construction of the AFRC complex under the proposed action would likely last approximately 2 years (May 2009 to May 2011). In the short term, expenditures in the local economy for goods and services and direct employment associated with construction would increase sales volume, employment, and income in the ROI. It is estimated that the total cost to construct the AFRC complex could be approximately \$65 million. The economic benefits would be temporary, lasting only for the duration of the construction period. It is assumed that capital expenditures for construction of the proposed AFRC complex would be spread annually over the 2-year construction period in proportion to the respective duration in each calendar year. The resulting expenditure profile could include \$20.4 million in 2009, \$30.6 million in 2010, and \$12.7 million in 2011.

The forecast employment and income effects associated with the proposed construction activity for each year are shown in Table 4-6. The greatest effect would occur in 2010, when total employment in the ROI would increase by 441 jobs throughout the year. These jobs would include 111 direct construction jobs and 330 secondary jobs associated with (1) the procurements of good, materials, and services and (2) spending (personal consumption expenditures) by the construction workers. Effects in the prior and subsequent year of construction would be less.

TABLE 4-6
Employment and Income Effects, by Year
Final EA--Everett, Washington Area

	2009	2010	2011
Construction Expenditures	\$20,390,000	\$30,588,000	\$12,745,000
Employment			
Total	294	441	184
Direct	74	111	46
Induced	220	330	138
Income			
Total	\$13,920,590	\$20,880,880	\$8,700,368
Direct	\$3,488,870	\$5,233,304	\$2,180,544
Induced	\$10,431,720	\$15,647,580	\$6,519,824

Source: EIFS and CH2M HILL (2009)

This employment effect in 2010 corresponds to a small fraction of 1 percent of regional baseline employment. Suppliers in the ROI would experience a short-term increase in the sale of construction-related materials and provision of services. It is anticipated that the construction workers required for the proposed action would be available in the regional workforce.

Table 4-7 presents estimates of both the direct and secondary effects of construction activities and the induced effects in related industrial sectors that would be affected by construction expenditures and employment in 2010, when effects would be most evident. The percentage increases in sales volume, income, and employment would be relatively

minor and would be within the range of historical fluctuations in those economic parameters, as represented by the RTVs for the region. Short-term minor beneficial effects to the regional economy would likely occur from the construction activities required to implement the proposed action.

Operations Phase. No measurable change would occur in long-term employment as a result of the BRAC action, because the proposed BRAC action involves the relocation of existing personnel within the ROI. The facilities from which the units would be relocated would be closed; therefore, maintenance and repair expenditures associated with them would no longer occur. It is anticipated that maintenance and repair expenditures for the proposed AFRC would not exceed those for the existing facilities and that long-term impacts would be negligible. It is not expected that there would be any relocation of persons and families into the area as a result of the GTA action. Because the six new units would be reserve units, it is expected that the reservists would come from the local area. The additional income from reserve activities and training would be a minor permanent economic benefit to the region.

TABLE 4-7
EIFS Model Output for Proposed Construction Activities, 2010
Final EA--Everett, Washington Area

Indicator	Projected Change	Percentage Change	Range of RTVs (Percent)
Sales Volume—Direct	\$30,588,000	—	N/A
Sales Volume—Induced	\$91,458,120	—	N/A
Sales Volume—Total	\$122,046,100	0.08	-11.6 to 9.86
Income—Direct	\$5,233,304	—	N/A
Income—Induced	\$15,647,580	—	N/A
Total—Income ^a	\$20,880,880	0.03	-7.06 to 9.57
Employment—Direct	111	—	N/A
Employment—Induced	330	—	N/A
Total Employment	441	0.03	-8.11 to 4.4
Local Population	0	0	N/A
Local Off-Base Population	0	0	N/A

^a Place of work income

RTV = rational threshold value

N/A = not applicable

4.9.2.2 Alternate Site

The impacts of construction and operation of the AFRC at the alternate site would be the same as for the proposed action.

4.9.2.3 No Action Alternative

No socioeconomic impacts would result from the no action alternative.

4.10 Environmental Justice

4.10.1 Affected Environment

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994), requires federal agencies to achieve environmental justice “to the greatest extent practicable” by identifying and addressing “disproportionately high adverse human health or environmental effects of...activities on minority populations and low income populations.”

As defined by the “Final Guidance for Incorporating Environmental Justice Concerns in EPA’s NEPA Compliance Analysis” (EPA 1998), minority and low-income populations are identified where either:

- The minority or low-income population of the affected area is greater than 50 percent of the affected area’s general population; or
- The minority or low-income population percentage of the area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

An environmental justice impact could occur if a significant unavoidable environmental impact associated with the proposed project were to occur disproportionately in areas having either a minority or low-income population of greater than 50 percent compared to areas containing less than 50 percent minority or low-income populations.

In the absence of significant unavoidable impacts associated with implementation of the proposed action at the preferred site, no disproportionately high adverse human health or environmental effects on minority populations or low-income populations would likely occur.

4.10.2 Consequences

4.10.2.1 Preferred Site

Impacts of the implementation of the proposed action at the preferred site would be confined to the site and would not extend into the surrounding community. The proposed action implemented at the preferred site would not disproportionately impact minority or low-income populations.

4.10.2.2 Alternate Site

The proposed action implemented at the alternate site would not disproportionately impact minority or low-income populations.

4.10.2.3 No Action Alternative

The no action alternative would not disproportionately impact minority or low-income populations.

4.11 Protection of Children

4.11.1 Affected Environment

The USAR follows the guidelines specified for the protection of children in EO 13045 – *Protection of Children from Environmental Health Risks and Safety Risk* (Federal Register: April 23, 1997, Volume 62, Number 78). This EO requires that federal agencies make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that policies, programs, and standards address disproportionate risks to children that result from environmental health or safety risks. The proportion of individuals in Snohomish County who are below the age of 18 was 25.2 percent in 2000. The corresponding values for the State of Washington and the nation were 25.7 percent and 24.6 percent, respectively.

4.11.2 Consequences

4.11.2.1 Preferred Site

Impacts of the implementation of the proposed action at the preferred site would be confined to the site and would not extend into the surrounding community. There would be no access to the proposed USAR by children. The proposed action implemented at the preferred site would not create any environmental health or safety risks for children.

4.11.2.2 Alternate Site

The proposed action implemented at the alternate site would not create any environmental health or safety risks for children.

4.11.2.3 No Action Alternative

The no action alternative would not create any environmental health or safety risks for children.

4.12 Transportation

Information in this section that relates to the preferred site was derived from a traffic impact analysis by Gibson Traffic Consultants (GTC) for the proposed Northpointe Industrial Park (development) in the City of Marysville (2008). Information in this section that relates to the alternate site has been derived from the Transportation Element of the Comprehensive Plan (City of Arlington, 2005).

4.12.1 Affected Environment

4.12.1.1 Road Network

The primary roadways in the preferred site vicinity are 136th Street NE, 152nd Street NE, Smokey Point Boulevard, and 51st Avenue NE. Smokey Point Boulevard, 152nd Street NE, and 51st Avenue NE are primarily two-lane roadways in the site vicinity; however, Smokey Point Boulevard widens to a five-lane section south of the site.

Along the development's southern frontage, 136th Street NE is a three-lane section with one lane in each direction and a center two-way-left-turn-lane (TWLTL). The posted speed limit along 136th Street NE is 35 miles per hour (mph). The stub roads to which the development would have access (140th Street NE, 144th Street NE, and 40th Avenue NE) are all two-lane roadways; these roadways are all two-way stop-control intersections at the intersections with Smokey Point Boulevard, 51st Avenue NE, and 152nd Street NE, respectively.

The primary roadways in the vicinity of the alternate site are 51st Street NE and 172nd Street NE. 51st Street NE is a 2-lane collector arterial that serves the airport and industrial area, and 172nd Street NE is a State Highway (SR 531) that provides the main point of entry into the airport and industrial area (City of Arlington, 2005).

4.12.1.2 Existing Intersection Level of Service

GTC performed an analysis of the existing intersection level of service (LOS). The analysis showed that the majority of the study intersections operate at acceptable LOSs during the afternoon peak-hour. The following four intersections operate at LOS F under existing conditions:

- 152nd Street NE at Smokey Point Boulevard
- 136th Street NE at 51st Avenue NE
- 100th Street NE at 51st Avenue NE
- 88th Street NE at 51st Avenue NE

These four intersections are planned for improvements by either the City of Marysville or Snohomish County. The remaining study intersections all operate at LOS D or better under the existing conditions, as follows:

- 136th Street NE at Smokey Point Boulevard C 23.2 sec
- 136th Street NE at 39th Avenue NE B 13.2 sec
- 136th Street NE at 51st Avenue NE F 70.1 sec

At the alternate site, the intersection of 51st Street NE and 172nd Street NE operates at LOS D (City of Arlington, 2005). The City of Arlington proposes traffic improvements in the vicinity of the alternate site, including widening 51st Street NE to three lanes and constructing a five-lane extension of 51st Street NE to the north of the 172nd Street NE intersection to 188th Street NE. This extension is planned for construction in 2009.

