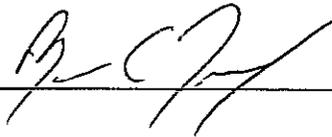


ENVIRONMENTAL ASSESSMENT  
IMPLEMENTATION OF BRAC ACTIONS AT  
CAMP WITHYCOMBE, OREGON

*Prepared for:*

U.S. ARMY CORPS OF ENGINEERS  
MOBILE DISTRICT



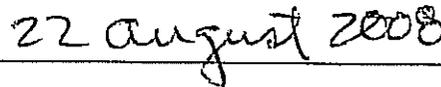
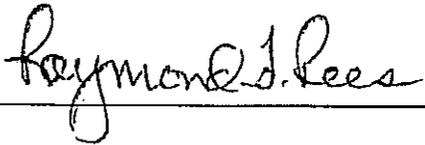
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Commanding

*Approved by:*

OREGON ARMY NATIONAL GUARD



Raymond F. Rees  
Major General  
The Adjutant General

Date

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*Final Environmental Assessment*

# Implementation of BRAC Actions at Camp Withycombe, Oregon

Prepared for  
**U.S. Army Corps of Engineers**

November 2008

**CH2MHILL**  
Tampa, Florida

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# Executive Summary

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## ES-1 Introduction

Under the mandate of the 2002 Base Closure and Realignment law (commonly referred to as BRAC), the 2005 BRAC Commission has recommended that a new Armed Forces Reserve Center (AFRC) be constructed at Camp Withycombe in Clackamas, Oregon (OR). The new AFRC would accommodate OR Army National Guard (ORARNG) units currently at Camp Withycombe and ORARNG units that would be relocated from Lake Oswego Armory in Lake Oswego, OR, Maison Armory in Tigard, OR, and Jackson Armory in Portland, OR. The new AFRC would also accommodate U.S. Army Reserve (USAR) units that would be relocated from Sears Hall Reserve Center in Portland, OR and from Sharff Hall Reserve Center in Portland, OR. The exact language of the BRAC Commission's recommendations pertaining to Camp Withycombe is as follows:

*“Close Sears Hall United States Army Reserve Center in Portland, OR, close Sharff Hall United States Army Reserve Center in Portland, OR, and relocate units to a new Armed Forces Reserve Center on Camp Withycombe, OR. The new Armed Forces Reserve Center (AFRC) shall have the capability to accommodate Oregon National Guard units currently on Camp Withycombe and from the following Oregon ARNG Armories: Lake Oswego Armory, Maison Armory, and Jackson Band Armory, OR, if the state decides to relocate those National Guard units.”*

The purpose of the proposed action is to provide the Army National Guard (ARNG) the means to carry out the BRAC Commission's recommendations pertaining to Camp Withycombe. The proposed action is needed to meet the cost-saving requirements of BRAC and support ARNG's required compliance with the BRAC law. Based on the BRAC Commission's findings, the referenced ORARNG and USAR facilities do not provide adequate training, storage, or parking space. The BRAC Commission has determined that a new AFRC should be constructed at Camp Withycombe that would provide the space and resources necessary for the referenced units to meet their readiness, recruiting and retention, and training objectives. The proposed AFRC would result in significant operational cost savings for ARNG and would improve quality of life and morale of these relocated units. The consolidation of the units into a single facility would enhance training time and command and control, thereby, improving the ability of ARNG to fulfill its overall mission.

## ES-2 Description of Proposed Action and Alternatives

### Proposed Action

The proposed action is to implement the BRAC Commission's recommendations pertaining to Camp Withycombe. The proposed action would involve 1) construction and operation of

an AFRC Complex at Camp Withycombe, 2) demolition of 14 buildings, relocation of 2 buildings, and establishment of a Historic Area south of the AFRC Complex, 3) upgrades/modifications to the post roadway and utility infrastructure in and around the proposed AFRC Complex site, and 4) relocation of ORARNG and USAR units from existing facilities to Camp Withycombe.

The primary components of the AFRC Complex would be the AFRC building, compound area, and privately-owned vehicle (POV) parking area. Based on its preliminary design, the AFRC building would be a multi-story structure of permanent masonry and steel construction. It would be approximately 260,000 square feet (sf) in total area and would primarily include an assembly hall, classrooms, learning centers, administrative offices, storage rooms, break room, physical fitness room, kitchen, latrines, and shower facilities. Based on its preliminary design, the compound area within the AFRC Complex would primarily include a 227,000-sf government-owned vehicle parking area, 26,000-sf unheated storage and vehicle maintenance shop, 400-sf flammable materials storage shed, and 300-sf controlled waste storage shed. The POV parking area within the AFRC Complex would be approximately 297,000 sf in total area.

Ten of the 14 buildings that would be demolished and the 2 buildings that would be relocated are located within the construction footprint of the AFRC Complex and the remaining 4 buildings that would be demolished are located within the area proposed to be the Historic Area. Three of the buildings within the construction footprint of the AFRC Complex (Buildings 6305, 6308, and 6310) proposed to be demolished are eligible for listing on the National Register of Historic Places (NRHP). The buildings that would be relocated are the Quonset hut (Building 6220) which is part of the Oregon Military Museum (Building 6232) and the horse barn (Building 6525) which is eligible for NRHP listing. The proposed actions involving the demolition of Buildings 6305, 6308, and 6310 and relocation of Buildings 6220 and 6525 constitute significant adverse effects on these NRHP-eligible buildings. The Oregon State Historic Preservation Office (SHPO), US National Guard Bureau (NGB), ORARNG, and the Clackamas County Historic Review Board (County Historic Board) conducted Section 106 consultation and agreed that these significant adverse effects could be mitigated if certain actions were taken. The actions, described below, have been memorialized in a Memorandum of Agreement (MOA) among SHPO, NGB, ORARNG and the County Historic Board. Under the terms of the MOA, ORARNG would create a Historic Area at Camp Withycombe that would be readily accessible to the public. ORARNG would relocate the Quonset hut and horse barn to the new Historic Area. ORARNG would relocate the Oregon Military Museum and the contents of Building 6230, which is used for museum storage, to the existing NRHP-eligible Clackamas armory (Building 6101). The Clackamas armory is located in the area designated to be the Historic Area. The Clackamas armory would house the Oregon Military Museum after the new AFRC is constructed. Finally, ORARNG would conduct 35-millimeter black and white or digital photo-documentation of all the NRHP-eligible buildings and structures before they are moved, demolished or altered.

Utility systems located within the AFRC Complex area as well those that connect to or would otherwise service the Complex would be upgraded or replaced to accommodate operation of the Complex and to meet the utility demand increase that would result from the unit relocations. The utility systems that would be upgraded or replaced under the proposed action would include electrical, storm drainage, sanitary sewer, potable water,

lighting, and communication systems. The primary roadway infrastructure modifications that would be included under the proposed action would be the relocation of the main entrance gate, construction of a commercial entrance gate, and construction of new roads within the post that would service the AFRC Complex and connected areas. The proposed roadway infrastructure modifications are needed to accommodate the increase in traffic that would result from the unit relocations. The new gates and roads would separate commercial and military traffic from general POV traffic, thereby, minimizing congestion.

Approximately 322 military personnel and 2 civilian employees assigned to ORARNG units from Lake Oswego Armory, Maison Armory, and Jackson Armory would be relocated to the new AFRC at Camp Withycombe. Approximately 420 military personnel and 9 civilian employees assigned to USAR units from Sears Hall Reserve Center and Sharff Hall Reserve Center would be relocated to the new AFRC. Most of the ORARNG and USAR military personnel that would be relocated to Camp Withycombe are weekend drill soldiers. Weekend drills for such personnel are typically conducted one weekend a month. As such, most of the military personnel that would relocate to Camp Withycombe would be on post only one weekend a month, except during emergencies which may require them to be on post for longer periods of time. Weekend drills would be staggered at Camp Withycombe so not all personnel would be on post during the same weekend.

In addition to the ORARNG and USAR units being relocated from other locations, the new AFRC would also accommodate approximately 579 military personnel and 14 civilian employees assigned to ORARNG units currently at Camp Withycombe. These units currently occupy several facilities scattered throughout the post, including the Clackamas armory. As such, the new AFRC would accommodate an approximate total of 1,321 military personnel and 25 civilian employees. The AFRC would be operated by the ORARNG and USAR units being relocated and the existing workforce at Camp Withycombe. No additional military personnel would be relocated and no additional civilians would be hired to operate the AFRC.

## Alternatives Analysis

Facility siting and site layout considerations for the AFRC Complex were based on the space and operational requirements of the future tenant units and the relevant constraints of the post property. Through the planning process, it was determined that the undeveloped area in the western part of Camp Withycombe is the only site on the post that could accommodate the space requirements of the AFRC Complex. Because sufficient space does not exist in any other part of the post, there is no alternative site for the AFRC Complex. Several layouts were evaluated based on their potential to accommodate AFRC operations and their compatibility with other components of the post development plan. Based on size requirements of the AFRC Complex and the limited space available at the site, it was determined that the site layouts did not differ significantly in how they would affect the environment. The final site layout was developed by incorporating favorable aspects of all options evaluated. Based on the alternatives analysis that was conducted, it was determined that there is no reasonable alternative to the proposed action.

## No Action Alternative

The National Environmental Policy Act (NEPA) requires consideration of a no action alternative to the proposed action. Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Because ARNG is required to comply with the BRAC Commission's recommendations pertaining to Camp Withycombe, the no action alternative is not a reasonable alternative for ARNG. However, it is evaluated in detail in this EA to meet the requirements of NEPA and to serve as a benchmark for the evaluation of potential effects of the proposed federal action.

## ES-3 Environmental Consequences

### Proposed Action

Under the proposed action, there would be no significant changes to the human or natural environment (Table ES-1). The impacts that the proposed action would have on the natural environment would be minor. The proposed action would have net positive impacts on several of the resources evaluated. The proposed action is an integral part of the overall development plan for Camp Withycombe and its implementation would have a positive impact on land use planning and the operational functionality of the post. The loss of recreational use of the open field where the proposed POV parking lot and AFRC building would be constructed would have a minor impact on the current functional use of this part of the post. However, recreational use of the site is infrequent and its overall functional value would be far outweighed by the functional value provided by the proposed AFRC Complex.

The expected annual emissions of carbon monoxide under the proposed action would be below the conformity threshold value. Fugitive dust and construction vehicle exhaust emissions from construction and demolition activities would result in short-term, minor impacts to air quality. Fugitive dust would be controlled at the site using best management practices, such as periodic watering of cleared areas and stockpiled materials, and mulching or vegetative cover for the cleared areas.

Construction and demolition activities would temporarily increase ambient noise levels; however, the increase in noise levels would be intermittent and limited to normal working hours and the overall construction period. The noise generated by operation of the AFRC Complex would be intermittent, limited to normal working hours, and at levels that are not expected to disturb nearby residences. The proposed unit relocations would increase traffic-related noise on and in the vicinity of the post; however, the proposed new gates would decrease the amount of traffic-related noise in the residential community located adjacent to the existing main gate.

Construction and demolition activities would have a negligible impact on topography and a minor impact on soils. Sediment and erosion controls would be implemented during construction and demolition activities to prevent any indirect impacts to surrounding soils. Construction of the AFRC Complex would impact mostly mowed field and to a lesser

extent, shrub, herbaceous wetland, and potentially a small portion of the park-like community located in the southern part of the post. The maximum amount of wetland impact that would result under the proposed action would be approximately 1.27 acres. The wetlands as well as the other vegetation communities that would be impacted are of low quality as a result of regular mowing and past land use practices. OMD would obtain a wetland removal-fill permit from the U.S. Army Corps of Engineers and/or the Oregon Department of State Lands prior to the initiation of construction. Appropriate mitigation for the wetland impacts would be provided in accordance with the permit(s) and sediment and erosion controls would be implemented during construction to prevent any indirect impacts to wetlands and vegetation that would not be directly impacted. Wildlife on and in the vicinity of Camp Withycombe may be temporarily disturbed by construction and demolition noise during the construction period; however the overall impact is expected to be minor. The noise that would be generated during operation of the AFRC Complex has the potential to disturb wildlife within the vicinity of the Complex; however, the overall impact to wildlife is expected to be minor because the noise would be intermittent and at relatively low levels.

The proposed action would have significant adverse effects on cultural resources with the demolition of three NRHP-eligible buildings (Buildings 6305, 6308, and 6310) and relocation of one NRHP-eligible building (Building 6525). However, the adverse effects on cultural resources would be mitigated when the provisions in the MOA are completed. Under the terms of the MOA, as described above, SHPO agrees that the significant adverse effects caused by the proposed action would be mitigated.

The proposed action would have minor positive impacts on the local economy resulting from short-term, temporary increases in employment and expenditures during construction. The unit relocations would increase traffic on and in the vicinity of Camp Withycombe. The proposed roadway infrastructure upgrades/modifications would accommodate the increase in traffic that would result on the post. The new gates and roads would separate commercial and military traffic from general POV traffic, thereby, minimizing congestion. Traffic would increase on the roads that provide access to the western side of the post where the new gates are proposed. However, the new gates would decrease the amount of post-related traffic that occurs in the residential community located adjacent to the existing main gate. Construction of the AFRC Complex would increase traffic on and in the vicinity of Camp Withycombe during the construction period; however, the projected increase is not expected to have a major burden on the road system.

Operation of the AFRC Complex and the unit relocations would increase utility demand at Camp Withycombe. The proposed utility infrastructure upgrades/modifications would meet the utility demand increase and would have a positive impact on the overall operational functionality of the entire post. Construction of the AFRC Complex would impact a ditch that is part of the storm water drainage system of the post. A new storm water management system that would restore the conveyance in the affected area as well as provide attenuation/conveyance for storm water runoff from the AFRC Complex would be constructed under the proposed action.

Hazardous substances would be held, handled, and disposed of, under the proposed action in accordance with all applicable environmental regulations and with all hazardous materials management plans implemented at the post. Camp Withycombe would conduct

comprehensive Lead-based paint (LBP), asbestos-containing material (ACM), and polychlorinated biphenyl (PCB) surveys of the buildings proposed to be demolished. Necessary LBP, ACM, or PCB abatement would be conducted in accordance with all applicable state and federal regulations.

## No Action Alternative

The no action alternative would have no effect on any of the resources evaluated. However, the no action alternative would hinder the functional area reorganization and infrastructure improvements needed for the post; prevent ARNG from achieving significant operational cost savings; and impact the readiness, recruiting/retention, and training of the units being relocated and those currently assigned to Camp Withycombe. As such, the no action alternative is not a reasonable alternative for ARNG.

## ES-4 Conclusions

Based on the findings of this EA, the proposed action would not result in significant adverse impacts to land use, air quality, noise, geology, topography, soils, water resources, biological resources, socioeconomics, transportation, utilities, or hazardous/toxic substances (Table ES-1). The proposed action would have significant adverse effects on cultural resources; however, the adverse effects on cultural resources would be mitigated when the provisions in the MOA with SHPO are completed. Therefore, an Environmental Impact Statement (EIS) will not be prepared and a FNSI is warranted for the proposed action.

TABLE ES-1  
IMPACT SUMMARY

Resource	Proposed Action	No Action Alternative
Land use	MAJOR POSITIVE IMPACT	NO EFFECT
Air Quality	MINOR IMPACT	NO EFFECT
Noise	MINOR IMPACT	NO EFFECT
Geology	NO EFFECT	NO EFFECT
Topography	NEGLIGIBLE IMPACT	NO EFFECT
Soils	MINOR IMPACT	NO EFFECT
Surface Water	NO EFFECT	NO EFFECT
Ground Water	NEGLIGIBLE IMPACT	NO EFFECT
Floodplains	NO EFFECT	NO EFFECT

TABLE ES-1  
IMPACT SUMMARY

<b>Resource</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
Wetlands	MINOR IMPACT	NO EFFECT
Vegetation	MINOR IMPACT	NO EFFECT
Wildlife	MINOR IMPACT	NO EFFECT
Sensitive Species	NO EFFECT	NO EFFECT
Cultural Resources	SIGNIFICANT ADVERSE EFFECT (MITIGATED)	NO EFFECT
Economic Development	MINOR POSITIVE IMPACT	NO EFFECT
Population	NO EFFECT	NO EFFECT
Housing	NO EFFECT	NO EFFECT
Environmental Justice	NO EFFECT	NO EFFECT
Protection of Children	NO EFFECT	NO EFFECT
Transportation	MINOR POSITIVE IMPACT	NO EFFECT
Utilities	MODERATE POSITIVE IMPACT	NO EFFECT
Hazardous and Toxic Substances	MINOR IMPACT	NO EFFECT

# 1 Purpose, Need, and Scope

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## 1.1 Introduction

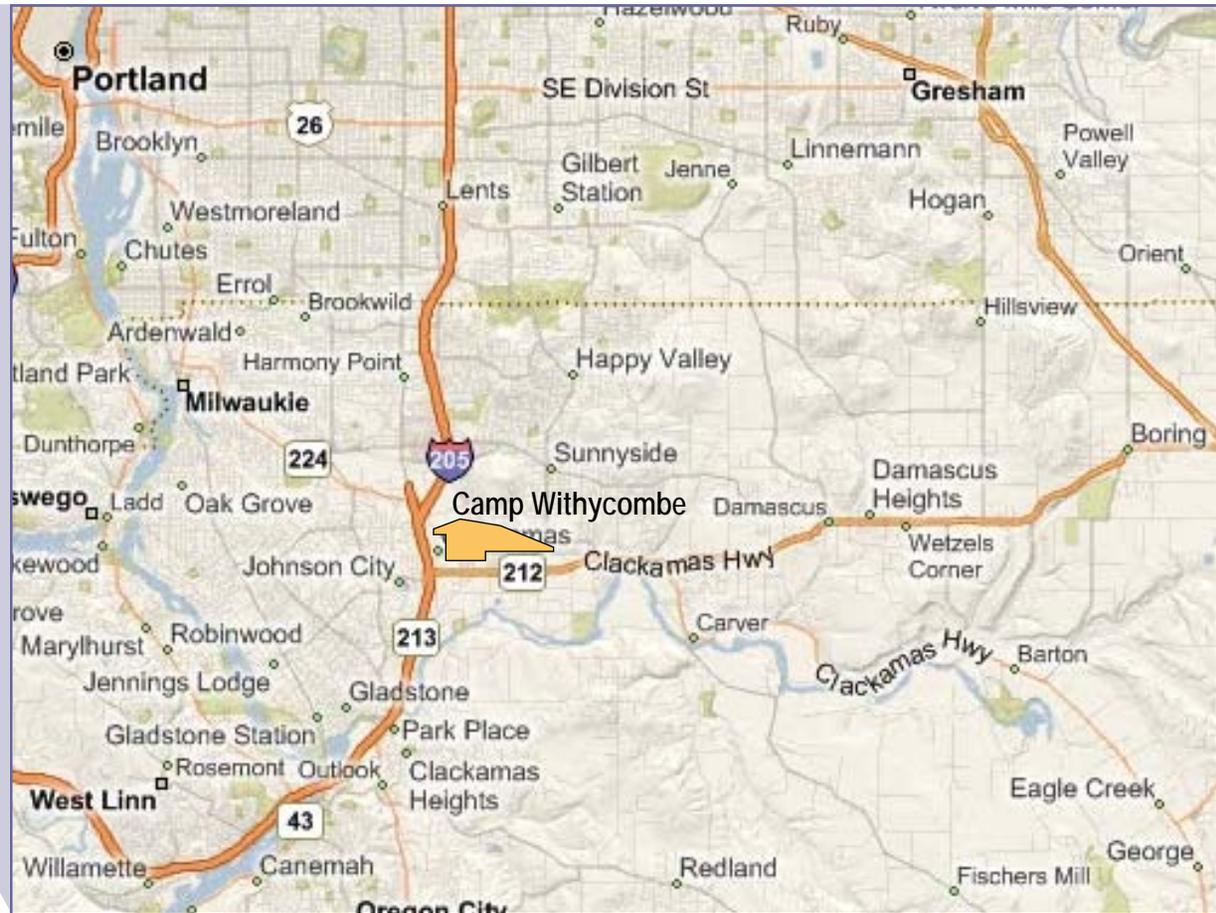
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*“Close Sears Hall United States Army Reserve Center in Portland, OR, close Sharff Hall United States Army Reserve Center in Portland, OR, and relocate units to a new Armed Forces Reserve Center on Camp Withycombe, OR. The new Armed Forces Reserve Center (AFRC) shall have the capability to accommodate Oregon National Guard units currently on Camp Withycombe and from the following Oregon ARNG Armories: Lake Oswego Armory, Maison Armory, and Jackson Band Armory, OR, if the state decides to relocate those National Guard units.”*

Camp Withycombe is an ORARNG facility located in Clackamas, Oregon (Figure 1-1). It occupies 77.74 acres and serves as the main logistics facility for ORARNG. Camp Withycombe was originally developed by the federal government in 1909 for military use as the Clackamas Rifle Range. It transitioned over the years to a multi-purpose facility for ORARNG, and was transferred to the State of Oregon in 1956. Camp Withycombe is currently used by ORARNG for heavy equipment maintenance, logistics support, and training.

## 1.2 Purpose of and Need for Proposed Action

The purpose of the proposed action is to provide the Army National Guard (ARNG) the means to carry out the BRAC Commission's recommendations pertaining to Camp Withycombe. The proposed action is needed to meet the cost-saving requirements of BRAC and support ARNG's required compliance with the BRAC law. Based on the BRAC Commission's findings, the referenced ORARNG and USAR facilities do not provide adequate training, storage, or parking space. The BRAC Commission has determined that a new AFRC should be constructed at Camp Withycombe that would provide the space and resources necessary for the referenced units to meet their readiness, recruiting and retention,



North **NOT TO SCALE**

Source: Microsoft, 2007, [www.mappoint.com](http://www.mappoint.com)

**FIGURE 1-1**  
Vicinity Map  
*EA for Implementation of BRAC Actions  
at Camp Withycombe*

and training objectives. The proposed AFRC would result in significant operational cost savings for ARNG and would improve quality of life and morale of these relocated units. The consolidation of the units into a single facility would enhance training time and command and control, thereby, improving the ability of ARNG to fulfill its overall mission.

## 1.3 Scope of Analysis

This Environmental Assessment (EA) has been developed in accordance with the National Environmental Policy Act (NEPA) implementing regulations found in Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 40 Code of Federal Regulations (CFR) Part 1500 through Part 1508 (President's Council on Environmental Quality [CEQ], 2002), and Environmental Analysis of Army Actions, 32 CFR 651 (Office of the Deputy Assistant Secretary of the Army, 2002). This EA was developed to identify the potential environmental and socioeconomic impacts of constructing a new AFRC at Camp Withycombe in Clackamas, OR and relocating ORARNG and USAR units from other locations to the new AFRC to support realignment. Its purpose is to inform decision makers and the public of the likely consequences of the proposed action and alternatives. BRAC 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 BRAC Commission, (ii) the need for transferring functions to any military installation which has been selected as the receiving installation, or (iii) military installations alternative to those recommended or selected. The BRAC Commission's deliberation and decision, 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. Potential impacts resulting from construction and operation of the proposed AFRC and the relocation of ORARNG and USAR units to the AFRC are considered in this EA. This EA also considers how the proposed action may interact with present and reasonably foreseeable actions that are not directly related to the proposed action.

## 1.4 Agency and Public Participation

Public participation opportunities with respect to this EA and decision making on the proposed action are guided by 32 CFR Part 651. ARNG invites public participation in the evaluation of 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.

Conceptual planning for the proposed AFRC Complex occurred in conjunction with the overall development of the Draft 2007 Camp Withycombe Development Plan (Oregon Military Department [OMD], 2007). The post development plan was evaluated by future tenant units, post commanders, OMD staff, and 28 local area stakeholders in a charrette workshop held at Camp Withycombe on 21 December 2006. Local stakeholder participants

included representatives from the Oregon Department of Transportation (ODOT), neighborhood associations, and Clackamas County economic development, planning and transportation departments. OMD received general comments, acceptance, and support for the proposed future development on the post, including the proposed AFRC. The proposed post development was considered by the stakeholders as being consistent and compatible with surrounding land uses.

