Draft Environmental Assessment

Fort Lawton Area 500 Demolition, Restoration, and Land Transfer

Seattle, Washington
May 31, 2001

US Army Corps of Engineers®

1.0 INTRODUCTION

Section 1500.1(c) and 1508.9(1) of the National Environmental Policy Act of 1969 (as amended) requires federal agencies to "provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact" on actions authorized, funded, or carried out by the federal government to insure such actions adequately address "environmental consequences, and take actions that protect, restore, and enhance the environment." This assessment evaluates environmental consequences from the implementation of management actions carried out by the U.S. Army Corps of Engineers (Corps) and the U.S. Army Reserve (USAR).

1.1 AUTHORITY AND JURISDICTION

Public Law 106-398, Sec. 2842, "Land Conveyance, Fort Lawton, Washington", provides the authority for which this Environmental Assessment is being prepared. It states that the Secretary of the Army may convey, without consideration, to the City of Seattle, all right, title, and interest to the real property of Fort Lawton, Area 500.

1.2 LOCATION AND GENERAL DESCRIPTION OF THE AFFECTED AREA

Two parcels of land totaling 11.42 acres are to be transferred to the City of Seattle. A portion of Washington Avenue (2.42 acres) and all of Area 500 (9.50 acres) are currently part of Fort Lawton USAR Base in T25N, R2E, Sections 10 & 15. The two parcels are also contained within the boundaries of Discovery Park, a park owned and operated by the City of Seattle. In the 1940's, Area 500 was constructed during World War II with 29 buildings that served as barracks for enlisted personnel. Today, only 25 buildings remain. It has been the desire of several interested groups, the City of Seattle, and the USAR to transfer Area 500 to the City of Seattle for incorporation into Discovery Park (Appendix B).

Discovery Park, at 534 acres, is Seattle's largest park and is maintained as an urban forest and sanctuary for wildlife. Recreation activities are passive in nature (hiking, birdwatching, beach exploration). Additional facilities within the Discovery Park area include the Discovery Park Visitor's Center, excessed military facilities (which are now part of Discovery Park), three areas of existing Navy housing, the Daybreak Star Indian Cultural Center, King County's Metro Sewage Treatment Plant, and a Federal Aviation Administration (FAA) communications tower.

1.3 PURPOSE AND NEED

The purpose of this project is to relinquish federal ownership of Area 500 and a portion of Washington Avenue to the City of Seattle in a condition that resembles the immediate surrounding environment. The USAR has identified that Area 500 and Washington Avenue are no longer needed to accomplish its mission and that releasing the property is in the public's best interest.

2.0 ALTERNATIVES

2.1 Alternative A – Preferred Alternative

The preferred alternative is to transfer ownership of Area 500 (9.5 acres) along with Washington Avenue, an associated asphalt road (2.42 acres), to the City of Seattle for inclusion into Discovery Park. This will include demolishing the remaining buildings, removing (or closing in-

place) associated utilities, and restoring the site to match characteristics found in Discovery Park (Appendix B).

The USAR will be the lead agency for the entire project and the Corps will be overseeing the demolition and restoration of Area 500. The Seattle Parks and Recreation Department provided the Corps with a list of their desires in how it would like to see Area 500 restored. Based on funding availability, the Corps will complete as much of the work identified below as possible. Work items will be prioritized according to their level of importance. The City of Seattle may complete those work items not completed due to lack of funding.

Project Details

1. Construction work will be scheduled to begin in July and completed by September 30, 2001.

2. Demolish and remove all 25 remaining buildings on the site.

3. Preserve selected mature trees, as identified by Seattle Department of Parks and Recreation staff.

4. Disconnect, cap, and/or remove all utilities on the site except those that are deemed necessary to remain by the appropriate utility companies and the Seattle Department of Parks and Recreation, per the following direction:

    a. Water: Remove meter on West Emerson and retain the existing 8" main under Wisconsin Street to the 12" water main in the main park roadway north of Area 500. Retain fire hydrants on this line. Abandon the water main on Louisiana Street and the connecting mains, and remove fire hydrants on the abandoned mains. Cut and cap all service connections to the buildings to be demolished at the main.