4.12.2 Consequences

4.12.2.1 Preferred Site

As part of the proposed action at the preferred site, 30 full-time and approximately 630 part-time employees/military personnel would be assigned to the AFRC. The full-time employees would increase the amount of traffic using 136th Street NE daily; however, this would be a minor impact on traffic or transportation. The part-time personnel would be associated primarily with weekend training, when the traffic load entering the industrial park would be reduced. Additionally, the trainees would be spread across 3 weekends each month, resulting in approximately 210 trainees on any given weekend. The increased weekend traffic would likely not have a significant impact on traffic and transportation.

4.12.2.2 Alternate Site

The impacts of construction and operation of the AFRC at the alternate site would be the same as for the proposed action, a minor increase in traffic on 51st Street NE and 172nd Street NE, primarily on weekends during training exercises.

4.12.2.3 No Action Alternative

No impacts related to transportation would occur under the no action alternative.

4.13 Hazardous and Toxic Substances

4.13.1 Affected Environment

4.13.1.1 Hazardous Substance Use, Storage, and Disposal

The AFRC is primarily a training and education facility with associated storage and vehicle maintenance areas. As such, a minimal amount of hazardous and toxic substances would be used or stored onsite. Anticipated hazardous materials used and stored onsite would include petroleum products associated with vehicle maintenance such as gasoline, diesel fuel, and engine oil; vehicle paint and paint stripping agents; oily rags; and various vehicle fluids.

The proposed project area was recently under cultivation. No information was identified for current or historical hazardous substance usage, storage, or disposal on the site (EDR, 2008). However, the recent use of the preferred site as a cultivated field and its historical agricultural use suggest that herbicides and pesticides may have been used at this site.

4.13.1.2 Site Contamination and Cleanup

No Installation Restoration Program (IRP) sites are present in the vicinity of the preferred site.

4.13.2 Consequences

4.13.2.1 Preferred Site

Construction and operation of the AFRC would likely generate small amounts of hazardous or toxic substances and change the manner in which existing hazardous or toxic substances are generated, stored, or disposed of on the preferred or alternate site. The proposed AFRC would include an OMS that would be used to perform limited maintenance on military vehicles and equipment. Activities inside the OMS may include general vehicle servicing such as oil changes and preventative maintenance checks. Additional support facilities would include POV parking, MEP, a wash platform, a fuel storage and dispensing system, and work bays. Operation of the AFRC would likely result in use or generation of small amounts of regulated substances, including cleaning solvents, mineral spirits, and oils and lubricants for vehicles and equipment.

Hazardous wastes generated by vehicle maintenance and other activities would be disposed of offsite according to federal regulations. Controlled waste would be stored in the north end of the vehicle maintenance shed (VMS) for a maximum of 90 days prior to offsite disposal. All storage, transport, and disposal of hazardous wastes at the AFRC would be

accomplished in accordance with state and federal regulations. In addition, any hazardous wastes generated would be transferred from the VMS to appropriate sites for ultimate disposal.

4.13.2.2 Alternate Site

The impacts of construction and operation of the AFRC on hazardous or toxic substances at the alternate site would be the same as for the preferred site.

4.13.2.3 No Action Alternative

No impacts related to hazardous or toxic substances would occur under the no action alternative. The no action alternative would not increase or decrease the existing generation or use of hazardous or toxic substances, nor would it change the manner in which existing hazardous or toxic substances are stored or disposed.

4.14 Cumulative Effects Summary

Known or anticipated construction projects adjacent to or near the preferred site include the following:

- **Northpointe Industrial Park.** An approximately 78-acre industrial subdivision made up of as many as 38 industrial lots varying in size from 1 to 3 acres, located north of 136th Street NE, south of 152nd Street NE, east of Smokey Point Blvd., and west of 51st Avenue NE. The preferred site is within this industrial park. Development of the park would include clearing, grading, and augmenting the site with 2 feet of fill to provide proper drainage. Building pads and roads would be constructed and utilities would be installed in the roadways. The site developer would procure all necessary permits and approvals, including Preliminary and Final Binding Site Plan Approval; Clearing and Grading Permits; Road, Storm, and Utilities Design Approval; Right-of-Way Use Permits; and Building Permits and Individual Site Plan Approvals, including Individual Storm Drainage Approvals.
- **Allen Creek Community Church.** A proposed conversion of an approximately 16,000-ft² unfinished industrial warehouse building to a church, and construction of a 158-space parking area and associated improvements. The Allen Creek Community Church would be located on 2.11 acres south of 136th Street at the intersection of 39th Avenue NE and 136th Street and constructed in 2009.

Cumulative effects include short-term impacts to air quality if construction projects overlap in time. Cumulative effects during the operation phase of the proposed action would include increased traffic on adjacent streets when the industrial park is occupied and the church is in service. The majority of traffic increases would be during the week when businesses in the industrial park would be open. Weekend traffic would be increased by church attendance and ANG training.

4.15 Mitigation Summary

Implementation of the proposed action would not result in significant impacts to environmental or socioeconomic resources. Because all impacts would be less than

significant, no mitigation is proposed. This section summarizes the procedures and project design features that would be implemented as part of the proposed action to avoid or minimize impacts to the extent practicable.

The USAR would obtain any required permits, approvals, and certifications prior to implementing construction activities.

Personnel conducting construction activities would strictly adhere to all applicable occupational safety requirements during construction activities.

Specific project design features that would be implemented to minimize or eliminate impacts from fugitive dust include use of sprinkling, irrigation, and/or mulching to prevent generation of airborne dust and the use of revegetation and mulching as soon as work is complete to minimize the exposure of bare soil.

Appropriate BMPs that would be implemented and maintained to minimize the potential for stormwater runoff and resultant downstream impacts to water quality during construction could include, but would not be limited to, use of silt fencing and sediment traps, and revegetation/mulching of disturbed areas as soon as practicable.

5.0 Findings and Conclusions

5.1 Findings

Table 5-1 summarizes the consequences of the proposed action at the preferred site and the alternate site. The following sections provide a summary of the anticipated impacts of each alternative.

5.1.1 Consequences of Implementation of the Proposed Action at the Preferred Site

Implementation of the proposed action at the preferred site would result in minor short-term adverse impacts to air quality from construction, negligible adverse impacts to air quality from operation of reserve generators and building heating and air conditioning, temporary construction-related noise, minor alteration of topography and soils, *de minimis* impacts from construction and post-construction stormwater, minor adverse impacts on common flora and fauna, and minor generation of construction-related waste. There would be no impacts to other resources that were evaluated in this EA.

5.1.2 Consequences of Implementation of the Proposed Action at the Alternate Site

Implementation of the proposed action at the alternate site would result in impacts similar to those of the proposed action. However, implementation at the alternate site would not impact wetlands.

TABLE 5-1
 Summary of Potential Environmental and Socioeconomic Consequences
 Final EA--Everett, Washington Area

Resource	Environmental and Socioeconomic Consequences		
	No Action	Implementation at the Preferred Site	Implementation at the Alternate Site
Land Use	No Change from Baseline Conditions	No Impact	No Impact
Air Quality	No Change from Baseline Conditions	Minor short-term impact from construction-related fugitive dust that would be controlled through appropriate BMPs	Minor short-term impact from construction-related fugitive dust that would be controlled through appropriate BMPs
Noise	No Change from Baseline Conditions	Minor impact from building and water heaters and reserve generators	Minor impact from building and water heaters and reserve generators
		Less than significant construction-related: appropriate worker safety measures would be implemented; no long-term effects from operation	Less than significant construction-related: appropriate worker safety measures would be implemented; no long-term effects from operation
		Nuisance disturbance at nearby businesses possible	Nuisance disturbance at nearby businesses possible
Geology and Soils			
Geology/Topography	No Change from Baseline Conditions	Less than significant: minor topographic alteration through clearing and grading for site preparation	Less than significant: minor topographic alteration through clearing and grading for site preparation
Soils	No Change from Baseline Conditions	Less than significant: appropriate BMPs would be implemented to minimize erosion and impact from stormwater runoff	Less than significant: appropriate BMPs would be implemented to minimize erosion and impact from stormwater runoff
Prime Farmland	No Change from Baseline Conditions	The site is not designated Prime Farmland. Therefore no impact would occur.	The site is not designated Prime Farmland. Therefore no impact would occur.
Water Resources			
Surface Water	No Change from Baseline Conditions	No Impact	No Impact
Hydrogeology/Groundwater	No Change from Baseline Conditions	No Impact	No Impact

TABLE 5-1
 Summary of Potential Environmental and Socioeconomic Consequences
Final EA--Everett, Washington Area

Resource	Environmental and Socioeconomic Consequences		
	No Action	Implementation at the Preferred Site	Implementation at the Alternate Site
Floodplains	No Change from Baseline Conditions	No Impact	No Impact
Water Resources			
Stormwater	No Change from Baseline Conditions	Less than significant: use of appropriate BMPs and stormwater controls would prevent impacts from construction activities. Stormwater controls would be designed to prevent post-construction runoff from exceeding preconstruction runoff.	Less than significant: use of appropriate BMPs and stormwater controls would prevent impacts from construction activities. Stormwater controls would be designed to prevent post-construction runoff from exceeding preconstruction runoff.
Biological Resources			
Vegetation	No Change from Baseline Conditions	No Impact	No Impact
Wildlife	No Change from Baseline Conditions	No Impact	No Impact
Wetlands	No Change from Baseline Conditions	No Impact	No Impact
Sensitive Species	No Change from Baseline Conditions	No Impact	No Impact
Cultural Resources			
Historic Resources	No Change from Baseline Conditions	No Impact	No impact anticipated. Site would be surveyed and appropriate SHPO coordination conducted prior to development.
Archeological Resources	No Change from Baseline Conditions	No Impact	No impact anticipated. Site would be surveyed and appropriate SHPO coordination conducted prior to development.