Correspondence letters and copies of the Draft EA and Draft Finding of No Significant Impact (FNSI) were sent to pertinent federal/state/local regulatory agencies, Native American Tribes, and other entities to satisfy the NEPA consultation requirements for the EA (Appendix A). All received comments are included in Appendix A and discussed in the pertinent sections of the EA.

The Final EA and Draft FNSI were made available to the public for review and comment for a period of 30 days during October 18 – November 16, 2008. The public review period was announced in a public notice published in the *Oregonian* newspaper out of Portland, Oregon (Appendix B). Copies of the EA and Draft FNSI were made available for public review during the review period on the BRAC website [http://www.hqda.army.mil/acsim/brac/env\\_ea\\_review.htm](http://www.hqda.army.mil/acsim/brac/env_ea_review.htm), and at the Multnomah County Library (Central Library) in Portland, Oregon and at the Clackamas Corner Library in Happy Valley, Oregon. Throughout this process, the public could submit comments and obtain information on the status and progress of the proposed action and the EA through the ORARNG Public Affairs Office. No comments were received during the public review period.

## 1.5 Relevant Statutes and Executive Orders

The decision on whether to proceed with the proposed action rests on numerous factors such as mission requirements, schedule, availability of funding, and environmental considerations. In addressing environmental considerations, Camp Withycombe is guided by numerous federal statutes (and their implementing regulations), Executive Orders (EOs), State of Oregon laws, and Clackamas County ordinances. Federal statutes relevant to the proposed action include, but are not limited to, the Clean Air Act, Clean Water Act (CWA), Noise Control Act, Endangered Species Act, National Historic Preservation Act, Archaeological Resources Protection Act, Resource Conservation and Recovery Act (RCRA), and Toxic Substances Control Act. EOs bearing on the proposed action, include but are not limited to, 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 13175 (*Consultation and Coordination with Indian Tribal Governments*), EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*), and EO 13423 (*Strengthening Federal Environmental, Energy, and Transportation Management*). 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 & Information Exchange Web site at <http://www.denix.osd.mil>.

The National Defense Authorization Act for Fiscal Year 2002 Public Law 107-107 and the Defense Closure and Realignment Act of 1990, Public Law 101-510, include streamlining provisions that modify the scope of NEPA analysis by placing certain limits on what is analyzed.

## 1.6 Impact Analysis Performed

This EA identifies, documents, and evaluates the effect of implementing BRAC actions at Camp Withycombe. An interdisciplinary team of environmental scientists, biologists, planners, economists, engineers, archaeologists, historians, and military technicians has analyzed the proposed action and alternatives in consideration of existing conditions and has identified relevant beneficial and adverse effects associated with the action. The proposed action is described in Section 2 and reasonable alternatives to the proposed action are described in Section 3. Existing conditions, considered to be the “baseline” conditions, are described in Section 4. The expected effects of the proposed action are presented in Section 4 immediately following the description of baseline conditions for each resource covered by the EA. Section 4 also addresses the potential for cumulative effects, and identifies mitigation measures where appropriate. Section 5 presents the conclusions of the analyses.

## 2 Description of the Proposed Action

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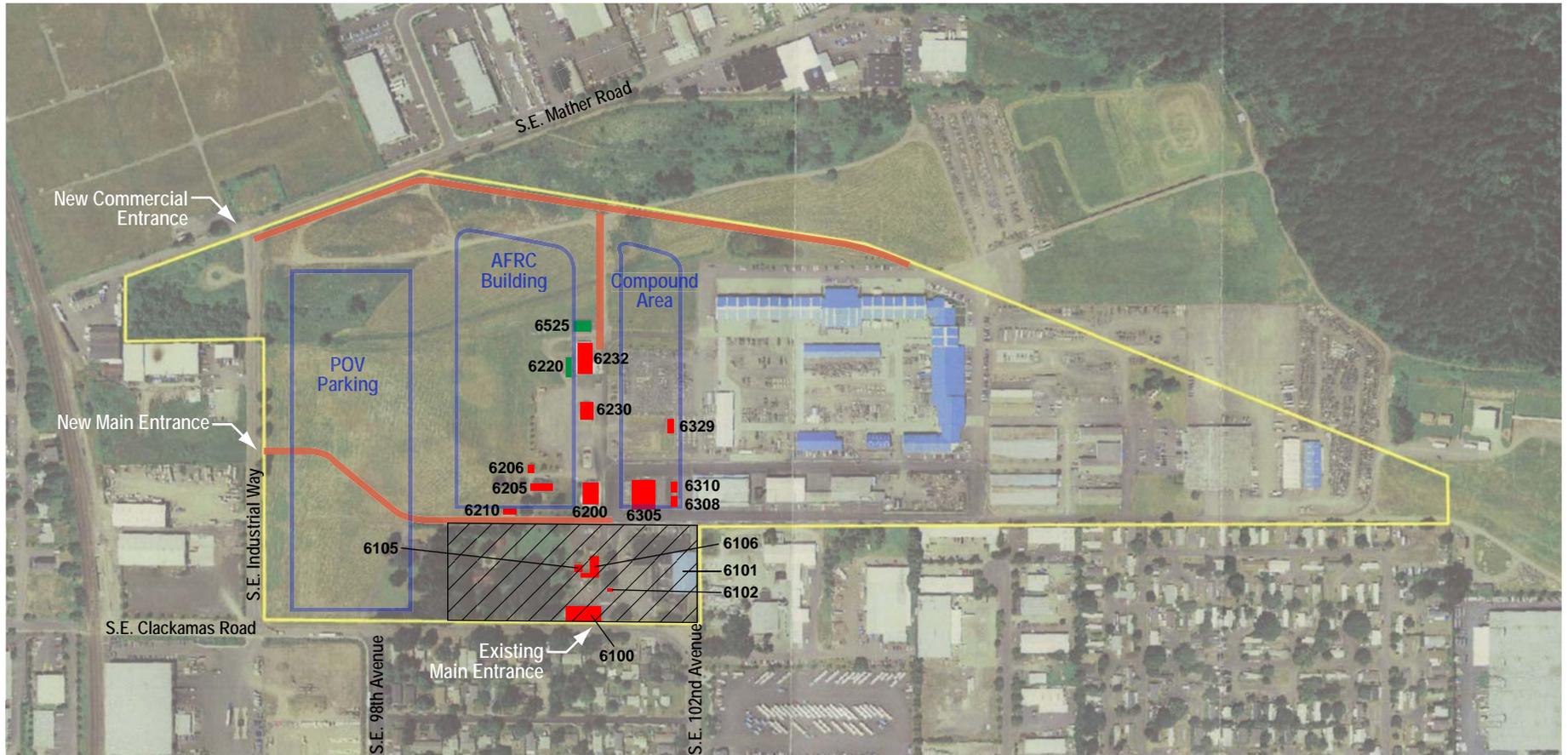
### 2.1 Introduction

The proposed action is to implement the BRAC Commission's recommendations pertaining to Camp Withycombe, as mandated by the BRAC legislation, Public Laws 101-510 and 107-107. The BRAC Commission's recommendations pertaining to Camp Withycombe are to construct a new AFRC at Camp Withycombe; relocate ORARNG units currently at Camp Withycombe and ORARNG units from Lake Oswego Armory in Lake Oswego, Maison Armory in Tigard and Jackson Armory in Portland to the new AFRC; and to relocate USAR units from Sears Hall Reserve Center in Portland and from Sharff Hall Reserve Center in Portland to the new AFRC.

### 2.2 Proposal Implementation

The proposed site layout for the AFRC Complex is shown on Figure 2-1. The layout and conceptual design of the AFRC Complex were developed as part of the overall development of the Draft 2007 Camp Withycombe Development Plan (OMD, 2007). As shown on Figure 2-1, the AFRC Complex would be constructed in the western part of Camp Withycombe. The primary components of the Complex would be the AFRC building, compound area, and privately-owned vehicle (POV) parking area. The layout of each component within its designated area would be determined during final design of the Complex. Based on its preliminary design, the AFRC building would be a multi-story structure of permanent masonry and steel construction. It would be approximately 260,000 square feet (sf) in total area and would primarily include an assembly hall, classrooms, learning centers, administrative offices, storage rooms, break room, physical fitness room, kitchen, latrines, and shower facilities. Based on its preliminary design, the compound area within the AFRC Complex would primarily include a 227,000-sf government-owned vehicle (GOV) parking area, 26,000-sf unheated storage and vehicle maintenance shop, 400-sf flammable materials storage shed, and 300-sf controlled waste storage shed. The POV parking area within the AFRC Complex would be approximately 297,000 sf in total area.

Under the proposed action, 14 buildings would be demolished, 2 buildings would be relocated, and an approximately 6-acre area immediately south of the proposed AFRC Building and Compound Area would be designated a "Historic Area" (see Figure 2-1). As shown on Figure 2-1, 10 of the 14 buildings that would be demolished and the 2 buildings that would be relocated are located within the construction footprint of the AFRC Complex and the remaining 4 buildings that would be demolished are located within the area proposed to be the Historic Area. Table 2-1 presents information on the buildings that would be demolished and relocated under the proposed action.



- Legend
- Camp Withycombe Boundary
  - AFRC Complex
  - Proposed Historic Area
  - Buildings to be Demolished
  - Buildings to be Relocated to Historic Area
  - New Roadway



**FIGURE 2-1**  
 Components of Proposed Action  
 EA for Implementation of BRAC Actions  
 at Camp Withycombe

Source: Camp Withycombe

TABLE 2-1  
BUILDINGS TO BE DEMOLISHED AND RELOCATED UNDER THE PROPOSED ACTION

Building No.	Name/Function	Area (square feet)	NRHP Eligibility	Removal Action
6100	Classroom	4,905	Not	Demolish
6102	Access Control	76	Not	Demolish
6105	Recruiting Office	2,068	Not	Demolish
6106	Recruiting Office	499	Not	Demolish
6200	741 BN HQ	4,160	Not	Demolish
6205	Family Support	1,124	Not	Demolish
6206	Storage	240	Not	Demolish
6210	Storage	1,168	Not	Demolish
6220	Quonset Hut (Museum Display)	1,156	Not	Relocate to Historic Area
6230	Museum Storage	1,354	Not	Demolish
6232	Oregon Military Museum	6,323	Not	Demolish
6305	OSDF/741 HQ	4,427	Eligible	Demolish
6308	Ammo Storage	450	Eligible	Demolish
6310	Ammo Storage	450	Eligible	Demolish
6329	Latrine/Shower	981	Not	Demolish
6525	Horse Barn	1,576	Eligible	Relocate to Historic Area

NRHP – National Register of Historic Places

741 BN HQ – 741 Headquarters Battalion

OSDF/741 HQ – Oregon State Defense Force/741 Headquarters

As indicated in Table 2-1, three of the buildings within the construction footprint of the AFRC Complex (Buildings 6305, 6308, and 6310) proposed to be demolished are eligible for listing on the National Register of Historic Places (NRHP). The buildings that would be relocated are the Quonset hut (Building 6220) which is part of the Oregon Military Museum (Building 6232) and the horse barn (Building 6525) which is eligible for NRHP listing. The proposed actions involving the demolition of Buildings 6305, 6308, and 6310 and relocation of Buildings 6220 and 6525 constitute significant adverse effects on these NRHP-eligible buildings. The Oregon State Historic Preservation Office (SHPO), US National Guard Bureau (NGB), ORARNG, and the Clackamas County Historic Review Board (County Historic Board) conducted Section 106 consultation and agreed that these significant adverse effects could be mitigated if certain actions were taken. The actions, described below, have

been memorialized in a Memorandum of Agreement (MOA) among SHPO, NGB, ORARNG and the County Historic Board (see Appendix A). Under the terms of the MOA, ORARNG would create a Historic Area at Camp Withycombe that would be readily accessible to the public. ORARNG would relocate the Quonset hut and horse barn to the new Historic Area. ORARNG would relocate the Oregon Military Museum and the contents of Building 6230, which is used for museum storage, to the existing NRHP-eligible Clackamas armory (Building 6101). The Clackamas armory is located in the area designated to be the Historic Area (see Figure 2-1). The Clackamas armory would house the Oregon Military Museum after the new AFRC is constructed. Finally, ORARNG would conduct 35 mm black and white or digital photo-documentation of all the NRHP-eligible buildings and structures before they are moved, demolished or altered.

Development of the AFRC Complex under the proposed action would include upgrades/modifications to the post utility and roadway infrastructure. Utility systems located within the AFRC Complex area as well those that connect to or would otherwise service the Complex would be upgraded or replaced to accommodate operation of the Complex and to meet the utility demand increase that would result from the unit relocations. The utility systems that would be upgraded or replaced under the proposed action would include electrical, storm drainage, sanitary sewer, potable water, lighting, and communication systems.

The primary roadway infrastructure modifications that would be included under the proposed action would be the relocation of the main entrance gate, construction of a commercial entrance gate, and construction of new roads within the post that would service the AFRC Complex and connected areas (see Figure 2-1). The proposed roadway infrastructure modifications are needed to accommodate the increase in traffic that would result from the unit relocations. The new gates and roads would separate commercial and military traffic from general POV traffic, thereby, minimizing congestion. As shown on Figure 2-1, the main entrance gate would be relocated from its present location on S.E. Clackamas Avenue to S.E. Industrial Way. The new main entrance gate would serve as the non-commercial entry point for military personnel and civilian employees/contractors. The existing gate on S.E. Clackamas Avenue would be retained and used as a visitor entrance to the area to be developed as the Historic Area. As shown on Figure 2-1, the commercial entrance gate would be constructed on S.E. Mather Road. The commercial gate would serve as the entry point for commercial delivery trucks and military vehicles. As shown on Figure 2-1, the new roads that would be constructed would extend from the new gates to the existing post road system. The road off of the main entrance gate would provide direct non-commercial access to the AFRC POV parking area, building, and compound area. The road off of the commercial entrance gate would provide direct commercial/military vehicle access to the AFRC building and compound area. The alignments of the proposed roads may be slightly modified during final design.

Tables 2-2 and 2-3 present information on the ORARNG and USAR units, respectively, that would be relocated to the new AFRC at Camp Withycombe under the proposed action. As indicated in Table 2-2, approximately 322 military personnel and 2 civilian employees assigned to ORARNG units from Lake Oswego Armory, Maison Armory, and Jackson Armory would be relocated to the new AFRC at Camp Withycombe. As indicated in Table 2-3, approximately 420 military personnel and 9 civilian employees assigned to USAR units from Sears Hall Reserve Center and Sharff Hall Reserve Center would be relocated to the new AFRC. Most of the ORARNG and USAR military personnel that would be relocated to Camp Withycombe are weekend drill soldiers. Weekend drills for such personnel are

typically conducted one weekend a month. As such, most of the military personnel that would relocate to Camp Withycombe would be on post only one weekend a month, except during emergencies which may require them to be on post for longer periods of time. Weekend drills would be staggered at Camp Withycombe so not all personnel would be on post during the same weekend.

In addition to the ORARNG and USAR units being relocated from other locations, the new AFRC would also accommodate approximately 579 military personnel and 14 civilian employees assigned to ORARNG units currently at Camp Withycombe. These units currently occupy several facilities scattered throughout the post, including the Clackamas armory. As such, the new AFRC would accommodate an approximate total of 1,321 military personnel and 25 civilian employees. The AFRC would be operated by the ORARNG and USAR units being relocated and the existing workforce at Camp Withycombe. No additional military personnel would be relocated and no additional civilians would be hired to operate the AFRC.

TABLE 2-2

ORARNG UNITS TO BE RELOCATED TO NEW AFRC AT CAMP WITHYCOMBE (NUMBERS ARE APPROXIMATE)

ORARNG Unit	Military Personnel	Civilian Employees
<i>Lake Oswego Armory</i>		
82 BDE HQ	38	0
82 ROC	23	0
Subtotal	61	0
<i>Maison Armory</i>		
41 HHC BCT	149	1
Co B STB 41 IBCT	72	1
Subtotal	221	2
<i>Jackson Armory</i>		
234 Army Band	40	0
<b>TOTAL</b>	<b>322</b>	<b>2</b>

ORARNG – Oregon Army National Guard

AFRC – Armed Forces Reserve Center

82 BDE HQ - 82 Brigade Headquarters

82 ROC - 82 Rear Operations Center

41 HHC BCT - 41 Headquarters and Headquarters Company Brigade Combat Team

Co B STB 41 IBCT - Company B Special Troops Battalion 41 Infantry Brigade Combat Team

TABLE 2-3

USAR UNITS TO BE RELOCATED TO NEW AFRC AT CAMP WITHYCOMBE (NUMBERS ARE APPROXIMATE)

USAR Unit	Military Personnel	Civilian Employees
Sears Hall Reserve Center		
320th PSYOP Co	83	2
HHD 364TH CA BDE	151	2
HHC 70th RRC Retention Transition NCOs	6	0
Subtotal	240	4
Sharff Hall Reserve Center		
671st EN Co (MRB)	115	1
126th Chaplain DET	2	0
HQ 379th AG Co (Postal)	5	1
379th AG CO (Postal)	58	1
Security Guards	0	2
Subtotal	180	5
<b>TOTAL</b>	<b>420</b>	<b>9</b>

USAR – U.S. Army Reserve

AFRC – Armed Forces Reserve Center

320th PSYOP Co - 320th Psychological Operations Company

HHD 364TH CA BDE - Headquarters and Headquarters Detachment 364th Civil Affairs Brigade

HHC 70th RRC Retention Transition NCOs - Headquarters and Headquarters Company 70th Recruiting and Retention Command Retention Transition Non-commissioned Officers

671st EN Co (MRB) - 671st Engineering Company (Multi-Role Brigade)

126th Chaplain DET - 126th Chaplain Detachment

HQ 379th AG Co (Postal) - Headquarters 379th Adjutant General Company (Postal)

379th AG Co (Postal) - 379th Adjutant General Company (Postal)

# 3 Alternatives

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## 3.1 Introduction

NEPA requires consideration of alternatives to the proposed action. To warrant detailed evaluation, an alternative must be reasonable. Reasonable alternatives must be reasonably foreseeable and adequately defined for decision-making (any necessary preceding events having taken place), affordable, capable of implementation, and capable of meeting the purpose of and need for the action. In accordance with BRAC, only alternatives that are within the bounds of the BRAC Commission's recommendation require consideration in this EA. As such, sites outside of Camp Withycombe are not required to be considered in the alternatives analysis for the proposed action.

## 3.2 Alternatives Analysis

Conceptual planning for the AFRC Complex and associated components of the proposed action was conducted as part of the overall development of the Draft 2007 Camp Withycombe Development Plan (OMD, 2007). Facility siting and site layout considerations were based on the space and operational requirements of the future tenant units and the relevant constraints of the post property. Through the planning process, it was determined that the undeveloped area in the western part of Camp Withycombe is the only site on the post that could accommodate the space requirements of the AFRC Complex. The amount of available space for future development at Camp Withycombe has been reduced by the transfer of more than half of the original post property to ODOT for the proposed Sunrise Corridor highway. Army regulations in 32 CFR 651.34 require that alternatives be evaluated that can be realistically accomplished. Demolition of existing facilities housing the Oregon Sustainment Maintenance Site (OSMS) or the U.S. Property and Fiscal Office missions at Camp Withycombe to make room for the proposed AFRC can not be realistically accomplished. Because sufficient space does not exist in any other part of the post, there is no alternative site for the AFRC Complex other than the western portion of the post.

Several site layout alternatives for the AFRC Complex within the western portion of the post were considered during the planning process. These initial alternatives were evaluated in a charrette workshop held at Camp Withycombe on 21 December 2006. The site layouts were evaluated based on their potential to accommodate AFRC operations and their compatibility with other components of the development plan. Based on size requirements of the AFRC Complex and the limited space available at the site, it was determined that the site layouts did not differ significantly in how they would affect the environment. The site for the AFRC consists mostly of a maintained grassy field and has relatively low ecological value based on the type of vegetation and

habitat that it contains. Based on feedback received during the charrette, two site layout options were selected for further consideration. The two options were further evaluated through the planning process and a final site layout was developed which incorporated the favorable aspects of the two options evaluated as well as new aspects that were based on updated design considerations.

For the reasons presented above, it was determined that there is no reasonable alternative to the proposed site for the AFRC Complex. Site layout options for the AFRC Complex were rigorously evaluated during the planning process and, therefore, do not require re-examination in this EA. As a result, the proposed action (preferred alternative) and the no action alternative are evaluated in this EA.

### **3.3 Preferred Alternative**

The preferred alternative for this EA is to implement the proposed action as described in Section 2.2.

### **3.4 No Action Alternative**

NEPA requires consideration of a no action alternative to the proposed action. Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations as described in Section 2.1. Because the ARNG is required to comply with the BRAC Commission's recommendations pertaining to Camp Withycombe, the no action alternative is not a reasonable alternative of ARNG. However, it is evaluated in this EA to meet the requirements of NEPA and to serve as a benchmark for the evaluation of potential effects of the proposed federal action. The no action alternative is evaluated in detail in this EA.

# 4 Environmental Conditions and Consequences

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## 4.1 Introduction

This section describes the existing environmental and socioeconomic conditions potentially affected by the proposed action, as well as the potential environmental and socioeconomic impacts of implementing the proposed action or no action alternative. 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.

Subsequent to the description of the components 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 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 that 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, there could be a direct effect on soils resulting from erosion. This could indirectly affect water quality if storm water 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 it would be expected that vegetation would be reestablished 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 Effect: 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-term 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 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 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 non-federal) 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 (2006)*. CEQ guidance on cumulative impacts analysis states:

“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.” (CEQ, 2006)

### 4.1.6 Mitigation

The alternatives considered in this EA could have environmental and socioeconomic impacts resulting from implementation that would require mitigation. Should potentially significant adverse impacts be identified, measures that could be used to mitigate them would be 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
- Other institutional and/or engineering controls

Where no significant adverse impacts are identified, mitigation measures would not be required or proposed.

## 4.2 Land Use

### 4.2.1 Affected Environment

#### 4.2.1.1 Regional Geographic Setting and Location

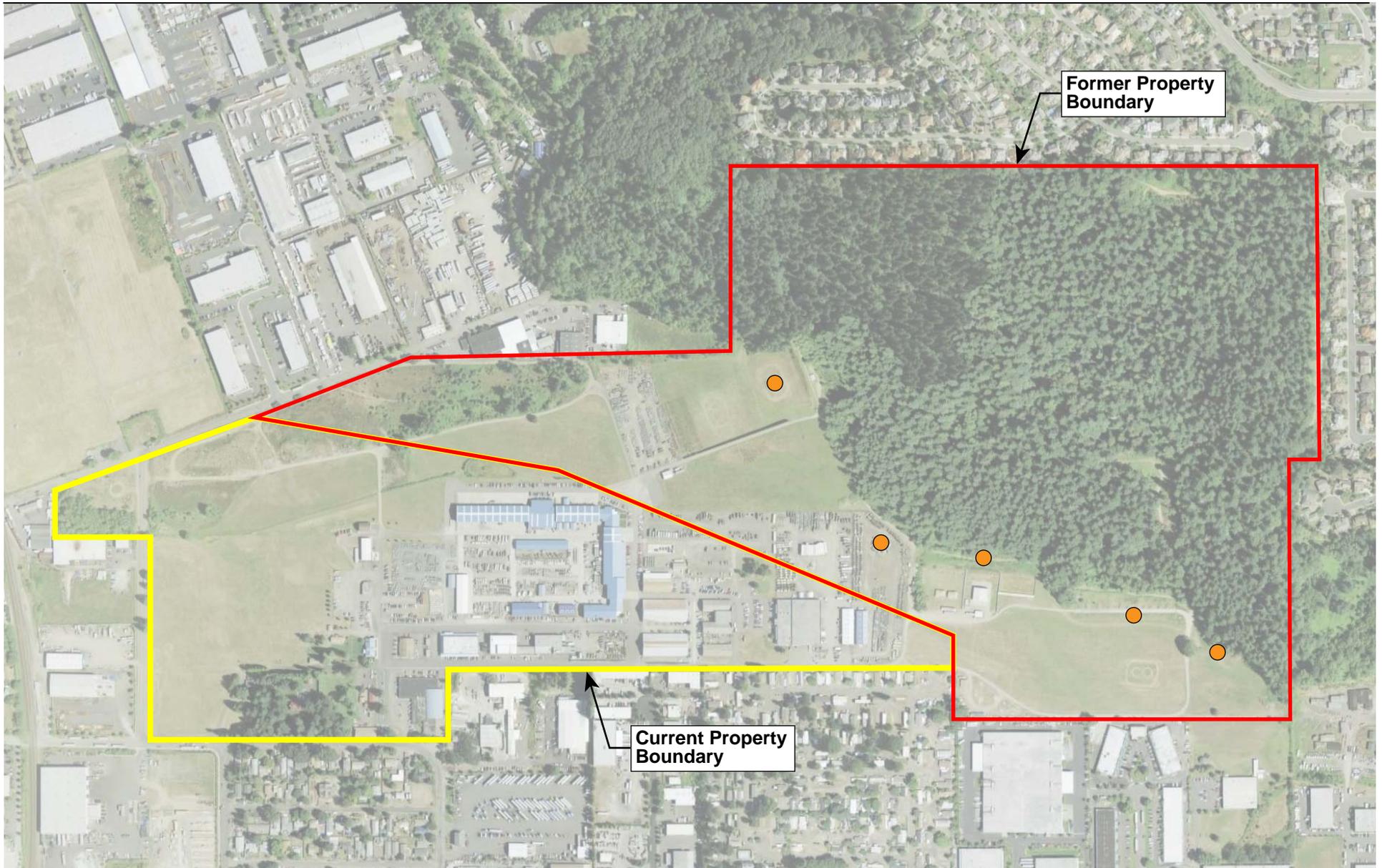
Camp Withycombe is located along the southeastern edge of the Portland metropolitan area in an unincorporated portion of Clackamas County, Oregon (see Figure 1-1).