    b. Sewer: Abandon sanitary sewers south of manhole 95 and south of manholes 106 and 107. Demolish manholes on abandoned sewers. Preserve and protect remaining sewers that serve the NIKE building and the Navy housing to the west.

    c. Storm Drainage: Remove oil-water separators in parking lots north and south of Alabama Avenue, but protect the existing storm drainage system in this area that drains to the east.

    d. Electric: Remove all overhead and underground distribution systems except the 26Kv overhead system that serves the FAA radome and the NIKE building to the west. Remove street lighting. Remove underground vaults and handholds.

    e. Telecommunications: Remove telephone and other telecommunications lines.

    f. Heating Oil: Remove all above ground and underground heating oil storage tanks and provide for remediation of any contaminated soils.

5. Demolish and remove all paved surfaces, including all existing parking lots, roads, curbs, and walkways except for the driveway to the NIKE building. Along Wisconsin Street, remove the asphalt parking that runs behind the existing curb. Replace Wisconsin Street with an 8 foot wide gravel road from building #543 to south boundary of 500 Area.

6. Demolish and remove all perimeter fencing from the site. Install new fencing as necessary to ensure full enclosure of the NIKE storage site. Install either swing gates or bollards, similar to other gates in Discovery Park, at the north and south ends of Wisconsin Street as specified by the Seattle Department of Parks and Recreation.

7. Restore the site in a manner compatible with the general character of Discovery Park per site restoration plans to be furnished by the Seattle Department of Parks and Recreation. Site restoration work may include, but is not limited to grading, filling, amending the soil, purchasing and installing plants, and constructing paths for use by the general public.

Removal of all toxic and hazardous materials (e.g., lead-based paint, asbestos-containing material, and PCB light fixtures) will occur as part of the demolition and removal of existing structures and utilities. Such removal shall be undertaken with appropriate inspection, testing, and abatement procedures. Prior to any removal, an appropriate work plan shall be prepared and approved by the Corps. In addition, demolition and restoration shall adhere to all appropriate federal, state, and local regulations, as well as obtain all the necessary permits for demolition, disposal, and restoration.

2.2 Alternative B -- No Action

The no action alternative would result in the USAR retaining ownership of Area 500. In addition, the 25 buildings found on the site would not be demolished, nor would any work be completed as described in the project description.

3.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND CONSERVATION MEASURES

A large majority of information contained within the following sections was taken from the Environmental Assessment for the Relocation and Replacement of U.S. Army Reserve Facilities at Fort Lawton (DoD, 1997). This environmental assessment contained specific, detailed environmental information pertinent to Area 500, and was the best source available for determining effects.

3.1 SOILS AND TOPOGRAPHY

3.1.1 Affected Environment

Soils at the USAR properties are derived from sand, clay, and Vashon Till parent materials, but are predominantly sandy. Vashon Till is a non-sorted, non-stratified sediment deposited directly by an ice age glacier. This till is very dense as a result of its compacting beneath several thousand feet of ice, and consists of a mixture of rock aggregate of varying size, from sand particles to small boulders. This parent material is present throughout the USAR properties.

In the early 1940's Area 500 was cleared, tilled, and leveled to accommodate the building structures and utilities found there today. The site exhibits much of its original 1940's character with little or no soil or topography modifications.

3.1.2 Environmental Consequences

3.1.2.1 Alternative A - Proposed Action

No significant environmental consequences are anticipated as a result of implementing Alternative A. However, those consequences that do exist are mostly related to demolition and restoration. According to the environmental baseline evaluation conducted by Hart Crowser Inc. (2001), a potential exists that petroleum-contaminated soils may be encountered at former underground storage tank (UST) sites during excavation. If this situation is realized, the contractor will have in place, an established plan to properly excavate, treat, and/or dispose of the contaminated soils. If the soils are to be disposed of at an off-site disposal facility, new soil will be replaced in-kind.

Other potential consequences are a result of stormwater runoff, and include soil erosion and sediment deposition. These impacts are minimized by compliance with U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System general permit requirements for stormwater discharges at construction sites, as well as Army project planning and standard construction design and erosion control practices.