TABLE 5-1
 Summary of Potential Environmental and Socioeconomic Consequences
Final EA--Everett, Washington Area

Resource	Environmental and Socioeconomic Consequences		
	No Action	Implementation at the Preferred Site	Implementation at the Alternate Site
Native American Resources	No Change from Baseline Conditions	No Impact	No impact anticipated. Site would be surveyed and appropriate SHPO coordination conducted prior to development.
Socioeconomics			
Economic Development	No Change from Baseline Conditions	Short-term minor beneficial effects to the regional economy from construction, long-term minor benefit to regional economy from activation of six new units.	Short-term minor beneficial effects to the regional economy from construction, long-term minor benefit to regional economy from activation of six new units.
Demographics	No Change from Baseline Conditions	No Impact	No Impact
Housing	No Change from Baseline Conditions	No Impact	No Impact
Environmental Justice	No Change from Baseline Conditions	No Impact	No Impact
Protection of Children	No Change from Baseline Conditions	No Impact	No Impact
Transportation	No Change from Baseline Conditions	Less than significant additional traffic on 136 th Street	Less than significant
Hazardous Materials, Wastes, IRP Sites, and Stored Fuels			
Hazardous/Toxic Materials	No Change from Baseline Conditions	Less than significant from minor use quantities of cleaners, solvents, and lubricants associated with operation of AFRC and OMS	Less than significant from minor use quantities of cleaners, solvents, and lubricants associated with operation of AFRC and OMS
IRP	No Change from Baseline Conditions	No Impact	No Impact
Indirect and Cumulative Impacts	No Change from Baseline Conditions	No Impact	No Impact

5.1.3 Consequences of the No Action Alternative

No impact on any resources evaluated in this EA would result from the no action alternative.

5.2 Conclusions

Based on the findings previously presented, it has been concluded that no significant environmental or socioeconomic impacts would result from the preferred alternative (proposed action). Therefore, it is not necessary to prepare an EIS to address the proposed action and a FNSI should be issued.

6.0 List of Preparers

Leslie Garlinghouse/Project Manager/10 years of experience/Bachelor of Science

Chantal Cagle/Project Manager and Lead Planner/24 years of experience/Master of Science

Joy Chen/Toxicologist and Water Quality Specialist/7 years of experience/Master of Science

Christopher Clayton/Socioeconomics & Community Impact Analysis/28 years of experience/PhD.

Raena DeMaris/Cultural Resources /11 years of experience/Bachelor of Science

Dana Larson/Environmental Scientist/6 years experience/M.E.S.M.

Rich Reaves/Environmental Scientist/15 years of experience/PhD.

7.0 Distribution List

NATIVE AMERICAN TRIBAL GROUPS

- Tulalip Tribes of Washington
- Stillaguamish Tribe

AGENCIES, PUBLIC OFFICIALS and INTERESTED INDIVIDUALS

Mr. Ken Berg, Manager
Western Washington Office
U.S. Fish and Wildlife Service

510 Desmond Drive S.E., Suite 102
Lacey, Washington 98503-9440

8.0 References

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9.0 Persons Consulted

Mr. Ken Berg, Manager
Western Washington Office
U.S. Fish and Wildlife Service
510 Desmond Drive S.E., Suite 102
Lacey, Washington 98503-9440

Dr. Allyson Brooks, SHPO
Department of Archaeology & Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

Chairperson Shawn Yanity
Stillaguamish Tribe
PO Box 277
Arlington, WA 98223-9056

Chairman Melvin Sheldon, Jr.
Tulalip Board of Directors
Tulalip Tribes of Washington
6700 Totem Beach Road
Tulalip, WA 98271

10.0 Acronyms and Abbreviations

ACAM	Air Conformity Applicability Model
AFRC	Armed Forces Reserve Center
AIRFA	American Indian Religious Freedom Act
amsl	Above mean sea level
APE	Area of Potential Effect
AR	Army Regulation
ARC	Army Reserve Center

ARPA	Archaeological Resources Protection Act
AT/FP	Antiterrorism/force protection
ASIV	Available Site Identification and Validation
BCT	Brigade Combat Team
BMP	Best management practice
BRAC	Base Closure and Realignment
CEQ	Council on Environmental Quality
CFR	<i>Code of Federal Regulations</i>
CO	CO
CSS	Combat Service Support
DAHP	Department of Archaeology and Historic Preservation
dBA	Decibel(s)
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EIFS	Economic Impact Forecast System
EIS	Environmental impact statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FMS	Field Maintenance Shop
FNSI	Finding of No Significant Impact
ft ²	Square foot
GMA	Growth Management Act
GTA	Grow the Army
GTC	Gibson Traffic Consultants
IRP	Installation Restoration Program
lb	Pound
LEED	Leadership in Energy and Environmental Design
LOS	Level of service
MEP	Military equipment parking
NAAQS	National Ambient Air Quality Standards

NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NO _x	Nitrogen oxide
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OMS	Organizational maintenance shop
PM _{2.5}	Particulate matter less than 2.5 micrometers in aerodynamic diameter
PM ₁₀	Particulate matter less than 10 micrometers in aerodynamic diameter
POV	Privately owned vehicle
RCRA	Resource Conservation and Recovery Act
RCW	Revised Code of Washington
ROI	Region of interest
RSC	Regional Support Command
RTV	Rational threshold value
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO _x	Sulfur oxide
SST	Site Survey Team
TRS	Township Range Section
TWLTL	Two-way-left-turn-lane
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USFWS	U.S. Fish and Wildlife Service
VMS	Vehicle maintenance shed
VOC	Volatile organic compound
WAC	Washington Administrative Code
WAARNG	Washington Army National Guard

WDFW	Washington Department Fish and Wildlife
WNHP	Washington Natural Heritage Program
WDNR	Washington State Department of Natural Resources
yd ²	Square yard

Appendix A

Government Correspondence



DEPARTMENT OF THE ARMY
HEADQUARTERS, 70TH REGIONAL READINESS COMMAND
4570 TEXAS WAY WEST
FORT LAWTON, WA 98199-1015

REPLY TO
ATTENTION OF

AFRC-CWA-ENV

11 Nov 2008

Mr. Ken Berg
Manager
Western Washington Office
U.S. Fish and Wildlife Service
510 Desmond Drive S.E., Suite 102
Lacey, Washington 98503-9440

Subject: BRAC Environmental Assessment (EA) in Marysville, Washington

Dear Mr. Berg:

The 70th Regional Readiness Command is planning a Base Realignment and Closure (BRAC) project in the vicinity of Everett, WA. The project involves acquisition of a suitable site and construction of an Armed Forces Reserve Center (AFRC) in response to BRAC recommendations that the Oswald Army Reserve Center be closed and units realigned to the proposed Everett AFRC. The AFRC would provide a 300-member training and administrative facility, a maintenance shop, a storage building and adequate parking spaces for all military and privately-owned vehicles.

This letter is being sent as part of the agency scoping for the Environmental Assessment (EA) for the construction of the AFRC. This letter requests your input with regard to any issues of concern to the U.S. Fish and Wildlife Service relevant for consideration in the NEPA analysis.

Two sites are currently under consideration for the project. The Preferred Site is located in Marysville, WA in the northwest quarter of Section 4, Township 30 North, Range 5 East (see Figure 1). This site is within the planned Northpointe Industrial Park. It is approximately 24 acres and this past year was in agricultural use. The Preferred Site will undergo environmental study as per state and federal laws. An Alternate Site of about 24 acres is located near Arlington, WA in the northeast quarter of Section 28, Township 31 North, Range 5 East (see Figure 2). Unless conditions of the Preferred Site require it, the Alternate site will not undergo rigorous environmental study.