Surrounding major cities include the cities of Portland, Milwaukie, Lake Oswego, West Lin, and Oregon City.

#### 4.2.1.2 Past and Existing Land Use

Camp Withycombe was originally developed by the federal government in 1909 for military use as the Clackamas Rifle Range. It transitioned over the years to a multi-purpose facility for ORARNG, and was transferred to the State of Oregon in 1956. The post historically encompassed 235 acres, but it now occupies 77.74 acres (Figure 4-1). Approximately 157 acres of the original post property were transferred to ODOT in 1990 for the proposed Sunrise Corridor highway (Figure 4-2). Five small arms firing ranges were once operated on the post (see Figure 4-1). These firing ranges are within the property transferred to ODOT and are currently inactive.

Camp Withycombe currently serves as the main logistics facility for ORARNG. The post is used for logistics support, vehicle/equipment maintenance, ammunition/repair parts storage, unit vehicle parking, unit training, training support activities, trans-shipment/load-out services, and support of the night-vision equipment rebuild program. The post property consists mainly of maintained grassy fields and developed grounds and is currently zoned by Clackamas County as General Industrial. The on-post developed areas consist of storage warehouses, parking lots, and various military facilities including an armory, military museum, and OSMS facility, which is the largest facility on the post and an important employer in the local area. The OSMS provides maintenance and repair services for ORARNG and U.S Army vehicles and equipment. The open field where the POV parking lot and AFRC building would be constructed under the proposed action is currently used infrequently for light recreation, such as museum war re-enactment, soccer, and operation of remote-control toy airplanes.



Former Property Boundary

Current Property Boundary

Former firing ranges

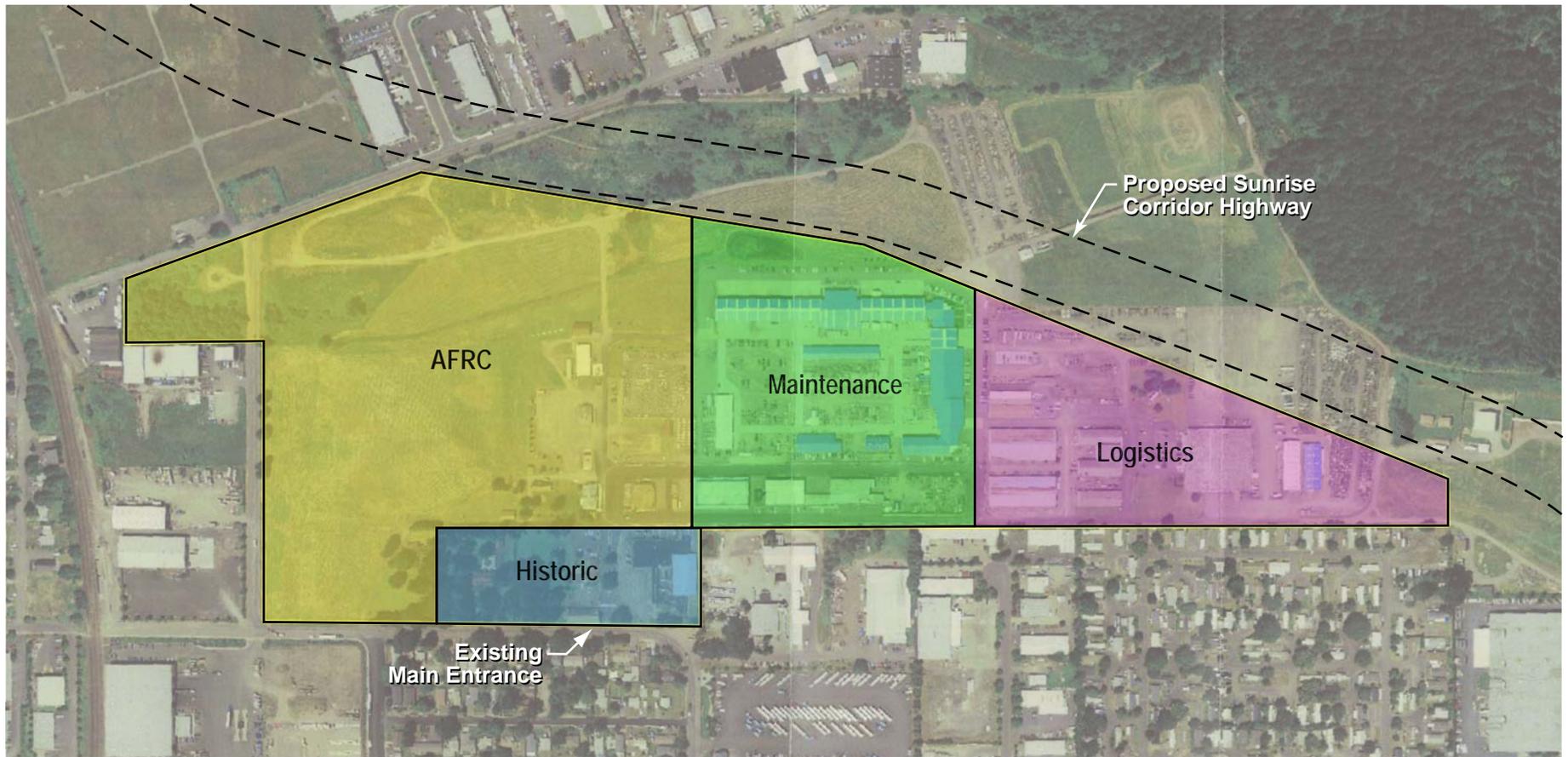
FIGURE 4-1  
 Current and Former Camp Withcombe Property  
 EA for Implementation of BRAC Actions  
 at Camp Withcombe

The immediate areas surrounding Camp Withycombe have the following land use designations: Light Industrial, Medium Density Residential, and Urban Low Density Residential. The land that has been transferred to ODOT is currently still utilized and managed by OMD.

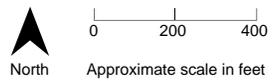
#### 4.2.1.3 Future Land Use

The entire property of Camp Withycombe is currently zoned by Clackamas County as General Industrial. The current county zoning designation for the post property is not proposed or expected to change in the foreseeable future. The future functional land use classifications for the post property proposed in the 2007 Draft Camp Withycombe Development Plan (OMD, 2007) are shown on Figure 4-2. As shown on Figure 4-2, Camp Withycombe is planned to be organized into four functional use areas: AFRC, Historic, Maintenance, and Logistics.

More than half of the original property of Camp Withycombe was transferred to ODOT for development of the proposed Sunrise Corridor highway. The Sunrise Corridor highway is proposed to be constructed in two phases, the western portion being the first phase and the eastern portion being the second phase. The western portion of the Sunrise Corridor, referred to as the Sunrise Project, would extend from Interstate (I)-205 located approximately 0.4 mile west of the post, through the transferred post property, to Rock Creek Junction, located approximately 2.2 miles east of the post. The eastern portion of the Sunrise Corridor, referred to as the Sunrise Parkway, would extend from Rock Creek Junction to U.S. Highway 26, located approximately 7.7 miles east of the post. Based on the Sunrise Corridor project schedule, construction of the Sunrise Project is scheduled to commence in early 2010 and construction of the Sunrise Parkway is scheduled to commence in early 2012.



Legend  
 ——— Camp Withycombe Boundary



Source: Camp Withycombe

**FIGURE 4-2**  
 Future Functional Area Organization of Camp Withycombe  
 EA for Implementation of BRAC Actions  
 at Camp Withycombe

## 4.2.2 Consequences

### 4.2.2.1 Proposed Action

The current Clackamas County zoning designation for Camp Withycombe (General Industrial) would not be changed by the proposed action. Adjacent land uses and land uses in the surrounding region would also not be affected in any manner by the proposed action. The proposed AFRC Complex and associated components of the proposed action are major components of the overall future land use plan for Camp Withycombe. The proposed AFRC Complex, building demolitions/relocations, Historic Area designation, and utility/roadway infrastructure upgrades/modifications under the proposed action are included in the Draft 2007 Camp Withycombe Development Plan (OMD, 2007), and have been planned in conjunction with other development and organizational modifications proposed for the post. Based on the draft development plan, most of the western part of the post is proposed to be designated as the AFRC functional area (see Figure 4-2). The siting of the AFRC Complex in this area is consistent with the future functional use organization proposed for the post. Because the proposed action is an integral part of the overall development plan for Camp Withycombe, its implementation would have a positive impact on land use planning and the operational functionality of the post. The loss of recreational use of the open field where the POV parking lot and AFRC building would be constructed under the proposed action would have a minor impact on the current functional use of this part of the post. Recreational use of the site is infrequent and its overall functional value would be far outweighed by the functional value provided by the proposed AFRC Complex.

For these reasons, the proposed action would have a major positive impact on land use.

### 4.2.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on land use.

## 4.3 Air Quality

### 4.3.1 Affected Environment

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS include two types of air quality standards. Primary standards protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings (EPA, 2007). EPA has established NAAQS for six principal pollutants, which are called criteria pollutants (Table 4-1).

TABLE 4-1  
NATIONAL AMBIENT AIR QUALITY STANDARDS CRITERIA POLLUTANTS

Pollutant	Primary Standards	Averaging Times	Secondary Standards
	<b>a</b>		
Carbon Monoxide	9 ppm (10 mg/m <sup>3</sup> )	8-hour <sup>b</sup>	None
	35 ppm (40 mg/m <sup>3</sup> )	1-hour <sup>b</sup>	None
Lead	1.5 µg/m <sup>3</sup>	Quarterly Average	Same as Primary
Nitrogen Dioxide	0.053 ppm (100 µg/m <sup>3</sup> )	Annual (Arithmetic Mean)	Same as Primary
Particulate Matter (PM10)	Revoked <sup>c</sup>	-----	Revoked <sup>c</sup>
	150 µg/m <sup>3</sup>	24-hour <sup>d</sup>	Same as Primary
Particulate Matter (PM2.5)	15.0 µg/m <sup>3</sup>	Annual <sup>e</sup> (Arithmetic Mean)	Same as Primary
	35 µg/m <sup>3</sup>	24-hour <sup>f</sup>	Same as Primary
Ozone	0.08 ppm	8-hour <sup>g</sup>	Same as Primary
Sulfur Oxides	0.03 ppm	Annual (Arithmetic Mean)	-----
	0.14 ppm	24-hour <sup>b</sup>	-----
	-----	3-hour <sup>b</sup>	0.5 ppm (1300 µg/m <sup>3</sup> )

<sup>a</sup> ppm = parts per million, µg/m<sup>3</sup> = micrograms per cubic meter

<sup>b</sup> Not to be exceeded more than once per year.

<sup>c</sup> Revoked, due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution, the agency revoked the annual PM10 standard in 2006 (effective December 17, 2006).

<sup>d</sup> Not to be exceeded more than once per year on average over 3 years.

<sup>e</sup> 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m<sup>3</sup>.

<sup>f</sup> 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m<sup>3</sup> (effective December 17, 2006).

<sup>g</sup> 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

Source: <http://www.epa.gov/air/criteria.html> (EPA, 2007a)

Areas that meet the air quality standard for the criteria pollutants are designated as being “in attainment.” Areas that do not meet the air quality standard for one of the

criteria pollutants may be subject to the formal rule-making process and designated as being “in nonattainment” for that standard.

Section 176(c)(1) of the CAA, also known as the General Conformity Rule, prohibits the federal government from conducting, supporting, or approving any actions that do not conform to an EPA-approved State Implementation Plan. A conformity review must be performed when a federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS. Under the review, the proposed action is evaluated to determine whether it would jeopardize the attainment status of a region or aggravate the non-attainment problem.

Air quality in the State of Oregon is regulated by the Oregon Department of Environmental Quality (DEQ). The Portland area has historically suffered from poor air quality during winter months when cooler temperatures promote incomplete combustion and when pollutants are trapped near the ground by atmospheric inversions. In March 1978, EPA designated the Portland area as a non-attainment area for 8-hour carbon monoxide (CO). The primary human-caused source of carbon monoxide is incomplete combustion of carbon-based fuels through the use of gasoline-powered motor vehicles. Other important sources of CO emissions are woodstoves, open burning, and industrial boilers.

Through the efforts of the Oregon DEQ and the regulated community, air quality in the Portland area has improved over time. In 1996, monitoring data demonstrated that the Portland area met the 8-hour CO standard and was eligible for redesignation to attainment. In 1997, EPA approved the Oregon DEQ’s Portland Area CO Maintenance Plan which demonstrated that the area would continue to maintain the CO standard and which officially designated the Portland area as attainment for CO. The Oregon DEQ has developed a second 10-year maintenance plan to ensure that the area will continue to achieve the CO standard into 2017.

On 15 May 2007, Camp Withycombe was issued a Simple Air Contaminant Discharge Permit (Permit No. 03-0049) by the Oregon DEQ.

## 4.3.2 Consequences

### 4.3.2.1 Proposed Action

The U.S. Air Force Air Conformity Applicability Model, version 4.4.3, was used to estimate air pollutant emissions that would be associated with the proposed action. Based on the model results, total emissions associated with the proposed action are expected to include a one-time release of 132.6 tons of CO due to construction activity, as well as an ongoing increase of 0.87 ton/year of CO due to operation of the AFRC Complex. The expected annual emissions of CO under the proposed action would be less than 70 tons/year. These increases are well below the conformity threshold value. Therefore, a general conformity review has been determined to be unnecessary for the proposed action. The model results and Record of Non-Applicability for the conformity review is provided as Appendix C.

Construction and demolition activities under the proposed action would result in short-term, minor impacts to air quality. Fugitive dust (particulate matter) and construction

vehicle exhaust emissions would be generated during construction and would vary daily, depending on the level and type of work conducted.

Fugitive dust would be generated by construction vehicle and equipment travel on dirt surfaces and by wind action on stockpiled materials. Fugitive dust from stockpiled materials would consist primarily of nontoxic particulate matter. Fugitive dust would be controlled at the site using best management practices (BMPs), such as periodic watering of cleared areas and stockpiled materials, and mulching or vegetative cover for the cleared areas.

Pollutants that would be emitted from the internal combustion engine exhausts of construction vehicles and equipment include nitrogen oxide (NO), CO, PM10, and volatile organic compounds (VOCs). These types of exhaust emissions would be temporary, and at their expected generation levels, would not significantly impact air quality. Fugitive dust and exhaust emissions from the proposed construction/demolition activities would not collectively represent a new major source of air emission that would require an air operation permit. Operation of the proposed AFRC Complex would also not include any new source of air emission that would be regulated under an air operation permit. Increases in air emissions from heating units, water heaters, and generators in the proposed AFRC Complex would be offset by decreases in such emissions at the facilities from which the referenced units would be relocated.

The relocation of ORARNG and USAR unit personnel to Camp Withycombe under the proposed action is not expected to increase vehicle emissions. The facilities from which the personnel are being relocated and Camp Withycombe are located within the same metropolitan area. As such, there would be no appreciable change in commute time for the personnel who would be relocated.

For these reasons, the proposed action would have a minor impact on air quality.

#### 4.3.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on air quality.

## 4.4 Noise

### 4.4.1 Affected Environment

For the determination of impacts to human receptors, noise measurements are weighted to increase the contribution of noises within the normal range of human hearing and to decrease the contribution of noises outside the normal range of human hearing. For humans, this is considered an A-weighted scale (dBA). When sound pressure doubles, the dBA level increases by 3. Psychologically, most humans perceive a doubling of sound with an increase of 10 dBA (EPA, 1974; Danish Wind Industry Association, 2003). Sound pressure decreases with distance from the source. Typically, the amount of noise

is halved as the distance from the source doubles (EPA, 1974; Danish Wind Industry Association, 2003).

The primary sources of noise at Camp Withycombe currently include mechanical sources (e.g., fans, motors, compressors, and generators), vehicular traffic, sirens, and intermittent construction. In the past, noise was also generated by five small arms firing ranges on the post. These firing ranges have been deactivated and are part of the property transferred to ODOT. Camp Withycombe was not included in the 2003 ORARNG Noise Management Plan. The firing ranges that were once part of the post were inactivated before the plan was prepared and the remaining operations did not warrant noise modeling. There have been no recent complaints regarding the noise from post activities that have been reported to Clackamas County, the Oregon DEQ, or to Camp Withycombe.

## 4.4.2 Consequences

### 4.4.2.1 Proposed Action

Construction and demolition activities associated with the proposed action would temporarily increase ambient noise levels in and around the construction and demolition areas. Construction-related noise would be audible around the Adjutant General's residence (Building 6110) located just south of the project area and within parts of the residential communities along the southern boundary of Camp Withycombe. Based on the type of construction activity and its location within the project area, the noise in these residential areas may at times be greater than 65 dBA, which is generally considered to be the maximum acceptable noise level for most residential land uses. However, the increased noise levels would be intermittent and limited to normal working hours and the overall construction period.

Operation of the proposed AFRC Complex is not expected to generate noise levels high enough to disturb nearby residences. The AFRC building would primarily be used for unit assembly, training, learning, and administrative purposes. The noise generated by most unit activities within the AFRC building would be negligible or not audible to receptors outside the walls of the building. Operation of the vehicle maintenance shop within the compound area of the AFRC Complex would involve routine vehicle maintenance activities such as tune ups, tire changes, and light repairs. The noise generated by operation of the vehicle maintenance shop would be intermittent, limited to normal working hours, and at levels that are not expected to disturb nearby residences. The relocation of ORARNG and USAR units from other facilities to the new AFRC at Camp Withycombe under the proposed action would increase traffic-related noise on and in the vicinity of the post. However, the relocation of the main entrance gate and construction of a commercial entrance gate under the proposed action would decrease the amount of post-related traffic in the residential community located adjacent to the existing main gate. The diversion of commercial and non-commercial traffic from the existing main entrance gate to the proposed new gates would reduce traffic-related noise in this residential community.

For these reasons, the proposed action would have minor noise impacts.

#### 4.4.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no noise-related effects.

## 4.5 Geology, Topography, and Soils

### 4.5.1 Affected Environment

Camp Withycombe is underlain by the alluvium geologic unit. The alluvium consists of clay, silt, sand, and gravel. The overall thickness of the alluvium at Camp Withycombe is not known. Boring logs for monitoring wells installed on the post indicate that silty clay extends from the ground surface to a depth of 5 to 10 feet (ft) below ground surface (bgs) where it overlies dense sandy gravel. The gravel extends to at least 22.5 ft bgs based on the deepest well installed.

Camp Withycombe has a relatively flat terrain. Surface elevations range from approximately 105 ft above mean sea level (msl) at the site of the proposed AFRC Complex to approximately 125 ft above msl in the eastern portion of the post.

Based on the Natural Resources Conservation Service (NRCS), Soil Survey of Clackamas County, Oregon (U.S. Department of Agriculture [USDA], 1985), the following Soil Map Units occur at Camp Withycombe as well as within the proposed action area: #3 - Amity Silt Loam, #17 - Clackamas Silt Loam, and #91A - Woodburn Silt Loam, 0 to 3 percent slopes. According to NRCS, Amity Silt Loam and Clackamas Silt Loam are deep and somewhat poorly drained soils and Woodburn Silt Loam, 0 to 3 percent is a deep and moderately well drained soil. Amity Silt Loam and Woodburn Silt Loam both formed in stratified glaciolacustrine deposits and typically occur on broad valley terraces. Clackamas Silt Loam formed in gravelly mixed alluvium and typically occurs on low terraces. None of these soils are classified by NRCS as being hydric; however, all of them may include hydric soil components depending on the landforms within which they occur. There is no prime farmland located on Camp Withycombe.

### 4.5.2 Consequences

#### 4.5.2.1 Proposed Action

The proposed action would not involve any intrusive construction activity that would affect subsurface geological formations. Construction and demolition activities under the proposed action would have a negligible impact on topography and a minor impact on soils. No significant land contouring would be required. Sediment and erosion controls would be implemented during construction and demolition activities to prevent any indirect impacts to surrounding soils. Such controls may include silt fences, hay bales, and seeding of cleared areas that are to remain exposed for long periods of time.

For these reasons, the proposed action would have no effect on geology, a negligible impact on topography, and a minor impact on soils.

#### 4.5.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on geology, topography, or soils.

## 4.6 Water Resources

### 4.6.1 Affected Environment

#### 4.6.1.1 Surface Water

There are no natural surface water bodies on Camp Withycombe. The majority of the post is located within the Deer Creek Watershed, which drains westward to the Willamette River. A small portion of the southwestern part of the post lies within the Cow Creek Watershed, which flows southward to the Clackamas River. A small retention pond is located just north of the OSMS facility (Figure 4-3). This pond receives storm water runoff from the OSMS facility and other on-post developed areas via catch basins and storm drains. The storm water drainage system of Camp Withycombe is discussed further in Section 4.11.1.2.