Construction specifications will call for conformance to local regulatory requirements and the development of and adherence to a Temporary Erosion Control Plan. The plan shall explain in writing and detail on drawings the measures, method, and facilities that the construction contractor shall install to provide temporary erosion control. Requirements of the plan are:

- The sedimentation control facilities must be constructed and in operation prior to land clearing and/or other construction to ensure that erosion is minimized and that sediment-laden water does not enter the natural drainage system.

- Sediment facilities shall be maintained in a satisfactory condition until such time that clearing and/or construction is completed and potential for on-site erosion has passed.

- The implementation, maintenance, replacement, and additions to erosion/sedimentation control systems shall be the responsibility of the contractor.

3.1.2.2 Alternative B - No Action Alternative

No impacts would occur under the No Action Alternative. Conditions would remain the same as those described above in Section 3.1.1.

3.1.3 Conservation Measures

None.

3.2 AIR QUALITY

3.2.1 Affected Environment

3.2.1.1 Air Quality Standards

For the protection of human health and the environment, the EPA has established National Ambient Air Quality Standards (NAAQS) for criteria air pollutants. Criteria pollutants are those with known adverse health effects and include: ground-level ozone (0_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), particulate matter less than 10 microns in diameter (PM_{10}), lead (Pb) and total suspended particulates (TSP). The EPA designates areas with air quality better than the NAAQS as "attainment" and those with air quality above the NAAQS as "non-attainment." The State of Washington has adopted all the NAAQS, with the exception of SO_2 for which a more stringent state standard has been adopted.

In the Puget Sound area, the Puget Sound Air Pollution Control Agency (PSAPCA) and the Washington State Department of Ecology (WDOE) share the responsibility of monitoring air quality. Monitoring efforts seek to determine if the region is in compliance with the NAAQS as well as local air quality standards that, in some cases, may be stricter than the NAAQS. There are 32 monitoring stations that sample air throughout the region, generally located where air quality problems are expected to occur, such as urban or industrial areas.

3.2.1.2 Existing Conditions

For most of the last three decades, the Puget Sound region has not been in compliance with the standards set for O_3, CO, and PM_{10} and was therefore designated as a non-attainment area. Since 1993, however, the area has maintained compliance and applied for "attainment" status in 1997.

Air quality in the immediate area surrounding the USAR properties is considered relatively good. Emissions from natural gas combustion in furnaces and hot water heaters in the surrounding residential areas contribute to NO_2 in the area. The West Point Wastewater Treatment facility, approximately one mile west of Area 500, is also a potential source of emissions, although the prevailing north/south winds typically prevent emissions from affecting air quality at the USAR properties. General industrial land uses occur approximately 0.5 to 0.75 of a mile east of the USAR properties, east of Gilman Avenue West. Air rarely flows from the east, and pollutant emissions from sources in this area have little effect on ambient air quality at the USAR properties.

3.2.2 Environmental Consequences

3.2.2.1 Alternative A - Proposed Action

Demolition, clearing, excavating, and other construction activities are likely to cause direct air quality impacts in the local area. The emissions from construction would be short term and are at rates below threshold levels that would invoke a formal CAA General Conformity Determination for non-attainment pollutants and are, therefore, presumed to conform to the goals of the State Implementation Plan for non-attainment pollutants. Because the emission rates are less than General Conformity threshold levels, they would not be expected to cause or contribute to new violations of any NAAQS, increase the frequency or severity of existing violations, or

delay the timely attainment of any NAAQS emissions reduction milestone.

3.2.2.2 Alternative B - No Action

No negative impacts to air quality would occur under the No Action Alternative. Air quality conditions would remain the same as those described above in Section 3.2.1.

3.2.3 Conservation Measures

Army construction specifications will require the implementation of an Environmental Protection Plan by all contractors that specifically identifies dust control and other fugitive emissions control measures for each construction component. Such measures include the use of acceptable dust suppressants, vacuuming, street sweeping, and truck load covers.