Please review this information and the accompanying maps and respond with any concerns you may have relating to the proposed project. If you have any questions, comments, or concerns about this project, please call or email meline skeldon at 206-301-2177 or meline.skeldon@us.army.mil

Sincerely,

ROBERT CLINE
LTC, EN
Regional Engineer

2 Enclosures

Garlinghouse, Leslie/BAO

From: Martha_L_Jensen@fws.gov
Sent: Tuesday, March 24, 2009 2:56 PM
To: Garlinghouse, Leslie/BAO; Larson, Dana/PDX
Cc: Darold_Rhodes@fws.gov; John_Grettenberger@fws.gov
Subject: Proposed Base Realignment and Closure at Everett

Attachments: Letter to USFWS_Everett EA.pdf



Letter to
FWS_Everett EA.pdf

Dana
Per our phone conversation from this morning, it does not appear that there will be any significant issues to listed species with the Marysville Industrial site location. Your environmental analysis should include indirect effects to listed species, including long-term effects on downstream water quality associated with stormwater runoff from impervious surfaces and growth and development associated with the action.

Just an FYI -
The Service gets a lot of Environmental Analysis Documents (EIS and EAs) to review and provide comments on. Given our current staffing situation, we generally do not provide responses back on projects with low impacts. It is up to the Federal action agency to evaluate effects to listed species and consult with us on implementation of the preferred alternative.
Hope this helps

Martha

Fish and Wildlife Biologist,
Division of Consultation and Technical Assistance Western Washington Fish and Wildlife
Office 510 Desmond Dr SE Lacey, WA 98503
tel: (360) 753-9000/ fax: (360) 753-9008 martha_l_jensen@fws.gov
----- Forwarded by Darold Rhodes/WWO/R1/FWS/DOI on 03/23/2009 09:08 AM

<Dana.Larson@CH2M
.com>

03/19/2009 03:09
PM

<darold_rhodes@fws.gov>

<Leslie.Garlinghouse@CH2M.com>

Subject
USFW Consultation for Everett EA

To

cc

Hi Darold,

As I will be out of the office tomorrow, Friday March 20th, I wanted to ask if you would be willing to respond to both Leslie (see the CC field) and I.

In summary, we are inquiring as to when USFW will be able to respond to the letter (attached) sent in November 2008. We understand how busy your office must be.

Thank you for taking the time to address this question.

Regards,

Dana Larson
Staff Scientist
CH2M HILL
2020 South West 4th Avenue
9th Floor
Portland, OR 97201-4958
office: 503.235.5000
direct: 503.736.4336
cell: 503.853.3938

(See attached file: Letter to USFWS_Everett EA.pdf)

Martha Jensen
Fish and Wildlife Biologist,
Division of Consultation and Technical Assistance Western Washington Fish and Wildlife
Office 510 Desmond Dr SE Lacey, WA 98503
tel: (360) 753-9000/ fax: (360) 753-9008 martha_l_jensen@fws.gov



DEPARTMENT OF THE ARMY
HEADQUARTERS, 70TH REGIONAL SUPPORT COMMAND
4570 TEXAS WAY WEST
FORT LAWTON, WA 98199-1015

REPLY TO
ATTENTION OF

6 February 2009

Environmental Division

Dr. Allyson Brooks
State Historic Preservation Officer
Washington Department of Archaeology & Historic Preservation
1063 S. Capitol Way
Suite 106
Olympia, WA 98501

Dear Dr. Brooks:

The United States Army is proposing to construct an Armed Forces Reserve Center (AFRC) Marysville Washington, in order to comply with the Defense Base Closure and Realignment Act of 1990 (Public Law [PL] 101-510), as amended, in facilitating recommendations of the Base Realignment and Closure (BRAC) Commission. The proposed site is located at 3900 136th Street NE, Marysville, WA, in the northwest quarter of Section 4, Township 30 North, Range 5 East. The site is within the planned Northpointe Industrial Park. The project involves acquisition of the ~24 acre site and construction of a 300 member AFRC to include a maintenance shop, a storage building, and adequate parking spaces for military and privately-owned vehicles.

As per requirements of section 106 of the National Historic Preservation Act, the Army is required to consider the effects of the proposed project on historic properties. Please find enclosed the cultural resource evaluation report for a *Proposed Everett Vicinity BRAC/GTA MILCON Project*. One isolated cultural resource was located within the Area of Potential Effect (APE) during the pedestrian survey, a historic porcelain sherd. This resource was documented according to state and federal standards, and no cultural artifacts or materials were observed during the subsurface investigation. The attached report describes the findings in detail.

Based on the results of the attached Phase I survey, the Army, as the lead Federal agency, has determined "no historic properties affected" by the proposed construction of the Marysville AFRC as per 36 CFR 800.4(d)(1). We believe that no further cultural resource work is necessary prior to project implementation.

We request your concurrence on our recommendation of "no historic properties affected" at the proposed Marysville AFRC location. If you have questions or concerns about this project please contact Ms. Meline Skeldon at (206) 301- 2177.

FOR THE COMMANDER:

A handwritten signature in blue ink, appearing to read "R D Cline", is located below the "FOR THE COMMANDER:" text.

ROBERT D. CLINE
LTC, EN
Regional Engineer



STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501

Mailing address: PO Box 48343 • Olympia, Washington 98504-8343

(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

February 17, 2009

Lt. Col. Robert D. Cline
70th Regional Support Command
Department of the Army
4570 Texas Way West
Fort Lawton, Washington 98199-1015

RE: Everett Vicinity BRAC/GTA MILCON Project
Log No: 021209-22-DOA

Dear Lt. Col. Cline:

Thank you for contacting our department. We have reviewed the professional archaeological survey you provided for the proposed Everett Vicinity BRAC/GTA MILCON Project at 3900 136th Street NE, Marysville, Snohomish County, Washington.

We concur with your Determination of No Historic Properties Affected..

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribes and this department notified.

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: rob.whitlam@dahp.wa.gov



DEPARTMENT OF THE ARMY
HEADQUARTERS, 70TH REGIONAL READINESS COMMAND
4570 TEXAS WAY WEST
FORT LAWTON, WA 98199-1015

REPLY TO
ATTENTION OF

AFRC-CWA-ENV

29 Oct 2008

Chairperson Shawn Yanity
Stillaguamish Tribe
PO Box 277
Arlington, WA 98223-9056

**Subject: Request for Coordination:
Vicinity BRAC/GTA MILCON Project, Snohomish County, WA**

Dear Chairperson Yanity:

This letter is a request for coordination with the Stillaguamish Tribe. Our preliminary research indicates that the Stillaguamish Tribe may have a historic connection with the project area. We are requesting your assistance in helping us to comply with cultural resource requirements for this project.

The 70th Regional Readiness Command is planning a combined Base Realignment and Closure (BRAC) and Grow the Army (GTA) project in the vicinity of Everett, WA. The project involves acquisition of a suitable site and construction of an Army Reserve Center (ARC) to include an Organizational Maintenance Shop (OMS), an unheated storage building, parking areas, and other support facilities. Buildings on the site would be of permanent construction with mechanical, electrical, plumbing and HVAC systems. Project development would involve land clearing, grading, paving, berms, security systems, utilities and other improvements. The facilities would provide ADA accessibility and would implement sustainable design and Energy Policy Act Features. The design of facility and placement of its features is in the conceptual stage and is currently being developed.

Two sites are currently proposed for the project. The Preferred Site is located in Marysville, WA in the northwest quarter of Section 4, Township 30 North, Range 5 East (see Figure 1). This site is approximately 24 acres and this past year was in agricultural use. The Preferred Site will undergo environmental study as per state and federal laws. An Alternate Site of about 24 acres is located near Arlington, WA in the northeast quarter of Section 28, Township 31 North, Range 5 East (see Figure 2). Unless conditions of the Preferred Site require it, the Alternate site will not undergo rigorous environmental study. The Preferred site is currently the only site undergoing environmental and cultural resource studies.

Please review this information and the accompanying maps and respond with any concerns you may have relating to cultural sites or materials of significance to the Tribe that could be impacted by the proposed project. We greatly appreciate your assistance in this matter. If you have any

questions, comments, or concerns about this project, please call or email Meline Skeldon at 206-301-2177 or meline.skeldon@us.army.mil

Sincerely,

A handwritten signature in black ink, appearing to read "Rlt D. Cl". The signature is written in a cursive, somewhat stylized font.

ROBERT CLINE
LTC, EN
Regional Engineer

2 Enclosures



DEPARTMENT OF THE ARMY
HEADQUARTERS, 70TH REGIONAL READINESS COMMAND
4570 TEXAS WAY WEST
FORT LAWTON, WA 98199-1015

REPLY TO
ATTENTION OF

AFRC-CWA-ENV

29 Oct 2008

Chairman Melvin Sheldon, Jr. and the
Tulalip Board of Directors
Tulalip Tribes of Washington
6700 Totem Beach Road
Tulalip, WA 98271

**Subject: Request for Coordination:
Vicinity BRAC/GTA MILCON Project, Snohomish County, WA**

Dear Chairman Sheldon and Board of Directors:

This letter is a request for coordination with the Tulalip Tribes of Washington. Our preliminary research indicates that the Tulalip Tribes may have a historic connection with the project area. We are requesting your assistance in helping us to comply with cultural resource requirements for this project.