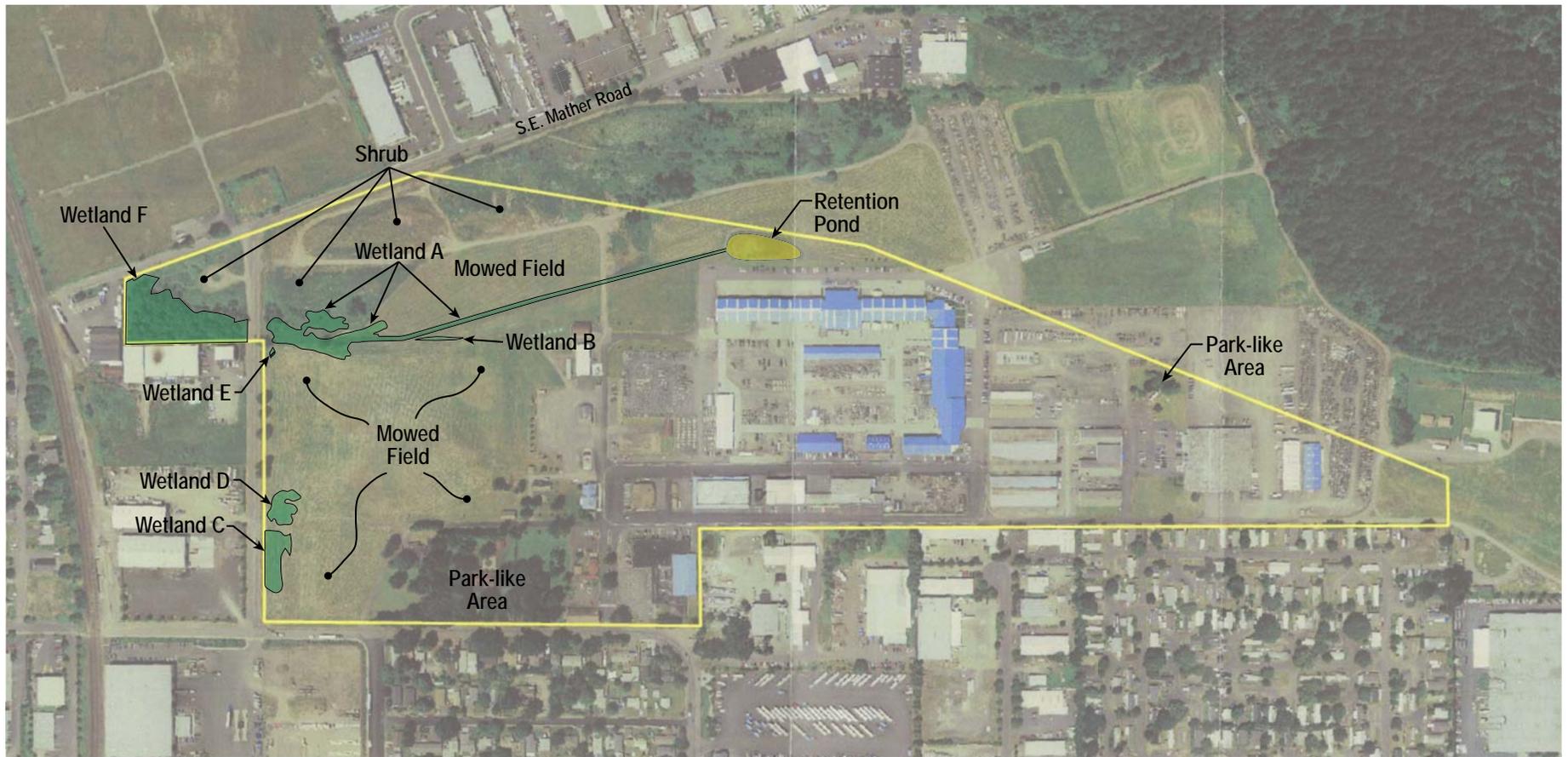
#### 4.6.1.2 Groundwater

Groundwater is defined as a subsurface water that has accumulated in the voids between soil particles and within porous bedrock. A water-bearing rock or rock formation is an aquifer. The water within an aquifer can migrate vertically and horizontally, discharging to surface waters or recharging deeper aquifers. Camp Withycombe does not contain any Sole Source Aquifers or Critical Aquifer Protection Areas as defined by EPA under the authority of the Safe Drinking Water Act.

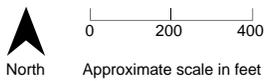
Shallow groundwater exists in the alluvium geologic unit beneath Camp Withycombe. The groundwater depth varies seasonally and is at or near the surface in the wetlands on post. Groundwater under the post generally flows to the south and west. Groundwater is not used at Camp Withycombe for any purpose.

#### 4.6.1.3 Floodplains

EO 11988, "Floodplain Management" (signed May 24, 1977), directs federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains. No portion of Camp Withycombe has been mapped as 100-year floodplain on Federal Emergency Management Agency Flood Insurance Rate Maps.



Legend  
 — Camp Withycombe Boundary



Source: Camp Withycombe

FIGURE 4-3  
 Natural Features of Camp Withycombe  
 EA for Implementation of BRAC Actions  
 at Camp Withycombe

#### 4.6.1.4 Wetlands

Based on wetland surveys conducted in 2002 and 2007 by PBS Engineering and Environmental, jurisdictional wetlands exist in the northwestern and southwestern parts of Camp Withycombe (see Figure 4-3). The largest wetland on post, referred to as Wetland F, is a palustrine forested wetland located on the western side of S.E. Industrial Way in the northwestern part of the post. Wetland F is approximately 1.2 acres in size and its hydrology is influenced mostly by storm water runoff that it receives from the portion of the post that is east of S.E. Industrial Way. Storm water is conveyed westward from the post into Wetland F via a culvert under S.E. Industrial Way. The remaining wetlands on post are palustrine emergent systems that consist mostly or entirely of herbaceous vegetation. The largest of these wetlands, referred to as Wetland A, is approximately 0.76 acre in size and consists of a drainage ditch and connected herbaceous wetland. Portions of the southwestern part of Wetland A are regularly mowed. The ditch and connected herbaceous system receive overflow during heavy storm events from an upstream retention pond that collects storm water runoff from on-post developed areas. In addition to storm water overflow from the retention pond, the hydrology of Wetland A is also influenced by precipitation and groundwater. Wetland A is hydrologically connected to Wetland F by the culvert underneath S.E. Industrial Way. The other on-post emergent wetlands (Wetlands B, C, D, and E) are all much smaller in size than Wetland A and are all regularly mowed. The hydrologies of these wetlands are influenced by precipitation and groundwater. As a result of regular mowing, storm water inputs, and surrounding land use, all of the wetlands on post are considered to be of relatively low quality.

### 4.6.2 Consequences

#### 4.6.2.1 Proposed Action

There are no natural surface water bodies or 100-year floodplain areas on Camp Withycombe. Sediment and erosion controls would be implemented during construction of the proposed AFRC Complex to prevent any indirect impacts to surface waters and floodplains outside of Camp Withycombe that receive storm drainage from the post. Storm water pollution prevention measures would be implemented during operation of the proposed AFRC Complex to prevent any indirect water quality impacts to surface waters outside the post.

Constructing the AFRC Complex may have a negligible, temporary impact on the surficial groundwater table during construction. Little or no dewatering is expected to be required during construction. Operation of the Complex would not involve withdrawals from, or discharges to, groundwater.

Construction of the AFRC Complex under the proposed action would impact Wetlands A and B, and has the potential to impact Wetlands C, D, and E (see Figure 4-3). Portions of Wetlands A and B are located within the proposed construction footprint of the AFRC Complex and Wetlands C, D, and E are located immediately adjacent to the proposed footprint. All of these wetlands are herbaceous systems that are of relatively low quality as a result of regular mowing, storm water inputs, and surrounding land use. The extent

to which the proposed action would impact wetlands would be determined during the design and permitting phases of the project. Based on the combined size of all the wetlands within and adjacent to the proposed construction footprint of the AFRC Complex, the maximum amount of wetland impact that could result from the proposed action would be approximately 1.27 acres. OMD would obtain a wetland removal-fill permit from the U.S. Army Corps of Engineers (USACE) and/or the Oregon Department of State Lands prior to the initiation of construction.

Impact avoidance and minimization measures would be incorporated into the design to the extent practicable to minimize the extent to which the proposed AFRC Complex would impact wetlands. Appropriate mitigation would be provided by OMD for the wetland impacts incurred by the project. The mitigation requirements of the project would be determined during permitting and would be outlined in the removal-fill permit that would be obtained. Preliminary mitigation options being considered by OMD for the proposed action include purchasing credits from a wetland mitigation bank and restoration/enhancement of the forested wetland on the western side of S.E. Industrial Way (Wetland F). Based on the small amount of wetland area that would be impacted and the low quality of the systems that would be impacted, the overall impact that the proposed action would have on wetlands would be minor. Appropriate mitigation for the wetland impacts would be provided and sediment and erosion controls would be implemented during construction to prevent any indirect impacts to wetlands that would not be directly impacted.

For these reasons, the proposed action would have no effect on surface waters or floodplains, a negligible impact on groundwater, and a minor impact on wetlands.

#### 4.6.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on water resources.

## 4.7 Biological Resources

### 4.7.1 Affected Environment

#### 4.7.1.1 Vegetation

The primary vegetation communities that exist on Camp Withycombe are mowed field, shrub, herbaceous wetland, forested wetland, and park-like communities (see Figure 4-3). Mowed field covers much of the western part of the post and consists of pasture grasses and non-native forbs, including meadow knapweed (*Centaurea pratensis*), rough cat's ear (*Hypochaeris radicata*), and wild carrot (*Daucus carota*). Shrub is located in the northern and northwestern part of the post and consists of black cottonwood (*Populus balsamifera*), Douglas fir (*Pseudotsuga menziesii*), and peafruit rose (*Rosa pisocarpa*). Herbaceous wetlands exist in the northwestern and southwestern parts of the post and are dominated by the non-native reed canarygrass (*Phalaris arundinacea*), and other

pioneering species such as bluegrass (*Poa* sp.), tall fescue (*Festuca arundinacea*), and soft rush (*Juncus effusus*). Forested wetland exists in the northwestern corner of the post, west of S.E. Industrial Way. This wetland has a canopy dominated by Oregon ash (*Fraxinus latifolia*) and Pacific willow (*Salix lasiandra*), and an understory dominated by reed canarygrass. Park-like communities exist in the southern part of the post near the main entrance gate and in the northeastern part of the post. The park-like community in the southern part of the post contains mature Sitka spruce (*Picea sitchensis*), Douglas fir, ponderosa pine (*Pinus ponderosa*), and giant sequoia (*Sequoiadendron giganteum*) trees and has an understory of landscaped vegetation. The park-like community in the northeastern part of the post is smaller and has a canopy of non-native ornamental and fruit trees and an understory of landscaped vegetation. Landscaped vegetation is also scattered throughout the developed portions of the post.

The overall vegetative quality of the mowed field, shrub, and herbaceous wetland communities on Camp Withycombe is very low. The mowed field and portions of the herbaceous wetlands on the post are regularly mowed. The shrub community is highly disturbed from past land use practices. The forested wetland located west of S.E. Industrial Way receives storm water runoff from the post and has been fragmented by development. Much of the vegetation within the park-like communities is not native; however, these communities are relatively well maintained by landscaping.

#### 4.7.1.2 Wildlife

Camp Withycombe is mostly developed and surrounded entirely by developed or disturbed land use. All of the undeveloped portions of Camp Withycombe are relatively disturbed and there are no natural surface water bodies on post. For these reasons, the overall quality of the wildlife habitat that Camp Withycombe provides is low. Wildlife usage of the post is also hindered by the security fence that exists along the entire perimeter of the property. Camp Withycombe provides limited wildlife habitat to terrestrial and amphibious species, and no habitat for aquatic species. Wildlife that has been sighted on the post includes rodents, deer, raccoon, and several types of birds, amphibians, and reptiles common to the area.

#### 4.7.1.3 Sensitive Species

Two federally listed terrestrial species have been documented to potentially occur in Clackamas County Oregon: the northern spotted owl (*Strix occidentalis caurina*), which is federally listed as Threatened, and Nelson's checker-mallow (*Sidalcea nelsoniana*), which is also federally listed as Threatened (U.S. Fish & Wildlife Service [USFWS], 2007). The bald eagle (*Haliaeetus leucocephalus*), which is state listed as Threatened, has also been documented to potentially occur in Clackamas County (Oregon Department of Fish and Wildlife, 2007). None of these species have ever been sighted on or in the vicinity of Camp Withycombe. Based on the habitat requirements of these species, it is very unlikely that they would occur on the post. No other sensitive species are known to occur on the post.

## 4.7.2 Consequences

### 4.7.2.1 Proposed Action

Construction of the AFRC Complex under the proposed action would impact mostly mowed field and to a lesser extent, shrub, herbaceous wetland, and potentially a small portion of the park-like community located in the southern part of the post. The overall vegetative quality of the mowed field, shrub, and herbaceous wetland communities that would be impacted is very low as a result of regular mowing and past land use practices. The amount of vegetation that would be displaced by the AFRC Complex would be determined during the design phase of the project, when the size and configuration of the AFRC Complex is finalized. Based on the low quality of the vegetation that exists within the site proposed for the AFRC Complex, the overall impact that the AFRC Complex would have on vegetation would be minor. Sediment and erosion controls would be implemented during construction to prevent any indirect impacts to vegetation that would not be directly impacted. Operation of the AFRC Complex would not involve any activity that would affect vegetation.

The overall quality of the wildlife habitat that Camp Withycombe provides is low. The post is mostly developed and surrounded entirely by developed or disturbed land use. All of the undeveloped portions of the post are relatively disturbed and wildlife usage of the post is hindered by the security fence that exists along the entire perimeter of the property. Construction of the AFRC Complex under the proposed action would displace low quality wildlife habitat that exists within the construction footprint, which is mostly mowed field and other disturbed vegetation. Wildlife on and in the vicinity of Camp Withycombe may be temporarily disturbed by construction and demolition noise during the construction period; however the overall impact is expected to be minor. The noise that would be generated during operation of the AFRC Complex has the potential to disturb wildlife within the vicinity of the Complex; however, the overall impact to wildlife is expected to be minor because the noise would be intermittent and at relatively low levels (see Section 4.4.2.1).

Camp Withycombe does not provide suitable habitat for any of the state or federally listed species that have been documented to potentially occur in Clackamas County, Oregon. No sensitive species are known to occur on the post.

In an email dated 7 August 2008, USFWS stated the following: “We have no comment to be provided regarding the proposed action. Consider this our official response” (see Appendix A).

For these reasons, the proposed action would have a minor impact on vegetation and wildlife and no effect on sensitive species.

### 4.7.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission’s recommendations pertaining to the post. Therefore, the no action alternative would have no effect on biological resources.

## 4.8 Cultural Resources

### 4.8.1 Affected Environment

Cultural Resources are defined in Army Regulation (AR) 200-1, Environmental Protection and Enhancement, Headquarters, Department of the Army, as:

- Historic Properties, protected through the National Historic Preservation Act (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 EO 13007
- Collections of artifacts and records pertaining to them as defined in 36 CFR 79

A statewide Integrated Cultural Resources Management Plan (ICRMP) for ORARNG was finalized in March 2007 (OMD, 2007a). Developed in accordance with AR 200-1, this plan integrates cultural resources management with mission activities and other OMD management programs. The ICRMP provides guidance on the identification and evaluation of cultural resources on ORARNG facilities, including inadvertent finds, and provides a schedule to accomplish the plan objectives during a five-year period.

EO 13175 - Consultation and Coordination With Indian Tribal Governments (05 January 2001) sets forth policy to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications; to strengthen the United States government-to-government relationships with Indian tribes; and to reduce the imposition of unfunded mandates upon Indian tribes. The Annotated Policy Document for the DoD American Indian and Alaska Native Policy (27 October 1999) and DoD Instruction 4710.02 – DoD Interactions with Federally Recognized Tribes (14 September 2006) directs ANG to make internal decisions on whether a Federal action has the potential to significantly affect protected tribal resources, tribal rights, or Indian lands. In accordance with EO 13175, the Annotated Policy Document, DoD Instruction 4710.02, and Oregon Revised Statutes Chapter 182, consultation among OMD and the nine federally recognized Tribes in Oregon has been conducted under the state's well established protocol for agency tribal communications (OMD, 2007c).

An archaeological survey of Camp Withycombe was conducted in 2000 (Applied Archaeological Research, 2000). The entire post property, including the portion transferred to ODOT, was examined by this survey. No archaeological resources were identified within the current post property during the survey. Two resources were identified within the portion of the post transferred to ODOT. A historic architectural inventory of the post was conducted in 1997. Based on the findings of this inventory, OMD, in consultation with SHPO, determined that 13 structures on the post are eligible

for listing on the National Register of Historic Places (NRHP). One of these structures is also included on the Clackamas County Register of Historic Places administered by the Clackamas County Historic Review Board. With the approval of SHPO, one of these structures was subsequently demolished and another structure (Building 6525) was moved from its original location to another location within the post.

## 4.8.2 Consequences

### 4.8.2.1 Proposed Action

No archaeological resources were identified within the current boundaries of Camp Withycombe during the past archaeological survey that examined the entire post property. As such, construction of the AFRC Complex under the proposed action is not expected to impact archaeological resources. Standard Operating Procedure (SOP) 6 of the ICRMP would be implemented in the event that archaeological resources are discovered during construction activities. SOP 6, *Inadvertent Discovery*, provides policy and procedures for the protection, evaluation, and coordination of archaeological resources in the event they are unexpectedly discovered on ORARNG facilities.

In accordance with EO 13175, the Annotated Policy Document, and DoD Instruction 4710.02, the proposed action was discussed in general at two regularly scheduled meetings of the Oregon Legislative Commission on Indian Services-sponsored Cultural Resources Cluster Group in late 2007. Tribal Cultural Resources representatives from the Confederated Tribes of the Warm Springs and the Confederated Tribes of the Grand Ronde requested additional information. Both of these Tribes were visited by the OMD's Cultural Resources Manager in early 2008. After detailed discussions, both Tribes indicated that they had no concerns regarding the proposed action as long as inadvertent discovery procedures would be followed during construction. In an email dated 11 July 2008, the Confederated Tribes of the Grand Ronde stated the following: "The Tribes Cultural Resources Department after reviewing the GIS databases regarding Cultural and Archaeological Resources for the project area has found that no negative impacts should occur during any proposed projects at this time" (see Appendix A).

As discussed in Section 2.2, 14 buildings would be demolished, 2 buildings would be relocated, and an approximately 6-acre area immediately south of the proposed AFRC Building and Compound Area would be designated a "Historic Area" under the proposed action (see Figure 2-1). As shown on Figure 2-1, 10 of the 14 buildings that would be demolished and the 2 buildings that would be relocated are located within the construction footprint of the AFRC Complex and the remaining 4 buildings that would be demolished are located within the area proposed to be the Historic Area. Three of the buildings within the construction footprint of the AFRC Complex (Buildings 6305, 6308, and 6310) proposed to be demolished are eligible for listing on the NRHP (see Table 2-1). The buildings that would be relocated are the Quonset hut (Building 6220) which is part of the Oregon Military Museum (Building 6232) and the horse barn (Building 6525) which is eligible for NRHP listing.

The proposed actions involving the demolition of Buildings 6305, 6308, and 6310 and relocation of Buildings 6220 and 6525 constitute significant adverse effects on these NRHP-eligible buildings. SHPO, NGB, ORARNG, and the County Historic Board

conducted Section 106 consultation and agreed that these significant adverse effects could be mitigated if certain actions were taken (all SHPO correspondence is kept on file at OMD in Salem, Oregon). The actions, described below, have been memorialized in a MOA among SHPO, NGB, ORARNG and the County Historic Board (see Appendix A). Under the terms of the MOA, ORARNG would create a Historic Area at Camp Withycombe that would be readily accessible to the public. ORARNG would relocate the Quonset hut and horse barn to the new Historic Area. ORARNG would relocate the Oregon Military Museum and the contents of Building 6230, which is used for museum storage, to the existing NRHP-eligible Clackamas armory (Building 6101). The Clackamas armory is located in the area designated to be the Historic Area (see Figure 2-1). The Clackamas armory would house the Oregon Military Museum after the new AFRC is constructed. Finally, ORARNG would conduct 35-millimeter black and white or digital (1600 x 1200 pixels at 300 pixels per inch or larger) photo-documentation of all the NRHP-eligible buildings and structures before they are moved, demolished or altered.

In a letter dated 21 July 2008, SHPO stated the following: “We have reviewed the Draft EA and Draft MOA for the BRAC actions at Camp Withycombe, Oregon. Based on this documentation, and past coordination with our office, the SHPO concurs with the finding of an Adverse Affect on National Register eligible buildings at Camp Withycombe. Additionally, we accept the MOA stipulations as mitigation for these adverse effects” (see Appendix A).

For these reasons, the proposed action would have significant adverse effects on cultural resources; however, the adverse effects on cultural resources would be mitigated when the provisions in the MOA with SHPO are completed.

#### 4.8.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission’s recommendations pertaining to the post. Therefore, no buildings would be demolished or relocated and a Historic Area would not be established on the post.

## 4.9 Socioeconomics

Socioeconomics comprises a number of resource areas including the following: economic activity (employment, unemployment, and income and earnings), population, and housing. Additionally, the topics of environmental justice and protection of children are addressed. Effects attributable to implementation of the proposed action on socioeconomic resources are assessed primarily through the use of the Economic Impact Forecast System (EIFS) model. Developed by the U.S. Army Construction Engineering Research Laboratory, the model provides a consistent method to evaluate specific socioeconomic effects associated with BRAC actions regardless of the location within the nation (USACE, 1994).

## 4.9.1 Affected Environment

### 4.9.1.1 Region of Influence

The region of influence (ROI) is the geographic area within which the majority of potential impacts to socioeconomic resources would be concentrated. The ROI for the proposed action is a seven-county area comprised of five counties in the State of Oregon (Clackamas, Columbia, Multnomah, Washington, and Yamhill) and two counties in the neighboring State of Washington (Clark and Skamania). Together, these counties comprise the Portland-Vancouver-Beaverton, OR-WA Metropolitan Statistical Area (MSA).

The proposed action includes the relocation of a number of ORARNG and USAR units from their current locations to Camp Withycombe. The ORARNG units are located in Clackamas County, OR (Lake Oswego Armory), Washington County, OR (Maison Armory in Tigard), and Multnomah County, OR (Jackson Armory in Portland). The USAR units are located in Multnomah County (Sears Hall Reserve Center and Sharff Hall Reserve Center). All of the facilities from which the units would be relocated from are located within the ROI. As a result, the proposed action would not change the number of persons in the ROI.

### 4.9.1.2 Economic Development

#### 4.9.1.2.1 Employment

Total full- and part-time employment in the seven-county ROI increased between 1980 and 2005 by almost 568,000 jobs (Bureau of Economic Analysis [BEA], 2008). Among the industrial sectors, the greatest numeric and percent increase in employment took place in the services sector where the share of total non-farm employment in the region increased from 23 percent in 1980 to 29 percent in 1990, 32 percent in 2000, and 42 percent in 2005. Substantial increases in employment and share also occurred in the retail trade sector. Although between 1980 and 2000, employment increased in the manufacturing sector, its share of total non-farm employment declined from 17.7 percent in 1980 to 14.5 percent in 1990, 12.6 percent in 2000, and 10.2 percent in 2005. Employment in state and local government increased numerically over the period from over 71,000 jobs in 1980 to over 113,000 in 2005. However, its share of total non-farm employment remained relatively stable at between 8.7 percent and 10.0 percent.

The economy of Clackamas County is not separable from that of surrounding urban areas, nor is it uniform throughout. The northwest urban portion of the county is part of the highly diversified urban economy of the Portland metropolitan area, with similar industries, and many retail and service businesses to serve the large urban population. The economies of the rural parts of the county and the cities lying outside the northwest urban area have traditionally been based on forestry and agriculture. However, residents in these more rural areas are increasingly commuting to jobs in the Portland urban area (Clackamas County, 2008).

The major employers (with more than 5,000 employees) in the Portland metropolitan region are presented in Table 4-2.

TABLE 4-2  
MAJOR EMPLOYERS IN THE PORTLAND METROPOLITAN REGION

Employer	Number of Employees
Intel Corporation	16,740
Providence Health System	14,600
Oregon Health and Science University	11,500
Fred Meyer, Incorporated	8,500
Kaiser Foundation	8,200
Legacy Health System	8,200
Nike, Incorporated	7,600

Source: Portland Development Commission, 2008.

#### 4.9.1.2.2 Regional Income and Earnings.

Personal income in the seven-county ROI in 2005 totaled over \$74 billion. The majority of this income (over 71 percent) was derived from earnings, with an additional 12 percent attributable to transfer payments (such as income maintenance, unemployment insurance, and retirement). The remaining contribution was derived from dividends, interest, and rents. Per capita income stood at \$35,430 for the metropolitan area and ranged from a high of \$39,730 in Clackamas County, OR to a low of \$25,820 in Skamania County, WA. Average earnings per job were \$46,455 for the ROI and varied from a high of almost \$53,700 in Washington County, OR to a low of \$29,500 in Skamania County, WA (Bureau of Economic Analysis [BEA], 2008).

#### 4.9.1.2.3 Unemployment

Over the period 1990 through 2006, unemployment rates for each of the counties comprising the ROI (with the exception of Skamania County, OR) have mirrored that of the state of Oregon and the nation (Bureau of Labor Statistics [BLS], 2008). From a high level in 1992, rates declined through 1994 and then remained relatively constant (at between 4 and 6 percent) through 2000. Unemployment rates rose to between 8 and 10 percent until 2003 and declined thereafter to levels of between 5 and 6 percent by 2006.

#### 4.9.1.3 Population

During the 1980s, each of the counties in the ROI experienced population losses (U.S. Census Bureau, 2006): 21 percent in Washington County, OR, 19 percent in Clark County, WA, 16 percent in Yamhill County, OR, 13 percent in Clackamas County, OR, 5 percent in Columbia County, OR, 4.5 percent in Skamania County, WA, and 4 percent in Multnomah County, OR. The decade of the 1990s saw a significant reversal of this trend with increases of 81 percent in Washington County, OR, 80 percent in Clark County, WA, 54 percent in Yamhill County, OR, 40 percent in Clackamas County, OR, 25 percent in Skamania County, WA, 22 percent in Columbia County, OR, and 17 percent in Multnomah County, OR. Robust growth continued between 2000 and 2006 with the counties in the ROI experiencing the following increases: 19 percent in Clark County,

WA, 15 percent in Washington County, OR, 13 percent in Columbia County, OR, 11 percent in Yamhill County, OR, 10 percent in Clackamas County, OR, 9 percent in Skamania County, WA, and 3 percent in Multnomah County, OR (U.S. Census Bureau, 2008).

The population of the ROI is projected to increase by over 334,000 persons between 2010 and 2020 (a 15 percent increase) and by over 343,000 persons between 2020 and 2030 (a 13 percent increase). The greatest numeric and percent population increase is forecast for Washington County, OR (State of Oregon, Office of Economic Analysis and State of Washington, Office of Financial Management, 2008).

The on-post population of Camp Withycombe includes military personnel assigned to the post and civilian personnel employed at the post.

#### 4.9.1.4 Housing

##### 4.9.1.4.1 Government-Sponsored Housing.

The only government-sponsored housing associated with Camp Withycombe is the Adjutant General's residence (Building 6110) and the caretaker's cottage (Building 6115), which are both located in the southwestern part of the post.

##### 4.9.1.4.2 Private Sector Housing

The total number of housing units in the seven-county ROI that was reported in the 2000 Census was 790,876 (U.S. Census Bureau, 2008). Of this total, 5.7 percent were vacant and of the occupied units, 63 percent were owner-occupied, with the remaining 37 percent renter-occupied.

Of the occupied housing units in the ROI, fewer than 63 percent are single family detached structures and just over 5 percent are mobile homes (U.S. Census Bureau, 2008). The proportion of the housing stock comprised of mobile homes varies across counties from a high of 24.5 percent in Skamania County, WA to a low of 2.1 percent in Multnomah County, OR. The most recent development has occurred in Washington County, OR and Clark County, OR, where the median year in which the housing units were constructed was 1981 and 1980, respectively.

Between 1980 and 2006 the ROI has experienced three housing construction cycles (most noticeable for multiple family units): 1980-1989; 1989-1997; and 1997-2005 (State of the Cities Data System [SOCDS], 2008). Each cycle exhibited a decline in construction activity from a peak followed by an increase to a subsequent peak. For single family housing units, construction activity increased steadily from 1982 when 2,646 units were authorized for construction to 1994 when 11,229 units were authorized for construction. Between 1994 and 2004 construction of single family units remained relatively constant at between 9,724 and 11,325 units annually.

##### 4.9.1.5 Environmental Justice

EO 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."

Based on the 2000 Census, the seven-county ROI has a minority population comprising 18.4 percent of the total population and a low-income population comprising 9.5 percent of the total population. There is considerable variation in these demographics at the county level within the ROI. Minority populations are highest in Multnomah County, OR (23.5 percent) and Washington County, OR (22.3 percent). Low income populations are highest in Skamania County, WA (13.1 percent) and Multnomah County, OR (12.7 percent).

#### 4.9.1.6 Protection of Children

Camp Withycombe follows the guidelines as specified for the protection of children as indicated 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 shall 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. Children are not present at Camp Withycombe.

### 4.9.2 Consequences

#### 4.9.2.1 Proposed Action

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, which contains the model inputs, outputs, and significance measures is provided as Appendix D.

##### 4.9.2.1.2 Economic Development

###### 4.9.2.1.2.1 Construction Phase

In terms of personnel, the proposed action involves the relocation of approximately 324 ORARNG personnel (322 military and 2 civilian) and approximately 429 USAR personnel (420 military and 9 civilian) for an approximate total of 753 personnel, to Camp Withycombe from other existing facilities in the ROI.

Construction of the AFRC Complex under the proposed action is expected to last approximately 2 years (May 2009 to June 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 would be approximately \$67 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 would have \$21.44 million in 2009, \$32.16 million in 2010, and \$13.40 million in 2011.

The forecast employment and income effects associated with the proposed construction activity for each year are presented in Table 4-3. The greatest effect would occur in 2010 when total employment in the ROI would increase by 432 jobs throughout the year. These jobs would be comprised of 88 direct construction jobs and 344 secondary jobs associated with (a) the procurements of good, materials, and services and (b) spending (personal consumption expenditures) by the construction workers. Effects in the prior and subsequent years of construction would be less.

TABLE 4-3  
EMPLOYMENT AND INCOME EFFECTS BY YEAR

	2009	2010	2011
Construction Expenditures:	\$21,440,000	\$32,160,000	\$13,400,000
Employment:			
Total	288	432	180
Direct	58	88	37
Induced	229	344	143
Income:			
Total	\$12,626,000	\$18,938,000	\$7,891,000
Direct	\$2,566,000	\$3,849,000	\$1,604,000
Induced	\$10,060,000	\$15,089,000	\$6,287,000

Source: EIFS and CH2MHILL

This employment effect in 2010 corresponds to a small fraction of one 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 by the proposed action would be available in the regional workforce. As of 2005, the ROI contained almost 80,000 full- and part-time jobs in the construction sector of the economy.

Table 4-4 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 increase in sales volume, income, and employment are relatively minor and fall 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 can be expected from the construction activities required to implement the proposed action.

TABLE 4-4  
EIFS MODEL OUTPUT FOR PROPOSED CONSTRUCTION ACTIVITIES, 2010

Indicator	Projected Change	Percentage	
		Change	Range of RTVs
Sales Volume-Direct	\$25,623,410	--	N/A
Sales Volume-Induced	\$100,443,800	--	N/A
<b>Sales Volume- Total</b>	\$126,067,200	0.11%	-7.42 % to 8.68 %
Income-Direct	\$3,849,397	--	N/A
Income-Induced	\$15,089,640	--	N/A
<b>Total Income<sup>1</sup></b>	\$18,939,030	0.04%	-4.7 % to 8.16 %
Employment-Direct	88	--	N/A
Employment-Induced	344	--	N/A
<b>Total Employment</b>	432	0.04%	-4.38 % to 2.89 %
Local Population	0	0%	N/A
Local Off-base Population	0	0%	-1.07 % to 1.41 %

Notes:

<sup>1</sup>Place of work income

RTV = rational threshold value

N/A = not applicable

#### 4.9.2.1.2.2 Operations Phase

There would be no measureable change in long-term employment because the proposed action involves the relocation of existing personnel within the ROI. The facilities from which the units would be relocated would experience decreases in maintenance and repair expenditures. It is anticipated that maintenance and repair expenditures for the proposed AFRC would not exceed those for the existing facilities and negligible long-term impacts are anticipated.

#### 4.9.2.1.3 Population and Housing

The workforce required during the construction phase of the proposed action would be available within the region and no in-migration of construction workers would occur. Thus, no increase in population is anticipated and potential impacts to housing and other community resources would not occur.

#### 4.9.2.1.4 Environmental Justice and Protection of Children.

The proposed action would be confined to Camp Withycombe. Construction and operation of the proposed AFRC Complex would not result in adverse impacts associated with air quality, noise, groundwater, surface water, or hazardous materials and wastes. Safety measures to protect pedestrians, including children, would be implemented during construction. As a result, minorities, low-income residents, and children living in proximity to Camp Withycombe would not be disproportionately impacted by the proposed action. This analysis is considered valid regardless of the total number or percentage of minorities, low-income residents, or children that live in proximity to the area, or the distance of their residences from the area.

For these reasons, the proposed action would have no effect on environmental justice or protection of children.

#### 4.9.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on socioeconomic resources.

## 4.10 Transportation

### 4.10.1 Affected Environment

The primary high-capacity roads located in the vicinity of Camp Withycombe are I-205 located approximately 0.4 mile west of the post and U.S. Highway 212 located approximately 0.21 mile south of the post (see Figure 1-1). Local roads in the vicinity of the post include S.E. 102nd Avenue, S.E. 98th Avenue, S.E. Clackamas Road, S.E. Industrial Way, and S.E. Mather Road (see Figure 2-1). The main entrance gate of Camp Withycombe is located off of S.E. Clackamas Road. The road system that provides access to the post does not adequately meet demand and often experiences heavy congestion, particularly during weekday work hours.

Approximately 157 acres of the original post property were transferred to ODOT in 1990 for the proposed Sunrise Corridor highway. The Sunrise Corridor highway is proposed to be constructed in two phases, the western portion being the first phase and the eastern portion being the second phase. The western portion of the Sunrise Corridor, referred to as the Sunrise Project, would extend from I-205, through the transferred post property (along the current northern boundary), to Rock Creek Junction, located approximately 2.2 miles east of the post. The eastern portion of the Sunrise Corridor, referred to as the Sunrise Parkway, would extend from Rock Creek Junction to U.S. Highway 26, located approximately 7.7 miles east of the post. Based on the Sunrise Corridor project schedule, construction of the Sunrise Project is scheduled to commence in early 2010 and construction of the Sunrise Parkway is scheduled to commence in early 2012.

A Union Pacific railroad and loading dock are located approximately one block west of Camp Withycombe. There are also a railroad spur and loading ramp in this area that have been leased by the post in the past to transport tracked vehicles and other bulk material. This loading dock is currently not used because it needs repairs and the post's lease is currently expired.

The closest commercial airport to Camp Withycombe is the Portland International Airport, located approximately 13 miles north of the post.

## 4.10.2 Consequences

### 4.10.2.1 Proposed Action

Development of the AFRC Complex under the proposed action would include upgrades/modifications to the post's roadway infrastructure. The primary roadway infrastructure modifications that would be included under the proposed action would be the relocation of the main entrance gate, construction of a commercial entrance gate, and construction of new roads within the post that would service the AFRC Complex and connected areas (see Figure 2-1). The main entrance gate would be relocated from its present location on S.E. Clackamas Avenue to S.E. Industrial Way. The new main entrance gate would serve as the non-commercial entry point for military personnel and civilian employees/contractors. The existing gate on S.E. Clackamas Avenue would be retained and used as a visitor entrance to the area to be developed as the Historic Area. The commercial entrance gate would be constructed on S.E. Mather Road. The commercial gate would serve as the entry point for commercial delivery trucks and military vehicles. The new roads that would be constructed would extend from the new gates to the existing post road system. The road off of the main entrance gate would provide direct non-commercial access to the AFRC POV parking area, building, and compound area. The road off of the commercial entrance gate would provide direct commercial/military vehicle access to the AFRC building and compound area. All the roadway infrastructure upgrades/modifications that would be implemented under the proposed action are consistent with the transportation improvements proposed for the post in the 2007 Draft Camp Withycombe Development Plan.

The relocation of ORARNG and USAR units from other facilities to the new AFRC at Camp Withycombe under the proposed action would increase traffic on and in the vicinity of the post. There would be a corresponding decrease in traffic in the vicinity of the facilities from which the units would be relocated. Because the facilities from which the unit personnel are being relocated and Camp Withycombe are located within the same metropolitan area, there would be no appreciable change in commute time for the personnel who would be relocated.

The roadway infrastructure modifications proposed for Camp Withycombe would accommodate the increase in traffic that would result on the post from the unit relocations. The new gates and roads would separate commercial and military traffic from general POV traffic, thereby, minimizing congestion. Traffic would increase on the roads that provide access to the western side of the post where the new gates are proposed. However, the new gates would decrease the amount of post-related traffic that occurs in the residential community located adjacent to the existing main gate.

Clackamas County's Capital Improvement Program has numerous transportation improvement projects planned for the 2006/07 through 2010/11 plan period. Some of these projects would create new routes and increase the capacity of existing routes (road widening and turn lane additions) in the road network that connects to Camp Withycombe, thereby, improving traffic conditions in the vicinity of the post. The planned Sunrise Corridor highway would also improve traffic conditions in the vicinity of Camp Withycombe by reducing congestion on Highway 212 between I-205 and S.E. 102nd Avenue near the post.

The transportation improvements that would be realized through these projects are expected to offset the increase in traffic that would result from the proposed action.

Construction of the proposed AFRC Complex would increase traffic on and in the vicinity of Camp Withycombe during the construction period; however, the projected increase is not expected to have a major burden on the road system.

For these reasons, the proposed action would have a minor positive impact on transportation.

#### 4.10.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on transportation.

## 4.11 Utilities

### 4.11.1 Affected Environment

Most of the utility systems of Camp Withycombe were constructed in the 1940s and 1950s, and, therefore, are at the end of their service life span. All of the utility systems are considered inadequate and in need of upgrades. Major utility system upgrades are proposed in the 2007 Draft Camp Withycombe Development Plan to correct current deficiencies and to support planned post development.

#### 4.11.1.1 Potable Water

The potable water distribution system of Camp Withycombe consists of a network of underground pipelines that vary in age and construction. The post receives water from Clackamas County via a 10-inch transmission main located under S.E. Clackamas Road. Hydrostatic tests conducted in 2001 indicated adequate pressure in this main.

#### 4.11.1.2 Storm Water

The storm water drainage system of Camp Withycombe consists of four drain mains, a network of connected catch basins and storm drains, and one retention pond and connected ditch. The majority of the post is located within the Deer Creek Watershed, which drains westward to the Willamette River. A small portion of the southwestern

part of the post lies within the Cow Creek Watershed, which flows southward to the Clackamas River. The retention pond is located just north of the OSMS facility (see Figure 4-3). This pond receives storm water runoff from the OSMS facility and other on-post developed areas via catch basins and storm drains. A ditch that is hydrologically connected to the western side of the pond runs west-southwest then due west until it transitions into an herbaceous wetland located just east of S.E. Industrial Way in the northwestern part of the post. The ditch and herbaceous wetland are hydrologically connected to a forested wetland located on the western side of S.E. Industrial Way by a culvert underneath the road. Water from the retention pond overflows into the ditch during heavy storm events. The ditch also receives storm water runoff via overland flow from surrounding areas. Storm water that is conveyed west of S.E. Industrial Way enters the Clackamas County storm drain system and ultimately discharges to Dean Creek. A conceptual storm water management plan for Camp Withycombe was completed in 2006 (GeoSyntec Consultants, 2006). Additional information on the storm water drainage system of the post is provided in this plan.

#### 4.11.1.3 Wastewater

The sanitary sewer system of Camp Withycombe consists of a network of underground concrete pipelines that were constructed in the early 1970s. The system was constructed at a minimum slope because of the flat topography of the post. Due to the lack of slope, some portions of the system collect solids, which create anaerobic or septic conditions. In 1991, the system received major repairs including chemical grouting, manhole and lateral repair, and TV inspection. The post system discharges into an existing sanitary manhole alongside a 24-inch public sanitary trunkline located under Clackamas Road.

Camp Withycombe operates under an industrial wastewater discharge permit issued by the Clackamas County Water and Environmental Service Department (Permit No. 01K-018D). Industrial wastewater from the post is discharged into the treatment works owned by Clackamas County Service District #1.

#### 4.11.1.4 Electricity, Natural Gas, Communications

The existing electrical and communication distribution systems of Camp Withycombe are suspended from wooden poles and were constructed during the late 1940s. The existing natural gas system was constructed mostly in 1987; additional pipelines were added in 1996. Of all the post utility systems, the natural gas system is considered to be in the best condition.

### 4.11.2 Consequences

#### 4.11.2.1 Proposed Action

Development of the AFRC Complex under the proposed action would include upgrades/modifications to the post utility infrastructure. Utility systems located within the AFRC Complex area as well those that connect to or would otherwise service the Complex would be upgraded or replaced to accommodate operation of the Complex and to meet the utility demand increase that would result from the unit relocations. The utility systems that would be upgraded or replaced under the proposed action would

include electrical, storm drainage, sanitary sewer, potable water, lighting, and communication systems. All the utility infrastructure upgrades/modifications that would be implemented under the proposed action are consistent with the utility system improvements proposed for the post in the 2007 Draft Camp Withycombe Development Plan. In addition to meeting the utility demand increase that would result from the operation of the AFRC Complex and unit relocations, the proposed utility infrastructure upgrades/modifications would have a positive impact on the overall operational functionality of the entire post.

Construction of the AFRC Complex would not directly impact the retention pond located just north of the OSMS facility; however, it would impact the ditch that is hydrologically connected to the western side of the pond. This ditch is located within the proposed construction footprint of the AFRC Complex and, therefore, would be impacted under the proposed action. A new storm water management system, which would include a different conveyance system for the existing retention pond as well as an attenuation/conveyance system for storm water runoff from the AFRC Complex is currently under conceptual development. OMD is currently coordinating with Clackamas County on storm water management for the proposed action. OMD would obtain all applicable County storm water permits for the proposed action during the permitting phase of the project.

For these reasons, the proposed action would have a moderate positive impact on utilities.

#### 4.11.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on utilities.

## 4.12 Hazardous and Toxic Substances

### 4.12.1 Affected Environment

The Oregon DEQ administers the RCRA hazardous waste program in Oregon. Camp Withycombe is designated as a Large Quantity Generator of hazardous waste under the State's regulations. The post currently generates over 2,200 pounds of hazardous waste debris per month (Advanced Remediation Technologies, 2007). Small amounts of hazardous waste at Camp Withycombe are accumulated in designated satellite accumulation areas (SAAs) that have been set up at or near sites where hazardous waste is regularly generated. Once the accumulation limit has been reached at the SAA, the waste is transported to a designated hazardous waste holding facility on the post, where it is held temporarily (90 days or less) until removed by a licensed contractor and disposed of offsite.

Potential pollutant sources at Camp Withycombe primarily include materials held within the maintenance buildings, storage buildings, and warehouses; ASTs; the JP-8

fueling pad; oil water separators; petroleum, oil, and lubricants (POL) storage rooms; the battery storage room; wash racks; and vehicle parking yards. ORARNG Regulation 420-47 provides guidance on the proper management of hazardous materials and waste on ORARNG facilities. The 2007 Camp Withycombe Integrated Contingency Plan (ICP) provides procedures for the proper handling of POL and hazardous materials at Camp Withycombe, as well as guidance on spill response and cleanup (Advanced Remediation Technologies, 2007). Camp Withycombe manages lead-based paint (LBP) and asbestos-containing materials (ACMs) on the post in accordance with all applicable state and federal regulations.

At present, there are no regulated underground storage tanks (USTs) on Camp Withycombe. Nine previous USTs on post were removed between 1998 and 2003. There are five active above ground storage tanks (ASTs) scattered throughout the post: one 12,000-gallon AST that contains JP-8 fuel, three 350-gallon ASTs that contain used oil, and one 55-gallon AST that contains motor gasoline. Several previous ASTs that contained heating oil were removed between 1988 and 2003.

Camp Withycombe operates under an industrial wastewater discharge permit issued by the Clackamas County Water and Environmental Service Department (Permit No. 01K-018D). The State of Oregon does not require that Camp Withycombe operate under a storm water permit or implement a Storm Water Pollution Prevention Plan based on the post's Standard Industrial Code designation. The Camp Withycombe ICP provides guidance on reducing pollutants in storm water discharges associated with industrial activity at the post.

There have been no recorded spills at Camp Withycombe in the past 2 years. All previous spills have been remediated and have been issued "No Further Action" by the Oregon DEQ. There are no active Installation Restoration Program or POL-contaminated sites on the post. There are no known sources of polychlorinated biphenyl (PCB) or polychlorinated phenol contamination at Camp Withycombe.

There are no known pollutant sources within the parts of the post where the POV parking area and AFRC building would be constructed under the proposed action. Potential pollutant sources do exist within developed portion of the site where the proposed compound area of the AFRC Complex would be constructed. This area is currently part of the OSMS. Operations within this area are conducted in accordance with all applicable environmental compliance regulations and post environmental management plans. Because of their old age, some or all of the buildings that would be demolished under the proposed action may contain LBP and/or ACM.

## 4.12.2 Consequences

### 4.12.2.1 Proposed Action

Construction of the AFRC Complex under the proposed action would be conducted in accordance with all applicable environmental compliance regulations and with all applicable environmental management plans implemented at Camp Withycombe. Operation of the vehicle maintenance shop within the proposed compound area of the AFRC Complex would involve the use of paints, solvents, and POL. Under the proposed

action, the compound area would include a 400-sf flammable materials storage shed and a 300-sf controlled waste storage shed. All hazardous waste generated by vehicle maintenance activities in the compound area would be handled, held, and disposed of in accordance with all applicable environmental regulations and with all hazardous materials management plans implemented at the post. All applicable management plans would be updated as necessary to include the vehicle maintenance activities that would be conducted within the compound area.

Camp Withycombe would conduct comprehensive LBP, ACM, and PCB surveys of the buildings proposed to be demolished under the proposed action. Necessary LBP, ACM, or PCB abatement would be conducted in accordance with all applicable state and federal regulations. All waste manifests would be submitted to the government upon completion of the work.

For these reasons, any impacts associated with hazardous/toxic substances that the proposed action may have would be minor.

#### 4.12.2.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. Therefore, the no action alternative would have no effect on or from hazardous/toxic substances.

## 4.13 Cumulative Effects Summary

A "cumulative impact" is defined in 40 CFR 1508.7 as "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 non-Federal) or person undertakes such other actions." Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

### 4.13.1 Proposed Action

No major development or other significant actions have occurred on or in the vicinity of Camp Withycombe over the last 5 years. Foreseeable actions in the area include the functional area reorganization proposed for the post in the 2007 Camp Withycombe Development Plan, local transportation improvement projects proposed by Clackamas County, and the Sunrise Corridor highway project. The actions proposed by the post development plan primarily involve the spatial reorganization of post functions as well as roadway and utility improvements. These actions would primarily involve facility demolition and relocation, and upgrades to existing infrastructure. After the proposed AFRC Complex is constructed, there would be very little space on the post available for future development. The areas surrounding the post are also highly developed and, therefore, cannot accommodate much additional development.

The foreseeable actions in the area are expected to have relatively minor impacts on the environment. Based on the types of actions that are foreseeable, minor impacts to air quality, noise, water resources, and biological resources, such as those resulting from typical construction activities, are expected. The coupling of the proposed action with foreseeable actions is not expected to result in adverse cumulative impacts to these resources. The combined effect of the proposed action and the actions proposed by the post development plan would have positive cumulative impacts on post land use, transportation, and utilities, regional economic development, and the overall operational functionality of the post. The coupling of the proposed post roadway infrastructure upgrades/modifications with the local roadway improvements proposed by Clackamas County and the Sunrise Corridor highway project would have positive cumulative impacts on transportation in the area. The proposed action would have minor positive cumulative impacts on the local economy resulting from short-term, temporary increases in employment and expenditures during construction. Because the proposed action would improve the readiness, recruiting/retention, and training of the units being relocated and those currently assigned to Camp Withycombe, it would have a positive cumulative impact on the missions of ARNG and USAR.

#### 4.13.2 No Action Alternative

Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the post. The no action alternative would hinder the functional area reorganization and infrastructure improvements needed for the post; prevent ARNG from achieving significant operational cost savings; and impact the readiness, recruiting/retention, and training of the units being relocated and those currently assigned to Camp Withycombe. As such, the no action alternative would have adverse cumulative impacts on the missions of ARNG and USAR.

### 4.14 Mitigation Measures

Based on the findings of this EA, the maximum amount of wetland impact that could result from the proposed action would be approximately 1.27 acres. The extent to which the proposed action would impact wetlands would be determined during the design and permitting phases of the project. Appropriate mitigation would be provided by OMD for the wetland impacts incurred by the project. The mitigation requirements of the project would be determined during permitting and would be outlined in the removal-fill permit that would be obtained. Preliminary mitigation options being considered by OMD for the proposed action include purchasing credits from a wetland mitigation bank and restoration/enhancement of the forested wetland on the western side of S.E. Industrial Way.