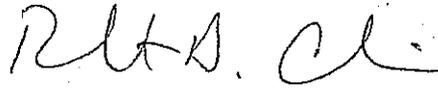
The 70th Regional Readiness Command is planning a combined Base Realignment and Closure (BRAC) and Grow the Army (GTA) project in the vicinity of Everett, WA. The project involves acquisition of a suitable site and construction of an Army Reserve Center (ARC) to include an Organizational Maintenance Shop (OMS), an unheated storage building, parking areas, and other support facilities. Buildings on the site would be of permanent construction with mechanical, electrical, plumbing and HVAC systems. Project development would involve land clearing, grading, paving, berms, security systems, utilities and other improvements. The facilities would provide ADA accessibility and would implement sustainable design and Energy Policy Act Features. The design of facility and placement of its features is in the conceptual stage and is currently being developed.

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Please review this information and the accompanying maps and respond with any concerns you may have relating to cultural sites or materials of significance to the Tribe that could be impacted by the proposed project. We greatly appreciate your assistance in this matter. If you have any

questions, comments, or concerns about this project, please call or email meline skeldon at 206-301-2177 or meline.skeldon@us.army.mil

Sincerely,

A handwritten signature in black ink, appearing to read "R. Cline". The signature is fluid and cursive, with the first letter of each name being capitalized and prominent.

ROBERT CLINE
LTC, EN
Regional Engineer

2 Enclosures

Army BRAC Project, Vicinity of Everett, WA

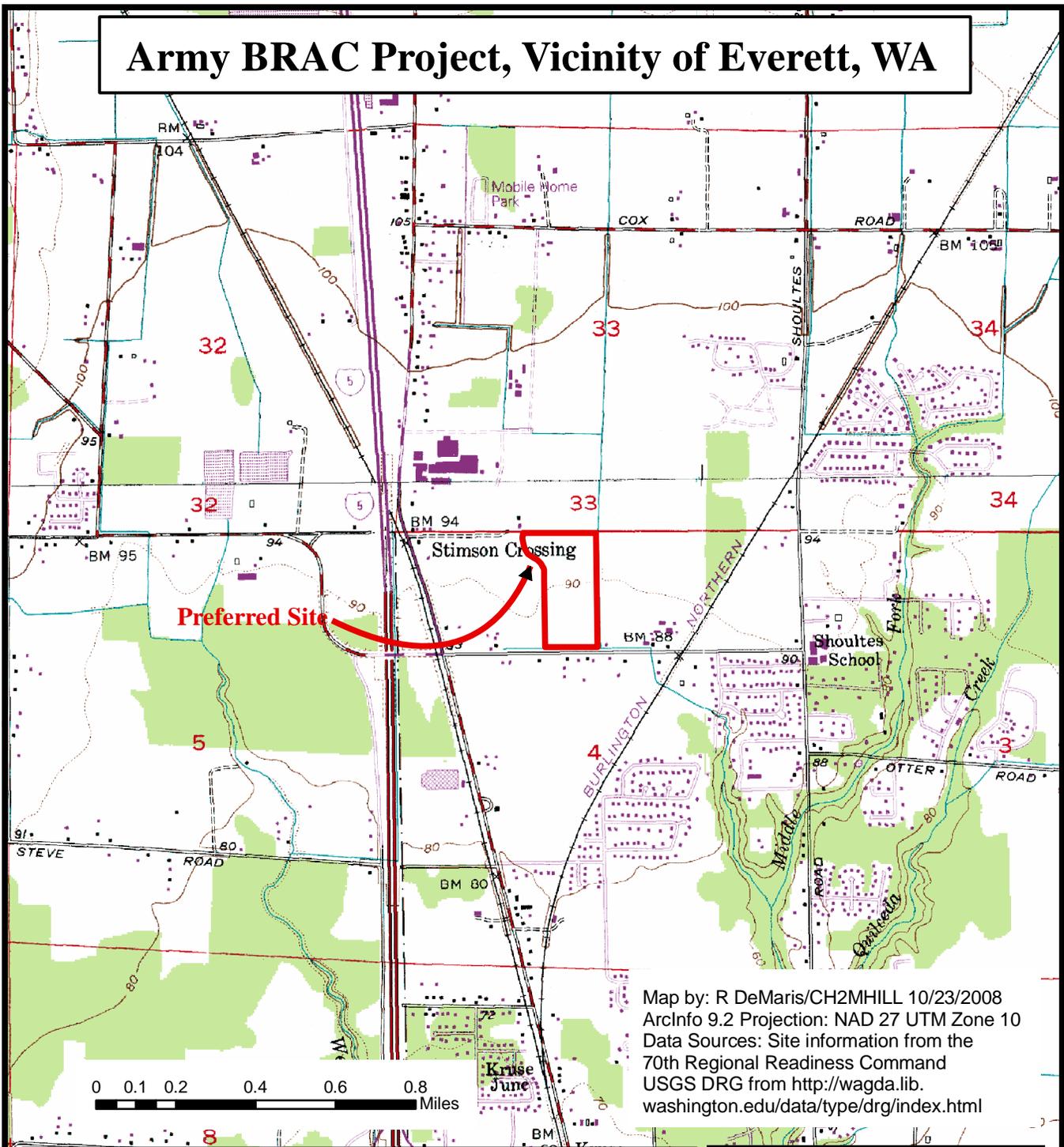


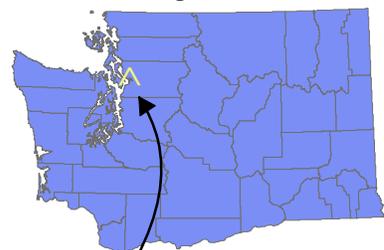
Figure 1: Preferred Site Location

Preferred Site 

3

T 30 N R 5 E Section 4
Marysville, WA 7.5' USGS DRG

Washington State



Project Location, Everett WA

Army BRAC Project, Vicinity of Everett, WA

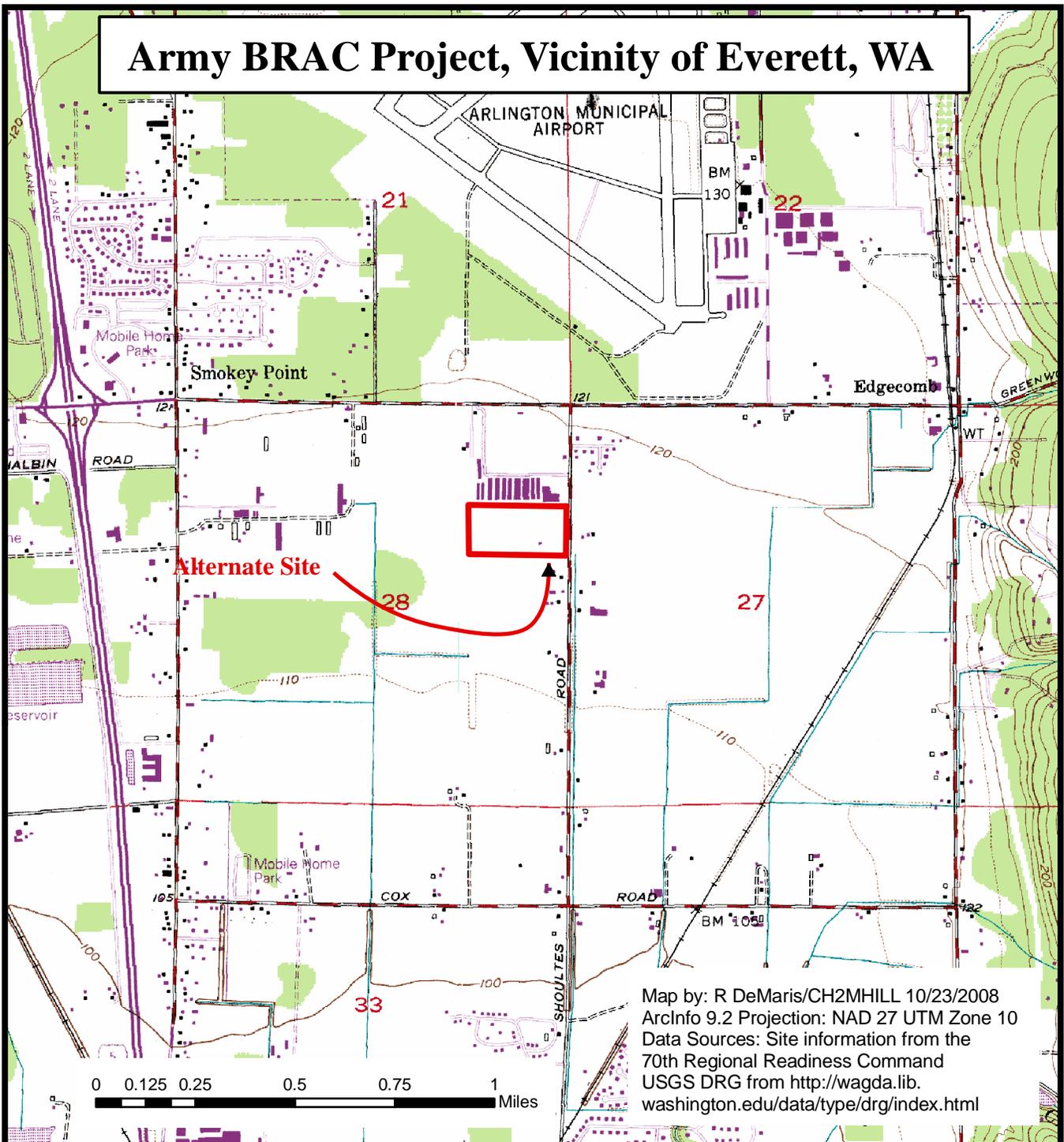


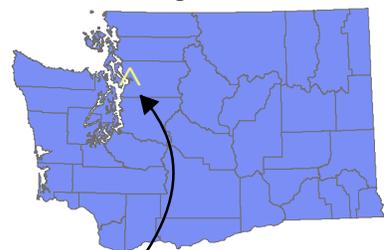
Figure 2: Alternate Site Location

Alternate Site 

3

T 31 N R 5 E Section 28
Arlington West, WA 7.5' USGS DRG

Washington State



Project Location, Everett WA

Appendix B
Air Emissions Formulas and Record of
Non-Applicability

- **Grading Equipment.** Emissions in the grading phase are primarily associated with the exhaust from large earth-moving equipment.

Tons per year of VOCs = $0.22 \text{ (pound [lb]/acre/day)} \times \text{number of acres} \times \text{days per year of grading} / 2,000 \text{ lb/ton}$

Tons per year of NO_x = $2.07 \text{ (lb/acre/day)} \times \text{number of acres} \times \text{days per year of grading} / 2,000 \text{ lb/ton}$

Tons per year of PM_{10} = $0.17 \text{ (lb/acre/day)} \times \text{number of acres} \times \text{days per year of grading} / 2,000 \text{ lb/ton}$

Tons per year of CO = $0.55 \text{ (lb/acre/day)} \times \text{number of acres} \times \text{days per year of grading} / 2,000 \text{ lb/ton}$

Tons per year of SO_2 = $0.21 \text{ (lb/acre/day)} \times \text{number of acres} \times \text{days per year of grading} / 2,000 \text{ lb/ton}$

- **Asphalt Paving.** VOC emissions in the asphalt paving phase are released through the evaporation of solvents contained in paving materials.

Tons per year of VOCs = $(2.62 \text{ lb/acre} \times \text{number of acres paved}) / 2,000 \text{ lb/ton}$

- **Stationary Equipment.** Emissions from stationary equipment occur when machinery such as generators, air compressors, welding machines, and other similar equipment are used at the construction site.

Tons per year of VOCs = $\text{ft}^2 \text{ constructed} \times 0.198 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of NO_x = $\text{ft}^2 \text{ constructed} \times 0.137 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of PM_{10} = $\text{ft}^2 \text{ constructed} \times 0.004 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of CO = $\text{ft}^2 \text{ constructed} \times 5.29 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of SO_2 = $\text{ft}^2 \text{ constructed} \times 0.007 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

- **Mobile Equipment.** Mobile equipment includes forklifts, dump trucks, excavators, etc.

Tons per year of VOCs = $\text{ft}^2 \text{ constructed} \times 0.17 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of NO_x = $\text{ft}^2 \text{ constructed} \times 1.86 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of PM_{10} = $\text{ft}^2 \text{ constructed} \times 0.15 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of CO = $\text{ft}^2 \text{ constructed} \times 0.78 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of SO_2 = $\text{ft}^2 \text{ constructed} \times 0.23 \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

- **Architectural Coatings.** VOCs are released through the evaporation of solvents that are contained in paints, varnishes, primers, and other surface coatings.

Tons per year of VOCs = $(1.63 \times \text{square root of ft}^2 \text{ constructed}) / 2,000 \text{ lb/ton}$

- **Commuter Automobiles:** Commuter traffic emissions are generated from commuter trips to and from the work site by construction employees.

Number of worker trips = $0.42 \text{ (trips/ft}^2\text{/day)} \times \text{area of office (1,000 ft}^2\text{)}$

Tons per year of VOCs = $(0.016 \text{ year 2009, } 0.012 \text{ years 2010 to 2011}) \times \text{number of worker trips} \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of NO_x = $(0.015 \text{ year 2009, } 0.013 \text{ years 2010 to 2011}) \times \text{number of worker trips} \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of PM_{10} = $0.0022 \times \text{number of worker trips} \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

Tons per year of CO = $0.262 \times \text{number of worker trips} \times \text{days per year of construction} / 2,000 \text{ lb/ton}$

GENERAL CONFORMITY – RECORD OF NON-APPLICABILITY

Project/Action Name: Armed Forces Reserve Center/ Everett, Washington Area

Project/Action Identification Number:

Project Action Point of Contact: Meline Skeldon/70th RRC Environmental Division (CDM)

Begin Construction Date: July 2009
Midpoint Construction Date: June 2010
End Construction Date: May 2011

General Conformity under the Clean Air Act, Section 176 has been evaluated for the project described above according to the requirements of 40 CFR 93, Subpart B. The requirements of this rule are not applicable to this project/action because:

____ The project/action is an exempt action under 40 CFR 153(c) or (d), (SPECIFY APPLICABLE EXEMPTION CATEGORY AND REGULATORY CITATION).

OR

X Total direct and indirect emissions from this project/action have been estimated to be 59 ton/yr, which is below the conformity threshold value established at 40 CFR 93.153(b) of 100 ton/yr CO;

AND

The project/action is not considered regionally significant under 40 CFR 93.153(i).

Support documentation and emissions estimates if relevant

- () ATTACHED
- (X) APPEAR IN THE NEPA DOCUMENTATION
- () OTHER _____



DAVID L. MOORE
Environmental, Chief
88th Regional Support Command

3/20/09
DATE

Appendix C
Snohomish County Rare Plant List

APPENDIX C

List of Known Occurrences of Rare Plants in Washington, Snohomish County

Washington Natural Heritage Information System

Scientific Name	Common Name	State Status	Federal Status	Historic Record	Habitat
<u>Agoseris elata</u>	Tall Agoseris	S			Meadows, open woods, and exposed rocky ridge tops on various slope aspects, from low elevations to timberline. Elevations from (500) 2900 to 7800 feet. The associated species vary considerably, depending on elevation and whether or not the site is on the east side of the Cascades or not. The vegetation is generally dominated by herbaceous species. (no current or historic occurrences near the project site– in Western Snohomish)
<u>Botrychium pedunculosum</u>	Stalked Moonwort	S	SC	H	In Washington, the taxon has been found in moist or dry meadows, along perennial streams, and in coniferous forests. Elevations range from 1800 to 6300 feet. (no current or historic occurrences near the project site)
<u>Campanula lasiocarpa</u>	Alaska Harebell	S			<i>Campanula lasiocarpa</i> prefers rock crevices in alpine zones, usually in unglaciated areas. Populations in Washington have been found at an elevation of 2000 to 6840 ft. (no current or historic occurrences near the project site)
<u>Carex comosa</u>	Bristly Sedge	S			Marshes, lake shores, and wet meadows. Elevation ranges from 50 to 2000 feet. (no current or historic occurrences near the project site)
<u>Carex magellanica ssp. irrigua</u>	Poor Sedge	S			In Washington, this taxon has been found in fens, bogs, shady wet meadows, shrub wetlands, and marshes, often growing in peat soil, at 1640 to 7000 ft (500 to 2134 m) elevation. (no current or historic occurrences near the project site)
<u>Carex pauciflora</u>	Few-flowered Sedge	S			Throughout its range, <i>C. pauciflora</i> grows in sphagnum bogs and acidic peat, usually on open mats, but also in partial conifer shade. In Washington, this species grows from 320 to 4550 ft. (current occurrences through Snohomish Co.)