The proposed action would involve the demolition of three NRHP-eligible buildings (Buildings 6305, 6308, and 6310) and relocation of one NRHP-eligible building (Building 6525). The adverse effects on these cultural resources would be mitigated when the provisions of the MOA with SHPO are completed. Under the terms of the MOA, ORARNG would create a Historic Area at Camp Withycombe that would be readily accessible to the public. ORARNG would relocate the Quonset hut and horse barn to the

new Historic Area. ORARNG would also relocate the Oregon Military Museum and the contents of Building 6230 to the existing NRHP-eligible Clackamas armory (Building 6101) which is located in the area designated to be the Historic Area. The Clackamas armory would house the Oregon Military Museum after the new AFRC is constructed. Finally, ORARNG would conduct 35-millimeter black and white or digital photo-documentation of all the NRHP-eligible buildings and structures before they are moved, demolished or altered.

# 5 Conclusions

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## 5.1 Consequences of the Proposed Action

The impacts that the proposed action would have on the natural environment would be minor. The proposed action would have net positive impacts on several of the resources evaluated. The proposed action is an integral part of the overall development plan for Camp Withycombe and its implementation would have a positive impact on land use planning and the operational functionality of the post. The loss of recreational use of the open field where the proposed POV parking lot and AFRC building would be constructed would have a minor impact on the current functional use of this part of the post. However, recreational use of the site is infrequent and its overall functional value would be far outweighed by the functional value provided by the proposed AFRC Complex.

The expected annual emissions of CO under the proposed action would be below the conformity threshold value. Fugitive dust and construction vehicle exhaust emissions from construction and demolition activities would result in short-term, minor impacts to air quality. Fugitive dust would be controlled at the site using BMPs, such as periodic watering of cleared areas and stockpiled materials, and mulching or vegetative cover for the cleared areas.

Construction and demolition activities would temporarily increase ambient noise levels; however, the increase in noise levels would be intermittent and limited to normal working hours and the overall construction period. The noise generated by operation of the AFRC Complex would be intermittent, limited to normal working hours, and at levels that are not expected to disturb nearby residences. The proposed unit relocations would increase traffic-related noise on and in the vicinity of the post; however, the proposed new gates would decrease the amount of traffic-related noise in the residential community located adjacent to the existing main gate.

Construction and demolition activities would have a negligible impact on topography and a minor impact on soils. Sediment and erosion controls would be implemented during construction and demolition activities to prevent any indirect impacts to surrounding soils. Construction of the AFRC Complex would impact mostly mowed field and to a lesser extent, shrub, herbaceous wetland, and potentially a small portion of the park-like community located in the southern part of the post. The maximum amount of wetland impact that would result under the proposed action would be approximately 1.27 acres. The wetlands as well as the other vegetation communities that would be impacted are of low quality as a result of regular mowing and past land use practices. Appropriate mitigation for the wetland impacts would be provided and sediment and erosion controls would be implemented during construction to prevent any indirect impacts to wetlands and vegetation that would not be directly impacted. Wildlife on and in the vicinity of Camp Withycombe may be temporarily disturbed by construction and

demolition noise during the construction period; however the overall impact is expected to be minor. The noise that would be generated during operation of the AFRC Complex has the potential to disturb wildlife within the vicinity of the Complex; however, the overall impact to wildlife is expected to be minor because the noise would be intermittent and at relatively low levels.

The proposed action would have significant adverse effects on cultural resources with the demolition of three NRHP-eligible buildings (Buildings 6305, 6308, and 6310) and relocation of one NRHP-eligible building (Building 6525). However, the adverse effects on these cultural resources would be mitigated when the provisions of the MOA with SHPO are completed. Under the terms of the MOA, ORARNG would create a Historic Area at Camp Withycombe that would be readily accessible to the public. ORARNG would relocate the Quonset hut and horse barn to the new Historic Area. ORARNG would also relocate the Oregon Military Museum and the contents of Building 6230 to the existing NRHP-eligible Clackamas armory (Building 6101) which is located in the area designated to be the Historic Area. The Clackamas armory would house the Oregon Military Museum after the new AFRC is constructed. Finally, ORARNG would conduct 35-millimeter black and white or digital photo-documentation of all the NRHP-eligible buildings and structures before they are moved, demolished or altered.

The proposed action would have minor positive impacts on the local economy resulting from short-term, temporary increases in employment and expenditures during construction. The unit relocations would increase traffic on and in the vicinity of Camp Withycombe. The proposed roadway infrastructure upgrades/modifications would accommodate the increase in traffic that would result on the post. The new gates and roads would separate commercial and military traffic from general POV traffic, thereby, minimizing congestion. Traffic would increase on the roads that provide access to the western side of the post where the new gates are proposed. However, the new gates would decrease the amount of post-related traffic that occurs in the residential community located adjacent to the existing main gate. Construction of the AFRC Complex would increase traffic on and in the vicinity of Camp Withycombe during the construction period; however, the projected increase is not expected to have a major burden on the road system.

Operation of the AFRC Complex and the unit relocations would increase utility demand at Camp Withycombe. The proposed utility infrastructure upgrades/modifications would meet the utility demand increase and would have a positive impact on the overall operational functionality of the entire post. Construction of the AFRC Complex would impact a ditch that is part of the storm water drainage system of the post. A new storm water management system that would restore the conveyance in the affected area as well as provide attenuation/conveyance for storm water runoff from the AFRC Complex would be constructed under the proposed action.

Hazardous substances would be held, handled, and disposed of, under the proposed action in accordance with all applicable environmental regulations and with all hazardous materials management plans implemented at the post. Camp Withycombe would conduct comprehensive LBP, ACM, and PCB surveys of the buildings proposed to be demolished. Necessary LBP, ACM, or PCB abatement would be conducted in accordance with all applicable state and federal regulations.

## 5.2 Consequences of the No Action Alternative

The no action alternative would have no effect on any of the resources evaluated. However, the no action alternative would hinder the functional area reorganization and infrastructure improvements needed for the post; prevent ARNG from achieving significant operational cost savings; and impact the readiness, recruiting/retention, and training of the units being relocated and those currently assigned to Camp Withycombe. As such, the no action alternative is not a reasonable alternative for ARNG.

## 5.3 Impact Summary

Table 5.1 provides a summary of the impacts that the proposed action and no action alternative would have on the resources evaluated.

Resource	Proposed Action	No Action Alternative
Land use	MAJOR POSITIVE IMPACT	NO EFFECT
Air Quality	MINOR IMPACT	NO EFFECT
Noise	MINOR IMPACT	NO EFFECT
Geology	NO EFFECT	NO EFFECT
Topography	NEGLIGIBLE IMPACT	NO EFFECT
Soils	MINOR IMPACT	NO EFFECT
Surface Water	NO EFFECT	NO EFFECT
Ground Water	NEGLIGIBLE IMPACT	NO EFFECT
Floodplains	NO EFFECT	NO EFFECT
Wetlands	MINOR IMPACT	NO EFFECT
Vegetation	MINOR IMPACT	NO EFFECT
Wildlife	MINOR IMPACT	NO EFFECT
Sensitive Species	NO EFFECT	NO EFFECT

TABLE 5-1  
IMPACT SUMMARY

<b>Resource</b>	<b>Proposed Action</b>	<b>No Action Alternative</b>
Cultural Resources	SIGNIFICANT ADVERSE EFFECT (MITIGATED)	NO EFFECT
Economic Development	MINOR POSITIVE IMPACT	NO EFFECT
Population	NO EFFECT	NO EFFECT
Housing	NO EFFECT	NO EFFECT
Environmental Justice	NO EFFECT	NO EFFECT
Protection of Children	NO EFFECT	NO EFFECT
Transportation	MINOR POSITIVE IMPACT	NO EFFECT
Utilities	MODERATE POSITIVE IMPACT	NO EFFECT
Hazardous and Toxic Substances	MINOR IMPACT	NO EFFECT

## 5.4 Conclusions

Based on the findings of this EA, the proposed action would not result in significant adverse impacts to land use, air quality, noise, geology, topography, soils, water resources, biological resources, socioeconomics, transportation, utilities, or hazardous/toxic substances. The proposed action would have significant adverse effects on cultural resources; however, the adverse effects on cultural resources would be mitigated when the provisions in the MOA with SHPO are completed. Therefore, an Environmental Impact Statement (EIS) will not be prepared and a FNSI is warranted for the proposed action.

# 6 List of Preparers

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<b>Name</b>	<b>Organization</b>	<b>Title</b>	<b>Primary Responsibility</b>
Tunch Orsoy	CH2M HILL	Environmental Scientist	Project Manager
Kris Mitchell	OMD	NEPA/Cultural Resources Manager	Cultural Resources
Rich Reaves	CH2M HILL	Ecologist	Senior Review
Christopher Clayton	CH2M HILL	Planner	Socioeconomics
Darren Bishop	CH2M HILL	Ecologist	Biological Resources
Ronald Vaughn	CH2M HILL	Engineer	Air Quality
Marian Stuart	CH2M HILL	Graphics Specialist	Document Graphics
Robin Nagy	CH2M HILL	Word Processor	Document Production

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# 7 References

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## 8 Persons Consulted

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Jim Arnold/OMD

Jonathan Bowman/USACE

Gerald Elliott/OMD

Dan Gormley/Otak

Tom Hamann/Otak

Joanne Manson/OMD

Kris Mitchell/OMD

Win Seyle/USACE

Chuck Taylor/OMD

# 9 Acronyms

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AFRC	Armed Forces Reserve Center
AIRFA	American Indian Religious Freedom Act
ARNG	Army National Guard
ARPA	Archaeological Resources Protection Act
AST	aboveground storage tank
BCC	Bird Species of Conservation Concern
BEA	Bureau of Economic Analysis
bgs	below ground surface
BLS	Bureau of Labor Statistics
BMP	Best Management Practice
BRAC	Base Realignment and Closure
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel level
DEQ	Department of Environmental Quality
DoD	U.S. Department of Defense
EA	Environmental Assessment
EIFS	Economic Impact Forecast System
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
EO	Executive Order
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FNSI	Finding of No Significant Impact
GOV	government-owned vehicle
ICRMP	Integrated Cultural Resources Management Plan

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MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
MSA	Metropolitan Statistical Area
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO	nitrogen oxide
NRHP	National Register of Historic Places
ODOT	Oregon Department of Transportation
OMD	Oregon Military Department
ORARNG	Oregon Army National Guard
OSMS	Oregon Sustainment Maintenance Site
PCB	polychlorinated biphenyl
POL	petroleum, oil, and lubricants
POV	privately-owned vehicle
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
RTV	rational threshold value
SAA	satellite accumulation area
SHPO	State Historic Preservation Office
sf	square feet
SOP	Standard Operating Procedure
USACE	U.S. Army Corps of Engineers
USAR	U.S. Army Reserve
USFWS	U.S. Fish and Wildlife Service
USDA	United States Department of Agriculture
UST	underground storage tank
VOC	volatile organic compound

# Appendix A

## Agency Scoping and Camp Withycombe AFRC MOA

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**OREGON MILITARY DEPARTMENT**  
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD  
INSTALLATIONS DIVISION  
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SALEM, OREGON 97309-5047

July 11, 2008

Installations

Mr. Don Kemp  
Clackamas County, Water Environmental Services  
9101 SE Sunnybrook Blvd., Suite 441  
Clackamas, OR 97015

Dear Mr. Kemp:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. Your review is requested in accordance with Executive Order 12372, Intergovernmental Review of Federal Programs.

The EA addresses the proposed action and no action alternative. The proposed action is to implement the BRAC Commission's recommendations pertaining to Camp Withycombe. The proposed action would involve 1) construction and operation of an Armed Forces Reserve Center (AFRC) Complex at Camp Withycombe, 2) demolition of 14 buildings, relocation of 2 buildings, and establishment of a Historic Area south of the AFRC Complex, 3) upgrades/modifications to the camp roadway and utility infrastructure in and around the proposed AFRC Complex site, and 4) relocation of Oregon Army National Guard and U.S. Army Reserve units from existing facilities in the Portland metropolitan area to Camp Withycombe. Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the camp. Because the Army National Guard (ARNG) is required to comply with the BRAC Commission's recommendations pertaining to Camp Withycombe, the no action alternative is not a reasonable alternative for ARNG. However, it is evaluated in detail in the EA to meet the requirements of NEPA and to serve as a benchmark for the evaluation of potential effects of the proposed federal action.

Comments should be submitted within 30 days after receipt of this letter to Mr. Kris Mitchell, Oregon Military Department, 1776 Militia Way SE, P.O. Box 14350 (AGI-ENV), Salem, Oregon 97309-5047; email: kris.c.mitchell@us.army.mil; telephone: (503) 584-3164.

Sincerely,

Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



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July 11, 2008

Installations

Mr. Kemper McMaster  
State Supervisor  
U.S. Fish and Wildlife Service  
Oregon Fish & Wildlife Office  
2600 S.E. 98th Ave, Ste 100  
Portland, OR 97266

Dear Mr. McMaster:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. Your review is requested in accordance with Executive Order 12372, Intergovernmental Review of Federal Programs.

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Sincerely,

  
Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



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July 11, 2008

Installations

Mr. James Holm  
U.S. Army Corps of Engineers  
Portland District, Regulatory Branch  
333 SW First Ave.  
Portland, OR 97204-3495

Dear Mr. Holm:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. Your review is requested in accordance with Executive Order 12372, Intergovernmental Review of Federal Programs.

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Sincerely,

  
Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



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July 11, 2008

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Mr. Roger Roper  
State Historic Preservation Office  
725 Summer Street NE, Suite C  
Salem, OR 97301-0793

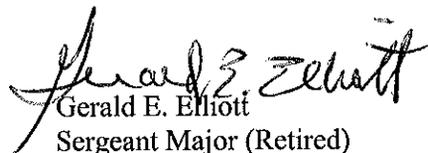
Dear Mr. Roper:

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The EA addresses the proposed action and no action alternative. The proposed action is to implement the BRAC Commission's recommendations pertaining to Camp Withycombe. The proposed action would involve 1) construction and operation of an Armed Forces Reserve Center (AFRC) Complex at Camp Withycombe, 2) demolition of 14 buildings, relocation of 2 buildings, and establishment of a Historic Area south of the AFRC Complex, 3) upgrades/modifications to the camp roadway and utility infrastructure in and around the proposed AFRC Complex site, and 4) relocation of Oregon Army National Guard and U.S. Army Reserve units from existing facilities in the Portland metropolitan area to Camp Withycombe. Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the camp. Because the Army National Guard (ARNG) is required to comply with the BRAC Commission's recommendations pertaining to Camp Withycombe, the no action alternative is not a reasonable alternative for ARNG. However, it is evaluated in detail in the EA to meet the requirements of NEPA and to serve as a benchmark for the evaluation of potential effects of the proposed federal action.

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Sincerely,



Gerald E. Elliott

Sergeant Major (Retired)  
Environmental Program Manager



**OREGON MILITARY DEPARTMENT**  
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD  
INSTALLATIONS DIVISION  
1776 MILITIA WAY  
P.O. BOX 14350  
SALEM, OREGON 97309-5047

July 11, 2008

Installations

Ms. Sarah Jalving  
State Historic Preservation Office  
725 Summer Street NE, Suite C  
Salem, OR 97301-0793

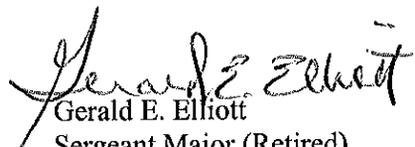
Dear Ms. Jalving:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. Your review is requested in accordance with Executive Order 12372, Intergovernmental Review of Federal Programs.

The EA addresses the proposed action and no action alternative. The proposed action is to implement the BRAC Commission's recommendations pertaining to Camp Withycombe. The proposed action would involve 1) construction and operation of an Armed Forces Reserve Center (AFRC) Complex at Camp Withycombe, 2) demolition of 14 buildings, relocation of 2 buildings, and establishment of a Historic Area south of the AFRC Complex, 3) upgrades/modifications to the camp roadway and utility infrastructure in and around the proposed AFRC Complex site, and 4) relocation of Oregon Army National Guard and U.S. Army Reserve units from existing facilities in the Portland metropolitan area to Camp Withycombe. Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the camp. Because the Army National Guard (ARNG) is required to comply with the BRAC Commission's recommendations pertaining to Camp Withycombe, the no action alternative is not a reasonable alternative for ARNG. However, it is evaluated in detail in the EA to meet the requirements of NEPA and to serve as a benchmark for the evaluation of potential effects of the proposed federal action.

Comments should be submitted within 30 days after receipt of this letter to Mr. Kris Mitchell, Oregon Military Department, 1776 Militia Way SE, P.O. Box 14350 (AGI-ENV), Salem, Oregon 97309-5047; email: kris.c.mitchell@us.army.mil; telephone: (503) 584-3164.

Sincerely,

  
Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



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JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD  
INSTALLATIONS DIVISION  
1776 MILITIA WAY  
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SALEM, OREGON 97309-5047

July 11, 2008

Installations

Mr. Dennis Griffin  
State Historic Preservation Office  
725 Summer Street NE, Suite C  
Salem, OR 97301-0793

Dear Mr. Griffin:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. Your review is requested in accordance with Executive Order 12372, Intergovernmental Review of Federal Programs.

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Sincerely,

Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



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INSTALLATIONS DIVISION  
1776 MILITIA WAY  
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SALEM, OREGON 97309-5047

July 11, 2008

Installations

Mr. Mike McCabe  
Resource Coordinator  
Oregon Dept. of State Lands  
775 Summer St. NE, Suite 100  
Salem, OR 97301-1278

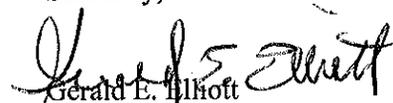
Dear Mr. McCabe:

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Sincerely,

  
Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



**OREGON MILITARY DEPARTMENT**  
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD  
INSTALLATIONS DIVISION  
1776 MILITIA WAY  
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SALEM, OREGON 97309-5047

July 11, 2008

Installations

Ms. Mischa Connine  
Habitat Biologist  
North Willamette Watershed Office  
Oregon Dept. of Fish and Wildlife  
18330 NW Sauvie Island Rd.  
Portland, OR 97231

Dear Ms. Connine:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. Your review is requested in accordance with Executive Order 12372, Intergovernmental Review of Federal Programs.

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Sincerely,

  
Gerald E. Blfott  
Sergeant Major (Retired)  
Environmental Program Manager



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INSTALLATIONS DIVISION  
1776 MILITIA WAY  
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SALEM, OREGON 97309-5047

July 11, 2008

Installations

Ms. Corey Saxon  
401 Water Quality Certification Specialist  
Northwest Region  
Oregon Dept. of Environmental Quality  
2020 SW 4th Ave, Suite 400  
Portland, OR 97201-4987

Dear Ms. Saxon:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. Your review is requested in accordance with Executive Order 12372, Intergovernmental Review of Federal Programs.

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Sincerely,

Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



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INSTALLATIONS DIVISION  
1776 MILITIA WAY  
P.O. BOX 14350  
SALEM, OREGON 97309-5047

July 11, 2008

Installations

NEPA Point of Contact  
Office of the Governor  
State Capital Building  
900 Court Street NE  
Salem, OR 97301

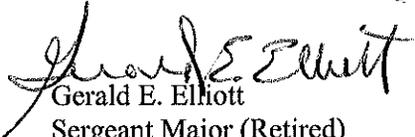
Dear NEPA Point of Contact:

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Comments should be submitted within 30 days after receipt of this letter to Mr. Kris Mitchell, Oregon Military Department, 1776 Militia Way SE, P.O. Box 14350 (AGI-ENV), Salem, Oregon 97309-5047; email: kris.c.mitchell@us.army.mil; telephone: (503) 584-3164.

Sincerely,

  
Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



**OREGON MILITARY DEPARTMENT**  
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD  
INSTALLATIONS DIVISION  
1776 MILITIA WAY  
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SALEM, OREGON 97309-5047

July 11, 2008

Installations

Ms. Linda Preisz  
Department of Transportation and Development  
Sunnybrook Service Center  
9101 SE Sunnybrook Blvd  
Clackamas, OR 97015

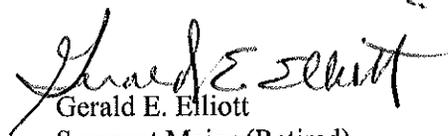
Dear Ms. Preisz:

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Sincerely,

  
Gerald E. Elliott  
Sergeant Major (Retired)  
Environmental Program Manager



**OREGON MILITARY DEPARTMENT**  
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD  
OFFICE OF THE ADJUTANT GENERAL  
1776 MILITIA WAY  
P.O. BOX 14350  
SALEM, OREGON 97309-5047

July 11, 2008

Cheryle Kennedy  
Tribal Chair  
Confederated Tribes of the Grand Ronde  
9615 Grand Ronde Road  
Grand Ronde, OR 97347

Dear Chairman Kennedy:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act (NHPA) of 1966, as amended. The contents of these documents were the subject of an April 9, 2008 meeting with your staff and copies are being provided to Mr. Eirik Thorsgard and Mr. Michael Karnosh for their review. The Oregon Military Department (OMD) is requesting input from the Confederated Tribes of the Grand Ronde.

The BRAC actions proposed for Camp Withycombe and described in the attached documents would involve 1) construction and operation of an Armed Forces Reserve Center (AFRC) Complex at Camp Withycombe, 2) demolition of 14 buildings, relocation of 2 buildings, and establishment of a Historic Area south of the AFRC Complex, 3) upgrades/modifications to the camp roadway and utility infrastructure in and around the proposed AFRC Complex site, and 4) relocation of Oregon Army National Guard and U.S. Army Reserve units from existing facilities in the Portland metropolitan area to Camp Withycombe. Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the camp. Because the Army National Guard (ARNG) is required to comply with the BRAC Commission's recommendations pertaining to Camp Withycombe, the no action alternative is not a reasonable alternative for ARNG. However, it is evaluated in detail in the EA to meet the requirements of NEPA and to serve as a benchmark for the evaluation of potential effects of the proposed federal action.

Comments should be submitted within 30 days after receipt of this letter to Mr. Kris Mitchell, Oregon Military Department, 1776 Militia Way SE, P.O. Box 14350 (AGI-ENV), Salem, Oregon 97309-5047; email: kris.c.mitchell@us.army.mil; telephone: (503) 584-3164. Thank you for your interest and assistance in this important effort and in the continued cooperative relationship for identifying and resolving potential issues.

Sincerely,

RAYMOND F. REES  
Major General  
The Adjutant General



**OREGON MILITARY DEPARTMENT**  
JOINT FORCE HEADQUARTERS, OREGON NATIONAL GUARD  
OFFICE OF THE ADJUTANT GENERAL  
1776 MILITIA WAY  
P.O. BOX 14350  
SALEM, OREGON 97309-5047

July 11, 2008

Mr. Robert Brunoe  
Tribal Historic Preservation Officer  
Confederated Tribes of the Warm Springs  
PO Box 1299  
Warm Springs, OR 97761

Dear Mr. Brunoe:

A draft Finding of No Significant Impact (FNSI) with supporting draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Implementation of Base Realignment and Closure (BRAC) Actions at Camp Withycombe, Oregon are attached for your review and comment. The FNSI and EA were prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act (NHPA) of 1966, as amended. The contents of these documents were the subject of an April 2, 2008 meeting with your staff and copies are being provided to Ms. Sally Bird for her review. The Oregon Military Department (OMD) is requesting input from the Confederated Tribes of the Warm Springs.

The BRAC actions proposed for Camp Withycombe and described in the attached documents would involve 1) construction and operation of an Armed Forces Reserve Center (AFRC) Complex at Camp Withycombe, 2) demolition of 14 buildings, relocation of 2 buildings, and establishment of a Historic Area south of the AFRC Complex, 3) upgrades/modifications to the camp roadway and utility infrastructure in and around the proposed AFRC Complex site, and 4) relocation of Oregon Army National Guard and U.S. Army Reserve units from existing facilities in the Portland metropolitan area to Camp Withycombe. Under the no action alternative, Camp Withycombe would not take any action to comply with the BRAC Commission's recommendations pertaining to the camp. Because the Army National Guard (ARNG) is required to comply with the BRAC Commission's recommendations pertaining to Camp Withycombe, the no action alternative is not a reasonable alternative for ARNG. However, it is evaluated in detail in the EA to meet the requirements of NEPA and to serve as a benchmark for the evaluation of potential effects of the proposed federal action.

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Sincerely,

RAYMOND F. REES  
Major General  
The Adjutant General

Camp Withycombe EAFONSI-USFWS

From: Richard\_Szlemp@fws.gov  
Sent: Thursday, August 07, 2008 9:58 AM  
To: Mitchell, Kris C. CIV NG ORARNG  
Subject: Camp withycombe EA/FONSI

Hi Kris. I got a call from "Punch" aka "Soy" about getting a response to your request for comment on the Implementation of Brac Actions at Camp withycombe. We have no comment to be provided regarding the proposed action. Consider this our official response. Thank you. Richard Szlemp, U.S. Fish and wildlife Service, Portland, Oregon

RE Draft MOA for Camp Withycombe (UNCLASSIFIED)  
From: Eirik Thorsgard [Eirik.Thorsgard@grandronde.org]  
Sent: Friday, July 11, 2008 9:21 AM  
To: Mitchell, Kris C. CIV NG ORARNG  
Cc: sbird@wstribes.org  
Subject: RE: Draft MOA for Camp Withycombe (UNCLASSIFIED)

July 11, 2008

Mr. Kris Mitchell

NEPA/Cultural Resources Manager

Oregon Military Department (AGI-E)

Phone: 503-584-3164 Fax: 3584 (DSN) 355-3164

email: kris.c.mitchell@us.army.mil Oregon Watersheds

Re: Camp Withycombe MOA/EA

Dear Mr. Mithcell,

The Confederated Tribes of Grand Ronde Community of Oregon Cultural Resources Department would like to thank you for the information that you have provided to the Tribes Cultural Resources Department in regards to Camp Withycombe.

The Tribes Cultural Resources Department after reviewing the GIS databases regarding Cultural and Archaeological Resources for the project area has found that no negative impacts should occur during any proposed projects at this time.

The Confederated Tribes of the Grand Ronde Community of Oregon Cultural Resources Department would like to thank you for consulting with us in regards to Camp Withycombe. If at any time you need assistance in regards to Cultural Resources issues please feel free to contact the Confederated Tribes of the Grand Ronde Community of Oregon Cultural Resources Department.

Sincerely,

Eirik Thorsgard MAIS  
Cultural Protection Coordinator  
Confederated Tribes of Grand Ronde Community of Oregon  
503-879-1630  
eirik.thorsgard@grandronde.org



# Oregon

Thoulaye R. Kichingoski, Governor

## Parks and Recreation Department

State Historic Preservation Office

725 Summer St. NE, Suite C

Salem, OR 97301-1266

(503) 986-0707

FAX (503) 986-0703

[www.hcd.state.or.us](http://www.hcd.state.or.us)



July 21, 2008

Sergeant Major Gerald Elliott, ret.  
OMD Installations Division  
PO Box 14350  
Salem, OR 97309-5047

RE: SHPO Case No. 08-1640  
BRAC actions at Camp Withycombe - draft EA and draft MOA  
10101 SE Clackamas Rd, Clackamas, Clackamas County

Dear Sergeant Major Elliott:

We have reviewed the draft Environmental Assessment (EA) and draft Memorandum of Agreement (MOA) for the Base Closure and Realignment (BRAC) actions at Camp Withycombe, Oregon. Based on this documentation, and past coordination with our office, the SHPO concurs with the finding of an Adverse Affect on National Register eligible buildings at Camp Withycombe. Additionally, we accept the MOA stipulations as mitigation for these adverse effects.

Our response here is to assist you with your responsibilities under the National Environmental Policy Act (per 32 CFR Part 651), and Section 106 of the National Historic Preservation Act (per 36 CFR Part 800). Please feel free to contact me if you have further questions, comments or need additional assistance.

Sincerely,

Sarah Jalving

Historic Compliance Specialist

(503) 986-0679 or [Sarah.Jalving@state.or.us](mailto:Sarah.Jalving@state.or.us)

**MEMORANDUM OF AGREEMENT  
AMONG  
THE NATIONAL GUARD BUREAU,  
THE OREGON ARMY NATIONAL GUARD,  
AND  
THE OREGON STATE HISTORIC PRESERVATION OFFICE  
FOR THE  
CAMP WITHYCOMBE AFRC CONSTRUCTION PROJECT  
(2008)**

WHEREAS, the National Guard Bureau (NGB), as a federal agency, is required to comply with the National Historic Preservation Act (16 USC §470f et seq.) (NHPA), and the NGB provides federal funding and guidance to state National Guard organizations; and

WHEREAS, the Oregon Army National Guard (ORARNG) intends to complete several projects, including construction of a new Armed Forces Reserve Center (AFRC), development of a Camp Withycombe Site Development Plan, and cleanup of the former Small Arms Firing Ranges (SAFR), at Camp Withycombe located in Clackamas, Clackamas County, Oregon; and demolition of one Quonset hut and relocation of another currently at St. Helens, Columbia County, Oregon to Camp Withycombe using both federal and state funding sources; and

WHEREAS, for the purposes of this MOA, the aforementioned projects are collectively referred to as the “Camp Withycombe AFRC project;” and

WHEREAS, Appendix A to this MOA identifies the 46 properties, including those on the former SAFR located on adjacent property, that the OR ARNG will either demolish or modify as part of the Camp Withycombe AFRC project, their date of construction, and their eligibility for inclusion on the National Register of Historic Places (NRHP); and

WHEREAS, the ORARNG evaluated the 46 properties listed in Appendix A and determined that 13 properties are eligible for the NRHP, and ORARNG received concurrence with this finding from the Oregon State Historic Preservation Office (SHPO) by correspondence dated 9 October 1997, 13 July 2001, and 14 August 2003; and

WHEREAS, the ORARNG has determined that the demolition and modifications required by the Camp Withycombe AFRC project will have an adverse effect on the historic properties listed in Appendix A; and

WHEREAS, the ORARNG has consulted with the Oregon SHPO pursuant to §800.6(b) of (36 CFR Part 800) *Protection of Historic Properties*, implementing section 106 of the NHPA; and

WHEREAS, the ORARNG has determined that there are no federally recognized Indian tribes that attach traditional religious and cultural importance to the structures and landscape within the area of potential effects (meetings April 2, 2008 and April 9, 2008; email correspondence July 11, 2008); and

WHEREAS, buildings and structures, so marked in Appendix A, are covered under the *Program Comment For World War II and Cold War era (1939-1974) Ammunition Storage Facilities*, approved by the Advisory Council on Historic Preservation (ACHP) and issued on 18 August 2006 to the Department of Defense; and

WHEREAS, the ORARNG has afforded the consulting public an opportunity to comment on the planned mitigation for the Camp Withycombe AFRC by consulting with the Clackamas County Historic Review Board (Concurring Party), by soliciting public comments through public notice in the *Oregonian* published July 11, 2008, by public notice published on the Clackamas County Heritage Council Listserv on July 21, 2008, and by soliciting State and Federal Agency comments on a draft Environmental Assessment (EA) pursuant to the National Environmental Policy Act (40 CFR Part 1500-1508); and

WHEREAS the ORARNG, in consultation with the Oregon SHPO, established the area of potential effect (APE) as defined at 36 CFR 800.16(d), identified and evaluated the buildings and structures listed and so marked in Appendix A within the APE as being eligible for the NRHP, and determined that the proposed undertaking would adversely affect such buildings; and

WHEREAS there are no other properties within the APE considered eligible for the NRHP; and

WHEREAS the ORARNG, by letter dated 11 July 2007, invited the ACHP to participate in this consultation per 36 CFR §800.6(a)(1) and the ACHP has declined to participate in consultation by letter dated 31 October 2007; and

WHEREAS the ORARNG has determined that adaptive reuse or any other alternative to save those buildings and structures listed in Appendix A that ORARNG plans to demolish is not economically feasible; and

WHEREAS the ORARNG, in consultation with the Oregon SHPO, has determined that there are no prudent or feasible alternatives for the project scope or location.

NOW, THEREFORE, the NGB, the ORARNG, and the Oregon SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

### STIPULATIONS

The ORARNG will ensure that the following measures are implemented:

#### *I. Mitigation of Adverse Effects of the Camp Withycombe AFRC project.*

- A. The ORARNG will create a historic area at Camp Withycombe between Building 6101 Armory and Building 6110, inclusive (see Appendix B). The approximately 5.91 acre historic area will be separated by fence from the rest of Camp Withycombe and readily accessible to the public.
  1. The ORARNG will relocate the existing Oregon Military Museum from Building 6232 at Camp Withycombe to the NRHP-eligible Building 6101 Armory.
  2. The ORARNG will move the NRHP-eligible Building 6525 Barn to the new Camp Withycombe historic area and continue to use it for museum storage and display space.
  3. The ORARNG will move the NRHP-eligible Building 4604 Quonset hut from St. Helens, Oregon to the new historic area at Camp Withycombe and use it for museum storage, restoration, and display space.
  4. The ORARNG will move Building 6220 Quonset hut to the historic area and continue to use it as museum storage and display space.
  5. The ORARNG will preserve two steel target lifters and requisite cut stone abutment from the original 1,000-yard Known Distance Range for eventual display in the historic area.

6. The ORARNG will preserve selected architectural and material elements from the Building 6500 or 6505 Truck Barns for eventual incorporation into a scaled-down representation in the historic area. The elements to be preserved will be selected in the future based on representation, condition and integrity of materials.
- B. The ORARNG will conduct 35mm black and white or digital (1600 x 1200 pixels at 300 pixels per inch or larger) photo-documentation of all NRHP-eligible buildings and structures before they are moved, demolished, or altered.
- C. In the unlikely event that cultural remains are discovered during construction activities, the ORARNG will stop work in the area of the discovery and follow established inadvertent discovery procedures.

## ***II. Administrative Stipulations***

- A. Professional supervision. The ORARNG shall ensure that all historic preservation activities pursuant to this MOA are carried out by or under the direct supervision of a historian or architectural historian meeting at a minimum the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44716, September 1983).
- B. Anti-Deficiency Act compliance. All requirements set forth in this MOA requiring expenditure of Army funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 USC 1341). No obligation undertaken by the Army under the terms of this MOA shall require or be interpreted to require a commitment to expend funds not appropriated for a particular purpose.
- D. Amendment. At any time during implementation of the measures stipulated in this MOA, any signatory may propose in writing to the other signatories that the MOA be amended, whereupon the signatories will consult in accordance with 36 CFR 800.6(c) to consider such an amendment.
- E. Termination. At any time during implementation of the measures stipulated in this MOA, any signatory may propose in writing to the other signatories that the MOA be terminated, whereupon the signatories will first consult on amending the MOA. If the signatories are unable to agree on an amendment to the MOA after 30 days, then the MOA will be terminated, the signatory requesting termination will also terminate consultation, so notifying the other signatories, and the ORARNG will proceed in accordance with 36 CFR 800.7.
- F. Termination date. If the terms of this agreement have not been implemented within ten years from the date of the signatures in Section III below, then the ORARNG will consult with the other signatories to determine if the MOA should be amended. If the signatories are unable to agree on an amendment to the MOA after 30 days, then the MOA will be terminated, the ORARNG shall so notify the parties to this agreement, and if it chooses to continue with the undertaking, shall re-initiate review of the undertaking in accordance with 36 CFR Part 800.

Execution of this MOA and implementation of its terms evidence that the NGB and the ORARNG have afforded the Council an opportunity to comment on the Camp Withycombe AFRC project and its effects on historic properties, and that the NGB and the ORARNG have taken into account the effects of the Camp Withycombe AFRC project on historic properties. Until a signed copy of the MOA has been filed with the ACHP, the MOA is not valid. A signed copy will also be sent to the Department of the Army, Assistant Chief of Staff for Installation Management, for their files.

MEMORANDUM OF AGREEMENT  
AMONG  
THE NATIONAL GUARD BUREAU,  
THE OREGON ARMY NATIONAL GUARD,  
AND  
THE OREGON STATE HISTORIC PRESERVATION OFFICE  
FOR THE  
CAMP WITHYCOMBE AFRC CONSTRUCTION PROJECT  
(2008)

Signature Page

NATIONAL GUARD BUREAU

By: *Eric N. Andersen*  
*for* JEFFREY G. PHILLIPS  
Colonel, US Army  
Chief, Environmental  
Programs Division

Date: *8 Aug 08*

OREGON ARMY NATIONAL GUARD

By: *Raymond F. Rees*  
RAYMOND F. REES  
Major General, Oregon Army National Guard  
The Adjutant General

Date: *18 aug 08*

OREGON STATE HISTORIC PRESERVATION OFFICE

By: *Roger Roper*  
ROGER ROPER  
Oregon Deputy State Historic Preservation Officer

Date: *8-15-08*

CONCURRING PARTIES:

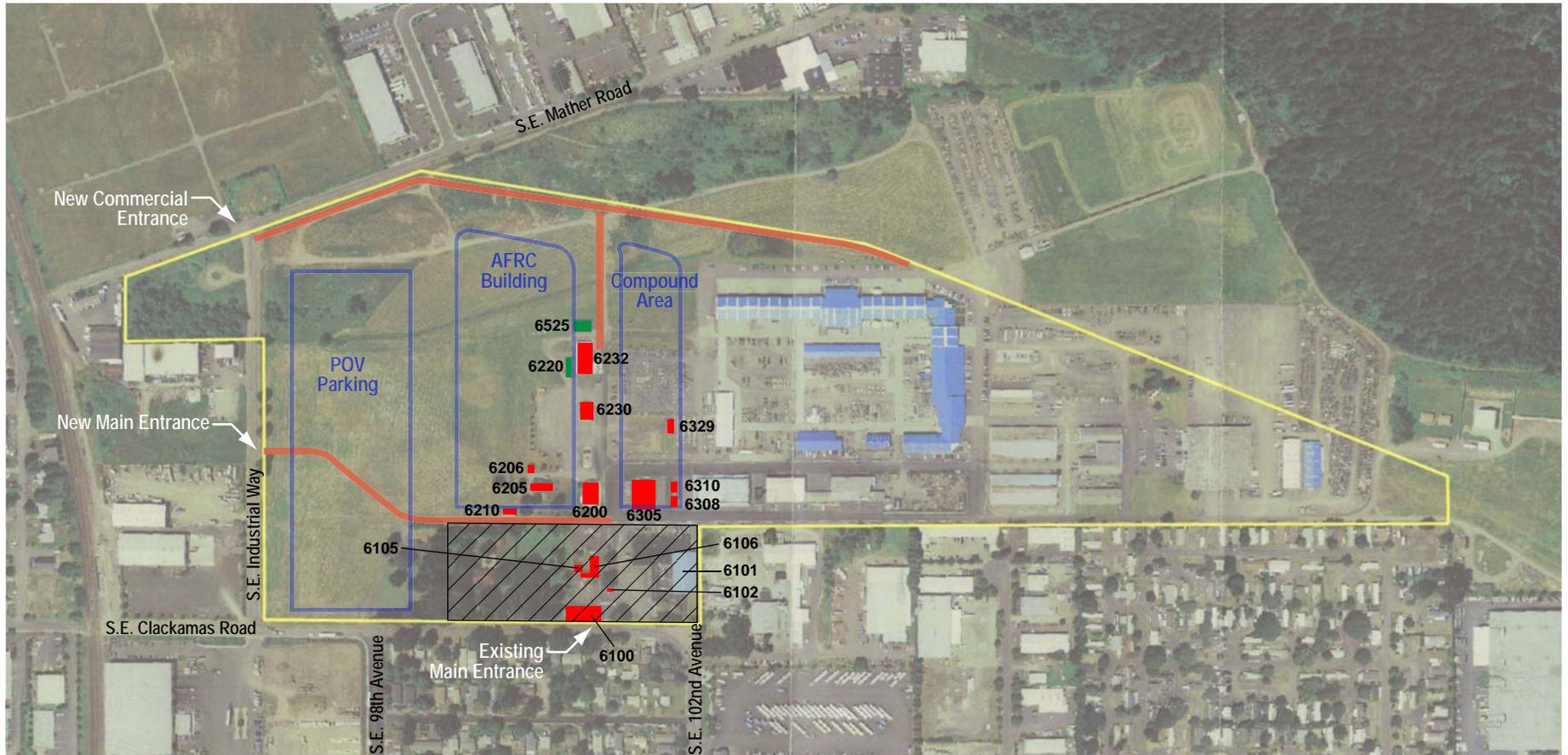
CLACKAMAS COUNTY HISTORIC REVIEW BOARD

By: *Todd I. Selin*  
TODD ISELIN  
Chair, Clackamas County Historic Review Board

Date: *8/19/08*

Appendix A: Buildings Affected by the Camp Withycombe AFRC Project

No.	Building Name	Date Built	Feet <sup>2</sup>	NRHP	Project	Building Fate
6100	Classroom	1912	4905	Not	AFRC	demolish
6101	Armory	1957	32,654	Eligible	AFRC	minor alteration
6102	Access Control	1992	76	Not	AFRC	demolish
6105	Recruiting Office	1953-1956	2,068	Not	AFRC	demolish
6106	Recruiting Office	1959	499	Not	AFRC	demolish
6200	741 BN HQ	1936-1945	4,160	Not	AFRC	demolish
6205	Family Support	1936-1945	1,124	Not	AFRC	demolish
6206	Storage	1953-1956	240	Not	AFRC	demolish
6210	Storage	1951	1,168	Not	AFRC	demolish
6220	Museum Display	1953	1,156	Not	AFRC	move to HA
6230	Museum Storage	1953-1956	1,354	Not	AFRC	demolish
6232	Museum	1984	6,323	Not	AFRC	demolish
6305	QSFD/741 HQ	1924-1936	4,427	Eligible	AFRC	demolish
6308	Ammo Storage	1919-1924	450	Eligible	AFRC	demolish
6310	Ammo Storage	1924-1936	450	Eligible	AFRC	demolish
6329	Latrine/Shower	1953-1956	981	Not	AFRC	demolish
6500	Storage	1934	19,701	Eligible	Draft CWDP	demolish
6505	Storage	1934	19,702	Eligible	Draft CWDP	demolish
6510	Administrative	1953-1956	10,752	Not	Draft CWDP	demolish
6511	Storage Shed	1979	3,072	Not	Draft CWDP	demolish
6525	Battery Barn	1912	1,576	Eligible	AFRC	move to HA
6652	KD Storage	1977	1,228	Not	SAFR	demolish
6675	KD Storage	1962	390	Not	SAFR	demolish
6676	KD Storage	1965	132	Not	SAFR	demolish
6700	Range Storage	1971-1980	277	Not	SAFR	demolish
6705	Range Shed	1948-1953	930	Not	Draft CWDP	demolish
6706	Range Shed	1977	522	Not	Draft CWDP	demolish
6710	Storage	1960	800	Not	Draft CWDP	demolish
6720	Range Shed	1956-1962	1,698	Not	Draft CWDP	demolish
6725	Ammo Bunker	1971	128	PC	SAFR	demolish
6726	Ammo Bunker	1971	200	PC	SAFR	demolish
6727	Ammo Bunker	1971	272	PC	SAFR	demolish
6728	Ammo Bunker	1971	160	PC	SAFR	demolish
6729	Ammo Bunker	1971	80	PC	SAFR	demolish
6730	Ammo Bunker	1971	80	PC	SAFR	demolish
6731	Ammo Bunker	1971	64	PC	SAFR	demolish
6732	Ammo Bunker	1971	64	PC	SAFR	demolish
6733	Ammo Bunker	1971	64	PC	SAFR	demolish
6734	Ammo Bunker	1971	64	PC	SAFR	demolish
n/a	KD Range	1915	n/a	Eligible	SAFR	demolish
n/a	Military Pistol Range	1938	n/a	Eligible	SAFR	demolish
n/a	MG Range	1956	n/a	Eligible	SAFR	demolish
n/a	Multnomah Range	1977-1980	n/a	Not	SAFR	demolish
n/a	Small Bore Range	1938	n/a	Eligible	SAFR	demolish
4604	St Helens Q-hut Storage	1948	3,400	Eligible	Armory Upgrade	move to HA
4605	St Helens Q-hut Storage	1948	1,000	Eligible	Armory Upgrade	demolish
Legend	PC-Program Comment by the Advisory Council on Historic Preservation dated 18 August 2006					
	Draft CWDP-Draft Camp Withycombe Development Plan					
	HA-Historic Area					
	SAFR-Small Arms Firing Range cleanup project					



- Legend
- Camp Withycombe Boundary
  - AFRC Complex
  - / Proposed Historic Area
  - Buildings to be Demolished
  - Buildings to be Relocated to Historic Area
  - New Roadway



Source: Camp Withycombe

APPENDIX B  
Proposed AFRC Complex and Historic Area

# Appendix B

## Public Involvement

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# The Oregonian

ESTABLISHED 1850

1320 S.W. BROADWAY PORTLAND, OREGON 97201-3499

## Affidavit of Publication

I Sherrie Arehart, duly sworn depose and say that I am the Principal Clerk Of The Publisher of The Oregonian, a newspaper of general circulation, as defined by ORS 193.010 and 193.020, published in the City of Portland, in Multnomah County, Oregon; that the advertisement, a printed copy of which is here to attached, was published without interruption in the entire and regular issue of the Oregonian or the issue on the following dates:

10/18/08 through 10/18//08

*Sherrie Arehart*

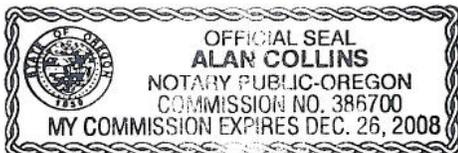
Principal Clerk Of The Publisher

Subscribed and sworn to before me November 4, 2008

by

*Alan Collins*

Notary Public for Oregon



### Implementation of BRAC Actions at Camp Withycombe, Oregon

The Oregon Army National Guard (ORARNG) has prepared a draft Finding of No Significant Impact (FNSI) with supporting final Environmental Assessment (EA) and final Memorandum of Agreement (MOA) for the implementation of Base Realignment and Closure (BRAC) actions at Camp Withycombe, 10101 SE Clackamas Road, Clackamas, Oregon. The BRAC actions proposed for Camp Withycombe and described in the referenced documents would involve 1) construction and operation of an Armed Forces Reserve Center (AFRC) Complex at Camp Withycombe, 2) demolition of 14 buildings, relocation of 2 buildings, and establishment of a Historic Area south of the AFRC Complex, 3) upgrades / modifications to the camp roadway and utility infrastructure in and around the proposed AFRC Complex site, and 4) relocation of ORARNG and U.S. Army Reserve units from existing facilities in the Portland metropolitan area to Camp Withycombe. The FNSI and EA were prepared in accordance with the National Environmental Policy Act of 1969, as amended. The MOA was prepared in accordance with the National Historic Preservation Act of 1966, as amended. The documents are available for public review and comment beginning October 18, 2008 on the BRACD website at [http://www.hqda.army.mil/acsim/brac/env\\_ea\\_review.htm](http://www.hqda.army.mil/acsim/brac/env_ea_review.htm), at the Multnomah County Library (Central Library), 801 SW 10th Avenue, Portland, Oregon 97205, and at the Clackamas Corner Library, 11750 SE 82nd Avenue, Suite D, Happy Valley, Oregon 97086. The comment period will close on November 16, 2008. Please address written comments to Mr. Tunch Orsoy, CH2M HILL, 4350 West Cypress Street, Suite 600, Tampa, Florida 33607; telephone: (813) 874-0777; email:

[torsoy@ch2m.com](mailto:torsoy@ch2m.com)

## Appendix C

### General Air Conformity - Record of Non-Applicability

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**General Conformity – Record of Non-Applicability**

**Project/Action Name:** Implementation of BRAC Actions at Camp Withycombe, Oregon

**Project/Action Identification Number:** W91278-04-D-0004 DO 0007

**Project/Action Point of Contact:** Tunch Orsoy, CH2M HILL

**Begin Date:** May 2009

**End Date:** June 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 action because total direct and indirect carbon monoxide emissions are below the conformity threshold values established at 40 CFR 93.153 (b) and this action is not considered regionally significant under 40 CFR 93.153(i).

Supporting documentation and emission estimates are attached.

Signed

  
Gerald Elliott

Environmental Program Manager

Oregon Military Department

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## LIST OF ATTACHMENTS

Attachment 1: Model Results

# GENERAL CONFORMITY REVIEW (GCR)

## Implementation of BRAC Actions at Camp Withycombe, Oregon

### 1.0 PROPOSED ACTION

From May 2009 through June 2011, the Oregon Army National Guard (ORARNG) proposes to construct an Armed Forces Reserve Center (AFRC) on Camp Withycombe in Clackamas County, Oregon.