APPENDIX C

List of Known Occurrences of Rare Plants in Washington, Snohomish County
Washington Natural Heritage Information System

Scientific Name	Common Name	State Status	Federal Status	Historic Record	Habitat
<u>Carex pluriflora</u>	Several-flowered Sedge	S			Habitat for the species includes wetlands, boggy lake margins, prairies, stream banks, and coastal inland areas. This species often grows in sphagnum and peaty soils in areas dominated by herbaceous plants. In Washington, populations range in elevation from 160 to 3160 feet. (no current or historic occurrences near the project site)
<u>Carex proposita</u>	Smoky Mountain Sedge	T			This species is found locally in the mountains of central Idaho and the Wenatchee Mountains of Washington. (no current or historic occurrences near the project site)
<u>Carex stylosa</u>	Long-styled Sedge	S			<i>Carex stylosa</i> has been found mainly in coastal regions of Washington and in shallow marshes, gravelly loam, streambanks, and moist meadows. Some occurrences in Washington are known to be growing over hardened lava flow. (no current or historic occurrences near the project site)
<u>Coptis aspleniifolia</u>	Spleenwort-leaved Goldthread	S			<i>Coptis aspleniifolia</i> occurs in moist plant associations in the Western Hemlock Zone or lower Silver Fir Zone. The species occurs in moist, cool sites, in old growth forests with a well-developed litter layer, from 360 to 2200 feet (110-670 m) elevation. (no current or historic occurrences near the project site)
<u>Dryas drummondii</u>	Yellow Mountain-avens	S			In crevices of steep, rocky, dry cliffs, and on limestone rock along rivers. (no current or historic occurrences near the project site, only one historic incidence in the east of Snohomish Co.)
<u>Erigeron salishii</u>	Salish Fleabane	S		H	In Washington, the species occurs primarily on dry scree slopes and sedge meadows in the alpine zone and ridgetops with granite, rock, and loess soils at an elevation of 6600 to 9000 ft (2012 to 2743 m). (no current or historic occurrences near the project site)

APPENDIX C

List of Known Occurrences of Rare Plants in Washington, Snohomish County
Washington Natural Heritage Information System

Scientific Name	Common Name	State Status	Federal Status	Historic Record	Habitat
<u>Fritillaria</u> <u>camschatcensis</u>	Black Lily	S			Near lakes and streams, and in wet meadows, salt marshes, marshes, sphagnum bogs, coniferous-forested wetlands, and deciduous lowland valley forest floors. It is generally found in moist open meadows, from coastal areas to around 3000 ft (914 m) in the mountains. (current occurrences through Snohomish Co. including the western border)
<u>Gaultheria</u> <u>hispidula</u>	Creeping Snowberry	S			This species occurs among areas of moist sphagnum and standing water in fir/spruce coniferous forests. (no current or historic occurrences near the project site)
<u>Lobelia</u> <u>dortmanna</u>	Water Lobelia	T		H	The species occurs in shallow water at the margins of lakes and ponds. (no current occurrences near the project site)
<u>Lycopodium</u> <u>dendroideum</u>	Treelike Clubmoss	S			Most sites in Washington have been described as rock outcrops, talus or boulder fields, often with a significant moss and organic debris layer. Elevation ranges from 800 to 3600 feet in Washington. (no current or historic occurrences near the project site)
<u>Montia diffusa</u>	Branching Montia	S		H	The most common habitat for <i>M. diffusa</i> is open fir woodlands. But because branching montia can tolerate some degree of disturbance, occurrences may exist in a wide variety of elevations and habitats except in those areas affected by severe burn. (no current or historic occurrences near the project site)
<u>Platanthera</u> <u>chorisiana</u>	Choris' Bog-orchid	T			The species is commonly found in the wettest regions of sphagnum bogs and along streamsides. It grows at elevations ranging from 2540 - 4300 ft. (774-1301 m) in Washington. (no current or historic occurrences near the project site)

APPENDIX C

List of Known Occurrences of Rare Plants in Washington, Snohomish County
Washington Natural Heritage Information System

Scientific Name	Common Name	State Status	Federal Status	Historic Record	Habitat
<u>Ranunculus cooleyae</u>	Cooley's Buttercup	S			<p><i>Ranunculus cooleyae</i> is found on montane gravelly alluvial slopes, generally facing north. A few populations in Washington have been found very close to lakes. Population elevations reach as low as 1,640 ft. (500 m) to as high as 6000 ft. (1829 m) in Washington state.</p> <p>(no current or historic occurrences near the project site)</p>
<u>Saxifraga rivularis</u>	Pygmy Saxifrage	S			<p>The species can be found on damp cliffs, rock crevices, and talus near snowbanks, as well as alpine slopes, cracks, and shaded cliffs. Elevation ranges from 6000-7000 ft (2000-2300 m).</p> <p>(no current or historic occurrences near the project site)</p>
<u>Swertia perennis</u>	Swertia	R1			<p>There is little known of the habitat of this species in Washington. One occurrence was found at an elevation of 5680 feet (1731 m) at the eastern border of Snohomish County.</p> <p>(no current or historic occurrences near the project site)</p>
<u>Utricularia intermedia</u>	Flat-leaved Bladderwort	S			<p>Shallow ponds, slow-moving streams, and wet sedge or rush meadows. Elevation 10-4000 feet.</p> <p>(no current or historic occurrences near the project site)</p>

Historic Record:

H indicates most recent sighting in the county is before 1977.

State Status

State Status of plant species is determined by the Washington Natural Heritage Program. Factors considered include abundance, occurrence patterns, vulnerability, threats, existing protection, and taxonomic distinctness.

Values include:

E = Endangered. In danger of becoming extinct or extirpated from Washington.

T = Threatened. Likely to become Endangered in Washington.

S = Sensitive. Vulnerable or declining and could become Endangered or Threatened in the state.

APPENDIX C

List of Known Occurrences of Rare Plants in Washington, Snohomish County
Washington Natural Heritage Information System

Scientific Name	Common Name	State Status	Federal Status	Historic Record	Habitat
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X = Possibly extinct or Extirpated from Washington.

R1 = Review group 1. Of potential concern but needs more field work to assign another rank.

R2 = Review group 2. Of potential concern but with unresolved taxonomic questions.

Federal Status

Federal Status under the U.S. Endangered Species Act(USESA) as published in the Federal Register:

LE = Listed Endangered. In danger of extinction.

LT = Listed Threatened. Likely to become endangered.

PE = Proposed Endangered.

PT = Proposed Threatened.

C = Candidate species. Sufficient information exists to support listing as Endangered or Threatened.

SC = Species of Concern. An unofficial status, the species appears to be in jeopardy, but insufficient information to support listing.

Appendix D

Economic Impact Forecast System

Economic Impact Forecast System

US Army Corps of Engineers
Mobile District

EIFS REPORT

PROJECT NAME

Everret, WA BRAC 2010

STUDY AREA

53029 Island, WA
53033 King, WA
53061 Snohomish, WA

FORECAST INPUT

Change In Local Expenditures	\$12,721,000
Change In Civilian Employment	0
Average Income of Affected Civilian	\$0
Percent Expected to Relocate	0
Change In Military Employment	0
Average Income of Affected Military	\$0
Percent of Militart Living On-post	0

FORECAST OUTPUT

Employment Multiplier	3.99
Income Multiplier	3.99
Sales Volume - Direct	\$12,721,000
Sales Volume - Induced	\$38,035,790
Sales Volume - Total	\$50,756,790 0.03%
Income - Direct	\$2,176,437
Income - Induced)	\$6,507,548
Income - Total(place of work)	\$8,683,984 0.01%
Employment - Direct	46
Employment - Induced	137
Employment - Total	183 0.01%
Local Population	0
Local Off-base Population	0 0%

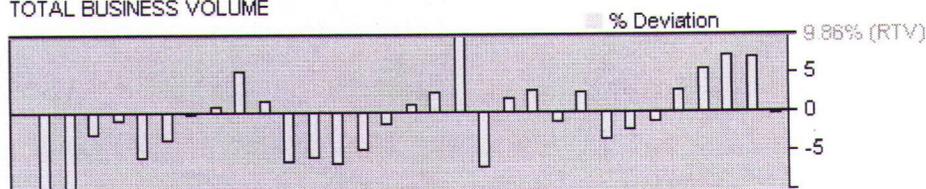
RTV SUMMARY

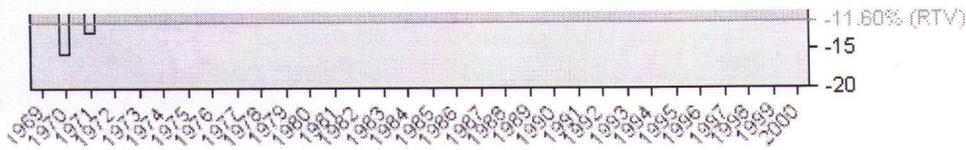
	Sales Volume	Income	Employment	Population
Positive RTV	9.86 %	9.57 %	4.4 %	1.86 %
Negative RTV	-11.6 %	-7.06 %	-8.11 %	-1.58 %