The AFRC is needed for the following ORARNG and U.S. Army Reserve (USAR) units that are being realigned as a result of the 2005 Defense Base Realignment and Closure (BRAC) Commission's recommendations:

- Lake Oswego Armory (ORARNG) in Lake Oswego, OR
- Maison Armory (ORARNG) in Tigard, OR
- Jackson Armory (ORARNG) in Portland, OR
- Sears Hall Reserve Center (USAR) in Portland, OR
- Sharff Hall Reserve Center (USAR) in Portland, OR

In addition to the AFRC construction, 14 existing buildings would be demolished and 2 buildings would be relocated. No new significant stationary sources would be added to the site during the project. The general conformity review for this project pertains only to construction-related emissions and facility space heating. Mobile source emissions and operational emissions are not considered because these emissions are insignificant or the pollutant type is not of interest. The emission type of interest is carbon monoxide. The area around Camp Withycombe is currently designated as a maintenance area for carbon monoxide and as being in attainment for the other criteria pollutants.

### 2.0 CALCULATION OF EMISSIONS

The U.S. Environmental Protection Agency has established National Ambient Air Quality Standards for six principal pollutants, which are called criteria pollutants (Table A).

TABLE A  
NATIONAL AMBIENT AIR QUALITY STANDARDS CRITERIA POLLUTANTS

Pollutant	Primary Standards <sup>a</sup>	Averaging Times	Secondary Standards
Carbon Monoxide	9 ppm (10 mg/m <sup>3</sup> )	8-hour <sup>b</sup>	None
	35 ppm (40 mg/m <sup>3</sup> )	1-hour <sup>b</sup>	None
Lead	1.5 µg/m <sup>3</sup>	Quarterly Average	Same as Primary
Nitrogen Dioxide	0.053 ppm (100 µg/m <sup>3</sup> )	Annual (Arithmetic Mean)	Same as Primary

**TABLE A**  
**NATIONAL AMBIENT AIR QUALITY STANDARDS CRITERIA POLLUTANTS**

Pollutant	Primary Standards <sup>a</sup>	Averaging Times	Secondary Standards
Particulate Matter (PM10)	Revoked <sup>c</sup>	-----	Revoked <sup>c</sup>
	150 µg/m <sup>3</sup>	24-hour <sup>d</sup>	Same as Primary
Particulate Matter (PM2.5)	15.0 µg/m <sup>3</sup>	Annual <sup>e</sup> (Arithmetic Mean)	Same as Primary
	35 µg/m <sup>3</sup>	24-hour <sup>f</sup>	Same as Primary
Ozone	0.08 ppm	8-hour <sup>g</sup>	Same as Primary
Sulfur Oxides	0.03 ppm	Annual (Arithmetic Mean)	-----
	0.14 ppm	24-hour <sup>b</sup>	-----
	-----	3-hour <sup>b</sup>	0.5 ppm (1300 µg/m <sup>3</sup> )

<sup>a</sup> ppm = parts per million, µg/m<sup>3</sup> = micrograms per cubic meter

<sup>b</sup> Not to be exceeded more than once per year.

<sup>c</sup> Revoked, due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution, the agency revoked the annual PM10 standard in 2006 (effective December 17, 2006).

<sup>d</sup> Not to be exceeded more than once per year on average over 3 years.

<sup>e</sup> 3-year average of the weighted annual mean PM<sub>2.5</sub> concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m<sup>3</sup>.

<sup>f</sup> 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m<sup>3</sup> (effective December 17, 2006).

<sup>g</sup> 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.

Source: <http://www.epa.gov/air/criteria.html> (EPA, 2007a)

## 2.1 Government Vehicle Use

The proposed project would neither increase nor decrease the total number of military vehicles assigned to ORARNG or to USAR. Additionally, the vehicles would continue to be used for training in the Portland area. The mission and annual mileage for each vehicle would not change with the move to Camp Withycombe. Therefore, emissions from military vehicles have not been considered in this report.

## 2.2 Personal Vehicle Use

The proposed project would not change the number of personnel in the area of interest. It is assumed that the overall driving distances would not significantly increase as Camp Withycombe and the facilities proposed for closure are all located in the Portland, Oregon metropolitan area.

### **2.3 Construction-Related Emissions**

The proposed project would include a 260,000-sf AFRC, 400-sf flammable materials storage shed, 300-sf controlled waste storage shed, 26,000-sf vehicle maintenance shop, and 58,300 sy of paved parking. Paved parking would serve military and privately owned vehicles. As part of the proposed project, 14 buildings with a total area of 28,225 sf would be demolished.

The U.S. Air Force Air Conformity Application Model (ACAM), version 4.3.3, was used to estimate construction related emissions and facility space heating emissions. For construction related emissions, ACAM splits facility construction into two phases; Phase 1 is grading and Phase 2 is the actual construction activity. The following data was input into the model:

#### **Armed Forces Reserve Center**

- Office/Employment Units - 260,700 sf
- Duration of Phase 1 - 90 days
- Gross Area to be Graded - 17.9 acres (includes proposed buildings and parking area)
- Soil Piles - covered or watered twice daily
- Loads - Secure Cover
- Exposed Surface/Grading - watered twice daily
- Truck Hauling Road - paved
- Start Date of Construction - 1<sup>st</sup> Quarter 2010
- Duration of Phase 2- 540 days
- Total Acres Paved with Asphalt - 12.1 (parking area)

#### **Vehicle Maintenance Shop**

- Office/Employment Units - 26,000 sf
- Duration of Phase 1 - 90 days
- Gross Area to be Graded - 0.60 acres
- Soil Piles - covered or watered twice daily
- Loads - Secure Cover
- Exposed Surface/Grading - watered twice daily
- Truck Hauling Road - paved
- Start Date of Construction - 1<sup>st</sup> Quarter 2010
- Duration of Phase 2- 540 days

The model calculates emissions for the following activities:

- Grading Equipment Emissions (pounds/day, assume 1 grader, 1 wheeled and 1 tracked loader/grader per 10 acres. All equipment is diesel powered and used 6 hours per day)
- Emissions Due to Construction Worker Trips (based on 0.42 trips per 1000 sf-day and emission factors)
- Stationary Equipment Emissions (based on sf to be constructed during Phase II, assume 2 pieces of gasoline powered equipment per 10,000 sf, equipment used 6 hours per day, and equipment average horsepower of 10 hp each)
- Mobile Equipment Emissions (mobile equipment used during Phase II construction, assume 2 pieces of diesel powered equipment per 10,000 sf and equipment used 6 hours per day)
- Grading Operations Emissions (pounds/day, assume one storage pile on 1/5 of an acre per 10 acres graded, 3 pieces of heavy equipment per day per 10 acres graded)
- Architectural Coating Emissions (based on square root of gross sf of non-residential building space)
- Daily VOC Emissions from Asphalt paving (based on total acres to be paved)
- Facility Heating (based on heating energy requirement and emission factors for natural gas)

Total construction-related emissions generated by the proposed action are expected to include a one-time release of 132.6 tons of carbon monoxide over the 540-day construction period (see attached model results). The annual average increase in carbon monoxide emissions from heating the proposed buildings would be 0.87 tons per year (see attached model results). The expected carbon monoxide emissions for each year of the proposed project are summarized in Table B.

<b>Table B.</b> <b>SUMMARY OF EXPECTED ANNUAL CARBON MONOXIDE EMISSIONS (tons)</b> <b>Construction and Operation of Armed Forces Reserve Center</b>			
<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
0	67.8	65.1	0.87

### 3.0 CONCLUSIONS

Total emissions generated by the proposed action are expected to include a one-time release of 132.6 tons of carbon monoxide due to construction-related emissions, as well as an ongoing increase of 0.87 ton/year of carbon monoxide. As shown in Table B., the expected annual emissions of carbon monoxide as a result of the proposed action would be less than 70 ton/year. These increases are well below the conformity threshold value. Therefore, a general conformity review is deemed unnecessary at this time.

# Attachment 1

## Model Results

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# USAF Air Conformity Applicability Model

## Emissions Summary Information

Scenario: Proposed Action – AFRC, Camp Withycombe

### Emissions Summary Report For 2009

SOURCE CATEGORY	Emissions, Ton/Year					
	CO	NOX	SO2	VOC	PM10	PM2.5
<b>Area Sources</b>						
Demolition	0.00	0.00	0.00	0.00	0.17	0.00
Total	0.00	0.00	0.00	0.00	0.17	0.00
<b>Grand Total</b>	0.00	0.00	0.00	0.00	0.17	0.00

# USAF Air Conformity Applicability Model

## Emissions Summary Information

Scenario: Proposed Action – AFRC, Camp Withycombe

### Emissions Summary Report For 2010

SOURCE CATEGORY	Emissions, Ton/Year					
	CO	NOX	SO2	VOC	PM10	PM2.5
<b>Area Sources</b>						
Other Phase II Const. - Workers Trips	3.88	0.19	0.00	0.18	0.03	0.00
Other Phase I Const. - Grading Equip.	0.46	1.73	0.18	0.18	0.14	0.00
Other Phase I Const. - Grading Ops.	0.00	0.00	0.00	0.00	26.51	0.00
Other Phase II Const. - Acres Paved	0.00	0.00	0.00	0.01	0.00	0.00
Other Phase II Const. - Mobile Equip.	8.15	19.44	2.40	1.78	1.57	0.00
Other Phase II Const. - Non-Res. Arch. Ctgs.	0.00	0.00	0.00	0.27	0.00	0.00
Other Phase II Const. - Res. Arch. Ctgs.	0.00	0.00	0.00	0.00	0.00	0.00
Other Phase II Const. - Stationary Equip.	55.28	1.43	0.07	2.07	0.04	0.00
Total	67.77	22.79	2.65	4.48	28.29	0.00
<b>Grand Total</b>	<b>67.77</b>	<b>22.79</b>	<b>2.65</b>	<b>4.48</b>	<b>28.29</b>	<b>0.00</b>

# USAF Air Conformity Applicability Model

## Emissions Summary Information

Scenario: Proposed Action – AFRC, Camp Withycombe

### Emissions Summary Report For 2011

SOURCE CATEGORY	Emissions, Ton/Year					
	CO	NOX	SO2	VOC	PM10	PM2.5
<b>Area Sources</b>						
Other Phase II Const. - Mobile Equip.	7.85	18.73	2.32	1.71	1.51	0.00
Other Phase II Const. - Non-Res. Arch. Ctgs.	0.00	0.00	0.00	0.26	0.00	0.00
Other Phase II Const. - Res. Arch. Ctgs.	0.00	0.00	0.00	0.00	0.00	0.00
Other Phase II Const. - Stationary Equip.	53.27	1.38	0.07	1.99	0.04	0.00
Other Phase II Const. - Workers Trips	3.74	0.19	0.00	0.17	0.03	0.00
Other Phase II Const. - Acres Paved	0.00	0.00	0.00	0.01	0.00	0.00
Total	64.87	20.30	2.39	4.14	1.58	0.00
<b>Point Sources</b>						
Other Const. - Facility Heating	0.22	0.27	0.00	0.01	0.02	0.00
Total	0.22	0.27	0.00	0.01	0.02	0.00
<b>Grand Total</b>	<b>65.08</b>	<b>20.56</b>	<b>2.39</b>	<b>4.16</b>	<b>1.60</b>	<b>0.00</b>

# USAF Air Conformity Applicability Model

## Emissions Summary Information

Scenario: Proposed Action – AFRC, Camp Withycombe

### Emissions Summary Report For 2012

SOURCE CATEGORY	Emissions, Ton/Year					
	CO	NOX	SO2	VOC	PM10	PM2.5
<b>Point Sources</b>						
Other Const. - Facility Heating	0.87	1.06	0.01	0.05	0.08	0.00
Total	0.87	1.06	0.01	0.05	0.08	0.00
<b>Grand Total</b>	0.87	1.06	0.01	0.05	0.08	0.00

# USAF Air Conformity Applicability Model

## Proposed Action Support Facilities Information

### Non-Aircraft Facilities Construction

Scenario: Proposed Action – AFRC, Camp Withycombe

### Proposed Action Support Facilities For 2010

	Space (sq ft)	Comm/Retail. Office/Empl.	Area Graded acres	Phase 1				Phase 2			
				No. Days	Soil Piles Covered	Exposed Surface Water -ed	Loads Free-board	Haul Roads Un-paved	No. Days	Paved (acres/yr)	
Vehicle Maintenance											
0	0	0	0.6	90	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	540	0
AFRC Building											
0	0	0	17.92	90	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	540	12.1
<b>Grand Total</b>											
0	0	0	18.52	180						1080	12.05

# Appendix D

## Results of EIFS Model

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## EIFS REPORT

### PROJECT NAME

Camp Withycombe, OR

### STUDY AREA

41005 Clackamas, OR  
 41009 Columbia, OR  
 41051 Multnomah, OR  
 41067 Washington, OR  
 41071 Yamhill, OR  
 53011 Clark, WA  
 53059 Skamania, WA

### FORECAST INPUT

Change in Local Expenditures	\$32,160,000
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 Military Living On-post	0

### FORECAST OUTPUT

Employment Multiplier	4.97	
Income Multiplier	4.97	
Sales Volume - Direct	\$25,623,410	
Sales Volume - Induced	\$100,443,800	
Sales Volume - Total	\$126,067,200	0.11%
Income - Direct	\$3,849,397	
Income - Induced	\$15,089,640	
Income - Total (place of work)	\$18,939,030	0.04%
Employment - Direct	88	
Employment - Induced	344	
Employment - Total	432	0.04%
Local Population	0	
Local Off-base Population	0	0%

### RTV SUMMARY

	Sales Volume	Income	Employment	Population
Positive RTV	8.68 %	8.16 %	2.89 %	1.41 %
Negative RTV	-7.42 %	-4.7 %	-4.36 %	-1.07 %

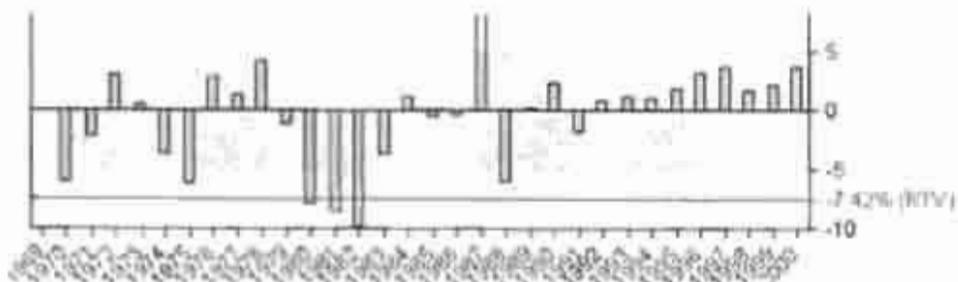
### RTV DETAILED

#### SALES VOLUME

TOTAL BUSINESS VOLUME

= % Deviation

± 8.68% (RTV)

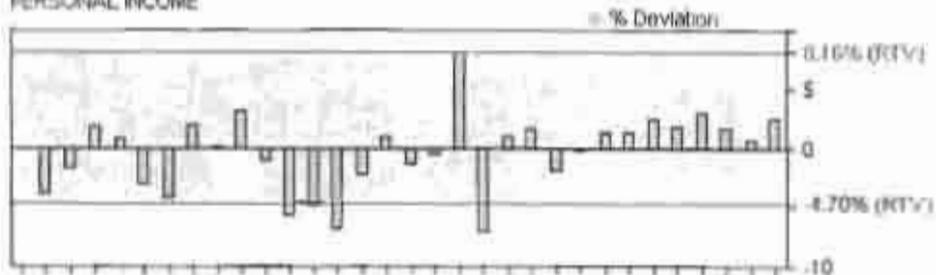


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Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	3458812	15115008	0	0	0
1970	3650392	15076119	-38889	-904195	-6
1971	3938474	15596357	520238	-345068	-2.21
1972	4431897	16974165	1377808	512502	3.02
1973	4968402	17935931	961766	96460	0.54
1974	5582660	18143645	207714	-557592	-3.62
1975	6007821	17903307	-240338	-1105644	-6.18
1976	6847252	19309250	1405943	540637	2.8
1977	7750143	20460378	1151128	285822	1.4
1978	9052784	22269849	1809471	944165	4.24
1979	10341223	22854103	584254	-281052	-1.23
1980	11336300	21992423	-863681	-1726987	-7.85
1981	11963813	21056311	-93612	-1801418	-8.56
1982	12017551	19949134	-1107177	-1972483	-9.89
1983	12480677	20093890	144756	-720550	-3.59
1984	13764888	21197927	1104037	238731	1.13
1985	14726851	21943008	745081	-120225	-0.55
1986	15564289	22723863	780854	-84452	-0.37
1987	16665714	25831856	3107993	2242687	8.68
1988	18526091	25195484	-636372	-1501678	-5.96
1989	20230629	26097511	907027	16721	0.14
1990	22442125	27603814	1506304	640998	2.32
1991	23677235	27939136	335322	579984	-1.9
1992	25479184	29046269	1107133	241827	0.83
1993	27283751	30284964	1238695	373389	1.23
1994	29158742	31491443	1206479	341173	1.08
1995	31401202	32971261	1479818	614512	1.86
1996	34260023	34945223	1973962	1108656	3.17
1997	37155140	37155140	2209917	1344611	3.62
1998	39423952	38675474	-1480334	615028	1.59
1999	42071282	40388430	-1752956	887650	2.2
2000	46026665	42804799	-2416369	1551063	3.62

## INCOME

PERSONAL INCOME



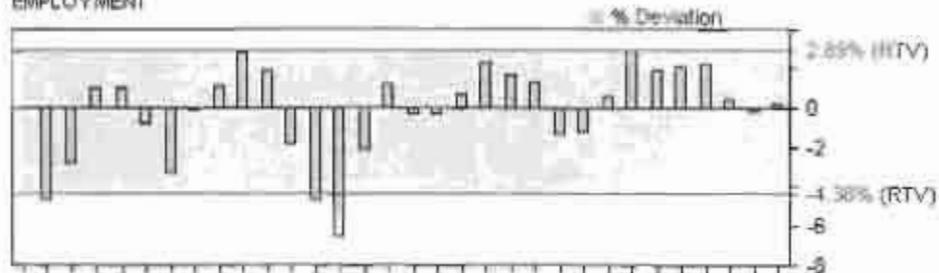


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Year	Value	Adj_Value	Change	Deviation	%Deviation
1969	4343086	18979285	0	0	0
1970	4704265	19428615	449330	-732772	-3.77
1971	5119242	20272199	843584	-338518	-1.67
1972	5709767	21868407	1596209	414107	1.89
1973	6436721	23236562	1368155	186053	0.8
1974	7298772	23721009	484447	-697655	-2.94
1975	8027093	23920737	199728	-982374	-4.11
1976	9089830	25633320	1712583	530481	2.07
1977	10169509	26847505	1214185	32083	0.12
1978	11762825	28936550	2089045	906943	3.13
1979	13485131	29802140	865590	-316512	-1.06
1980	15114411	29321958	-480182	-1662284	-5.67
1981	16527259	29087976	-233983	-1416085	-4.87
1982	17068459	28333641	-754334	-1936436	-6.83
1983	17930024	28867339	533698	-648404	-2.25
1984	19711500	30355709	1488370	306268	1.01
1985	20898824	31139248	783539	198563	-1.28
1986	22043221	32183104	1043856	-138246	-0.43
1987	23438868	36330244	4147141	2965039	8.16
1988	25774791	35053716	-1276528	-2458630	-7.01
1989	28384284	36615725	1562009	379707	1.04
1990	31270328	38462504	1846779	664677	1.73
1991	32980490	38916976	454472	-727630	-1.87
1992	35111434	40027034	1110058	-72044	-0.18
1993	37614398	41751982	1724948	542846	1.3
1994	40282537	43505142	1753159	571057	1.31
1995	43649621	45832100	2326958	1144856	2.5
1996	46945398	47884305	2052205	870103	1.82
1997	50626421	50626421	2742116	1560014	3.08
1998	53745386	52670479	-2044058	861956	1.64
1999	56480647	54221420	-1550941	368839	0.68
2000	61082314	56806952	-2585133	1403031	2.47

**EMPLOYMENT**

EMPLOYMENT

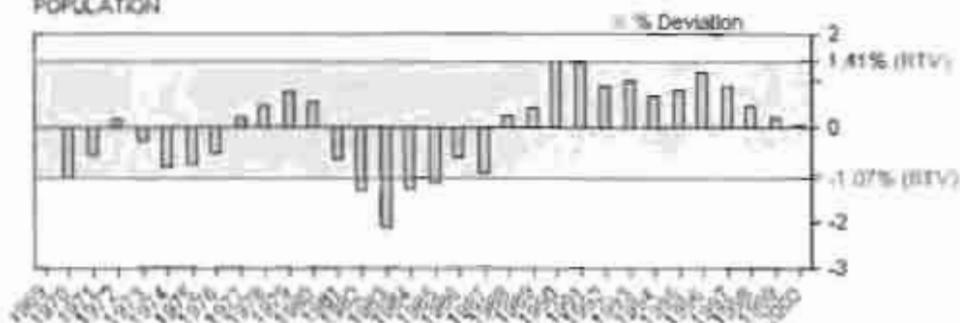


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Year	Value	Change	Deviation	%Deviation
1969	497080	0	0	0
1970	497090	10	23384	-4.7
1971	506310	9220	14174	-2.8

1972	575290	28980	5586	1.04
1973	564079	28789	5395	0.96
1974	582999	18920	-4474	-0.77
1975	587068	4069	-19325	-3.29
1976	609632	22764	-630	-0.1
1977	640419	30587	7193	1.12
1978	683289	42870	19476	2.85
1979	720039	36750	13356	1.85
1980	730195	10156	-13238	-1.81
1981	777527	-10668	-34062	-4.73
1982	697313	-27214	-45608	-6.54
1983	705715	8402	-14997	-2.12
1984	737713	31996	8604	1.17
1985	758795	21082	7312	-0.3
1986	780049	21254	-2140	-0.27
1987	808844	28795	5401	0.67
1988	851765	42921	19527	2.29
1989	890358	38593	15199	1.71
1990	925466	35108	11714	1.27
1991	936526	11060	-12334	-1.32
1992	948446	11920	-11474	-1.21
1993	977224	28778	5384	0.55
1994	1030377	53157	29759	2.89
1995	1073980	43603	20209	1.88
1996	1121225	47245	23851	2.13
1997	1170146	48921	25527	2.18
1998	1198089	27943	4549	0.38
1999	1219635	21546	-1848	-0.15
2000	1245694	26059	2665	0.21

**POPULATION**  
POPULATION



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Year	Value	Change	Deviation	%Deviation
1969	1069708	0	0	0
1970	1085025	15317	-11708	-1.08
1971	1105374	20349	-6676	-0.6
1972	1134259	28885	1860	0.16
1973	1157768	23509	-3516	-0.3
1974	1174809	17041	-9984	-0.85
1975	1192510	17701	-9324	-0.78
1976	1213090	20580	-6445	-0.53
1977	1242430	29340	2315	0.19
1978	1275246	32816	5791	0.45

1979	1312315	37069	10044	0.77
1980	1346705	34390	7365	0.55
1981	1364523	17818	-9207	-0.67
1982	1373347	8824	-18201	-1.33
1983	1371007	-2340	-29365	-2.14
1984	1380339	9332	-17693	-1.28
1985	1391474	11085	-15940	-1.15
1986	1409733	18309	-8716	-0.62
1987	1423238	13505	-13520	-0.95
1988	1451141	30903	3878	0.27
1989	1487717	33076	6051	0.41
1990	1535965	48748	21723	1.41
1991	1584767	48802	21777	1.37
1992	1625751	40984	13959	0.86
1993	1669701	43950	16925	1.01
1994	1708715	38515	11490	0.67
1995	1749224	41008	13983	0.8
1996	1797066	47842	20817	1.16
1997	1839867	42601	15776	0.86
1998	1875365	35498	8473	0.45
1999	1906262	30897	3872	0.2
2000	1934494	28232	1207	0.06

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