RTV DETAILED

SALES VOLUME

TOTAL BUSINESS VOLUME



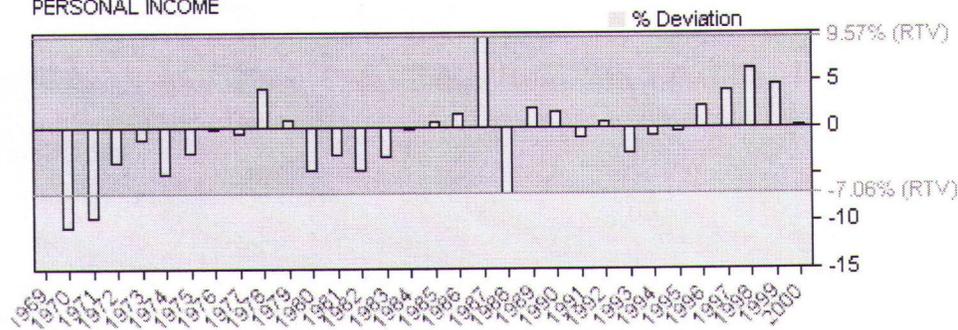


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Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	5526061	24148886	0	0	0
1970	5405612	22325178	-1823708	-3450744	-15.46
1971	5366750	21252330	-1072848	-2699884	-12.7
1972	5809894	22251894	999563	-627473	-2.82
1973	6552161	23653301	1401407	-225629	-0.95
1974	7351917	23893730	240430	-1386606	-5.8
1975	8280759	24676662	782932	-844104	-3.42
1976	9314248	26266179	1589517	-37519	-0.14
1977	10656471	28133085	1866906	239870	0.85
1978	12784124	31448946	3315861	1688825	5.37
1979	15183348	33555200	2106254	479218	1.43
1980	17083995	33142951	-412248	-2039284	-6.15
1981	18665958	32852086	-290865	-1917901	-5.84
1982	19515892	32396380	-455706	-2082742	-6.43
1983	20193013	32510751	114371	-1512665	-4.65
1984	21836978	33628945	1118194	-508842	-1.51
1985	23899897	35610847	1981901	354865	1
1986	26159527	38192910	2582064	955028	2.5
1987	28498984	44173424	5980513	4353477	9.86
1988	31471274	42800933	-1372491	-2999527	-7.01
1989	35017295	45172309	2371376	744340	1.65
1990	39141757	48144362	2972053	1345017	2.79
1991	41687811	49191615	1047253	-579783	-1.18
1992	45670936	52064866	2873252	1246216	2.39
1993	46706448	51844158	-220708	-1847744	-3.56
1994	48417078	52290446	446288	-1180748	-2.26
1995	50718788	53254725	964279	-662757	-1.24
1996	55295770	56401684	3146959	1519923	2.69
1997	61423404	61423404	5021720	3394684	5.53
1998	69438200	68049437	6626033	4998997	7.35
1999	77960601	74842175	6792738	5165702	6.9
2000	81950581	76214041	1371866	-255170	-0.33

INCOME

PERSONAL INCOME

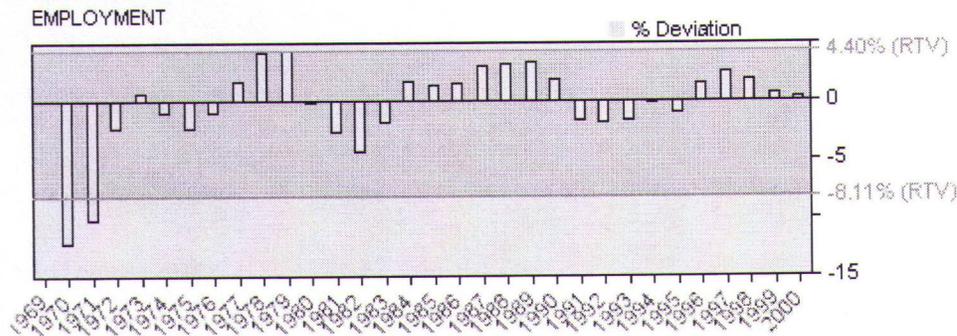


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Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	5526061	24148886	0	0	0

1969	0047803	29050690	U	U	U
1970	6791207	28047686	-1003213	-2954670	-10.53
1971	6908728	27358563	-689123	-2640580	-9.65
1972	7377442	28255602	897039	-1054418	-3.73
1973	8260566	29820642	1565040	-386417	-1.3
1974	9303488	30236336	415694	-1535763	-5.08
1975	10512890	31328412	1092076	-859381	-2.74
1976	11778593	33215631	1887219	-64238	-0.19
1977	13240876	34955914	1740283	-211174	-0.6
1978	15649887	38498723	3542809	1591352	4.13
1979	18447841	40769729	2271007	319550	0.78
1980	21076533	40888475	118746	-1832711	-4.48
1981	23634301	41596370	707894	-1243563	-2.99
1982	25070029	41616247	19878	-1931579	-4.64
1983	26248315	42259788	643540	-1307917	-3.09
1984	28632493	44094038	1834251	-117206	-0.27
1985	31112828	46358114	2264076	312619	0.67
1986	33558451	48995340	2637226	685769	1.4
1987	36348912	56340812	7345472	5394015	9.57
1988	40042306	54457537	-1883275	-3834732	-7.04
1989	44630641	57573525	3115988	1164531	2.02
1990	49216752	60536606	2963081	1011624	1.67
1991	52422944	61859071	1322465	-628992	-1.02
1992	56380502	64273771	2414700	463243	0.72
1993	58057175	64443465	169694	-1781763	-2.76
1994	60999724	65879705	1436239	-515218	-0.78
1995	64381712	67600795	1721090	-230367	-0.34
1996	69785383	71181089	3580295	1628838	2.29
1997	76080375	76080375	4899286	2947829	3.87
1998	84997332	83297387	7217012	5265555	6.32
1999	93158685	89432336	6134949	4183492	4.68
2000	98384430	91497521	2065185	113728	0.12

EMPLOYMENT

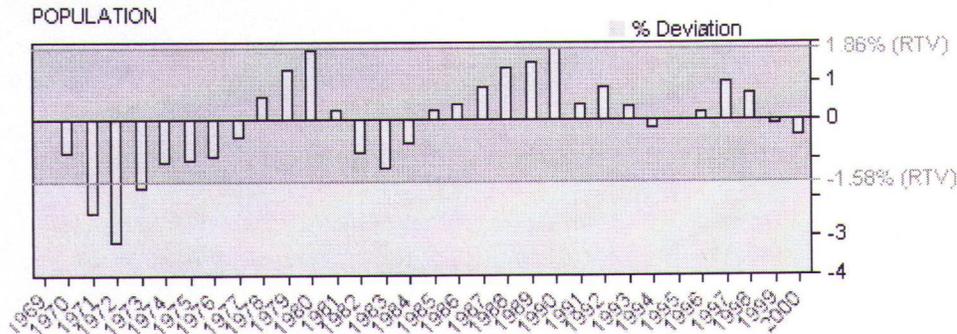


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Year	Value	Change	Deviation	%Deviation
1969	694798	0	0	0
1970	649665	-45133	-78673	-12.11
1971	620084	-29581	-63121	-10.18
1972	638921	18837	-14703	-2.3
1973	677461	38540	5000	0.74
1974	703895	26434	-7106	-1.01
1975	720629	16734	-16806	-2.33

1976	746256	25627	-7913	-1.06
1977	792419	46163	12623	1.59
1978	861859	69440	35900	4.17
1979	936642	74783	41243	4.4
1980	968560	31918	-1622	-0.17
1981	976281	7721	-25819	-2.64
1982	968421	-7860	-41400	-4.28
1983	983516	15095	-18445	-1.88
1984	1033850	50334	16794	1.62
1985	1082501	48651	15111	1.4
1986	1133626	51125	17585	1.55
1987	1202585	68959	35419	2.95
1988	1276193	73608	40068	3.14
1989	1353710	77517	43977	3.25
1990	1413474	59764	26224	1.86
1991	1422907	9433	-24107	-1.69
1992	1430108	7201	-26339	-1.84
1993	1440231	10123	-23417	-1.63
1994	1471442	31211	-2329	-0.16
1995	1490509	19067	-14473	-0.97
1996	1546731	56222	22682	1.47
1997	1620527	73796	40256	2.48
1998	1684190	63663	30123	1.79
1999	1730179	45989	12449	0.72
2000	1768087	37908	4368	0.25

POPULATION



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Year	Value	Change	Deviation	%Deviation
1969	1430592	0	0	0
1970	1449368	18776	-12084	-0.83
1971	1445278	-4090	-34950	-2.42
1972	1430990	-14288	-45148	-3.16
1973	1436622	5632	-25228	-1.76
1974	1451618	14996	-15864	-1.09
1975	1467412	15794	-15066	-1.03
1976	1484449	17037	-13823	-0.93
1977	1508682	24233	-6627	-0.44
1978	1548539	39857	8997	0.58
1979	1600600	52061	21201	1.32
1980	1661379	60779	29919	1.8
1981	1696828	35449	4589	0.27
1982	1713438	16610	-14250	-0.83

1983	1722717	9279	-21581	-1.25
1984	1743462	20745	-10115	-0.58
1985	1778459	34997	4137	0.23
1986	1816529	38070	7210	0.4
1987	1863661	47132	16272	0.87
1988	1920043	56382	25522	1.33
1989	1980138	60095	29235	1.48
1990	2049195	69057	38197	1.86
1991	2087899	38704	7844	0.38
1992	2136409	48510	17650	0.83
1993	2174573	38164	7304	0.34
1994	2201440	26867	-3993	-0.18
1995	2232464	31024	164	0.01
1996	2267624	35160	4300	0.19
1997	2321922	54298	23438	1.01
1998	2368915	46993	16133	0.68
1999	2397429	28514	-2346	-0.1
2000	2418121	20692	-10168	-0.42

***** End of Report *****