3.3 BIOLOGICAL RESOURCES

3.3.1 Affected Environment

The USAR properties and much of the surrounding area have been an active Army facility since 1898. Since that time, over 450 buildings have been constructed. In 1972, much of the Army's land was given to the City of Seattle for use as Discovery Park, as well as to the Navy for housing. Discovery Park is bordered by Shilshole Bay to the north and Elliott Bay to the south. Typical of northwest coastal lands, Discovery Park is a rich complex of mature coniferous/deciduous forests, open herbaceous meadows, deciduous shrub communities, high coastal bluffs, and rocky shoreline out-crops. Many wildlife species, ranging from marine mammals to upland game birds, are associated with the habitats provided at Discovery Park. However, the degree of human activity at the park, the USAR installation, and the Navy housing area generally precludes wildlife species from the immediate vicinity except those that are especially adapted to human presence/disturbance.

Biological resources at the USAR properties include vegetation communities/habitats and the wildlife associated with these habitats, and wetlands. Additionally, one federally listed threatened or endangered species is known to occur in the vicinity of the USAR properties. The following sections provide an overview of these biological resources.

3.3.1.1 Vegetation and Wildlife

Dominant tree species in the vicinity of Area 500 include Douglas-fir *(Pseudotsuga menziesii),* big-leaf maple *(Acer macrophyllum),* and red alder *(Alnus rubra).* The understory is composed mainly of salmonberry *(Rubus spectabilis),* Indian plum *(Qemleria cerasiformis),* and sword-fern *(Polystichum munitum).* The vegetative diversity of this area and its continuity with Discovery Park provide relatively high-quality habitat (i.e., large tracts of vegetated land that have not been significantly disturbed by invasive plant species and human activity) for numerous bird species. Some common species in this area include the downy woodpecker *(Picoides pubescens),* winter wren *(Trogoldytes troglodytes),* black-capped chickadee *(Parus atricapillus),* Swainson's thrush *(Catharus ustulatus),* great blue heron *(Ardea herodias),* and yellow-rumped warbler *(Dendroica coronata).* Forest habitats also provide both cover and forage for many small mammal species, including the deer mouse (*Peromyscus maniculatus*), mountain beaver *(Aplodontia rufa),* Townsend's chipmunk *(Eutamias townsendi),* gray squirrel *(Sciurus carolinensis),* and raccoon *(Procyon lotor).*

3.3.1.2 Wetlands

There are three wetland areas within Discovery Park; however, no streams or wetlands have been identified at the USAR properties.

3.3.1.3 Threatened and Endangered Species

Section 7(a) of the Endangered Species Act (ESA) of 1973 requires federal agencies to evaluate their actions with respect to any species listed or proposed to be listed as endangered or threatened. The regional U.S. Fish and Wildlife Service (USFWS) office was contacted to verify the presence of threatened and endangered wildlife and plant species in the area of the proposed project (Appendix C).

Only one federally threatened species, the bald eagle *(Haliaeetus leucocephalus),* was identified as occurring in the project vicinity. Although the bald eagle is known to nest in Discovery Park, no known threatened or endangered species occur on the USAR properties. Additionally, no state or federally listed plant species are known to occur on the USAR properties.

Bald Eagle

Bald eagles were first observed constructing a nest near the Discovery Park maintenance yard in April 1988. The nest was not completed that year, but the eagles returned to the territory and successfully fledged their first two chicks in 1989. A grand fir west of the maintenance yard was used for the nest site from 1989 through 1992. Although the top of this tree was blown off in a storm in November 1991, the eagles successfully nested there in 1992. In the fall of 1992, the eagles constructed a nest in a grand fir north of the maintenance yard. That nest was destroyed when the top of that tree was blown off in a storm on January 20, 1993. That storm also broke the original nest tree about 25 feet above the ground and several other trees were uprooted. The eagles were able to rebuild the nest and successfully raised two chicks that year. In late 1993 and early 1994, the eagles worked on potential nest sites in at least six locations in four different trees, including one outside Discovery Park over 3,000 feet from the primary nesting area.

Bald eagles need other trees in the nest vicinity for perching and overnight roosting. The forested area around the maintenance facility provides several trees that are suitable for perching or roosting. Although storms have destroyed several large trees in this vicinity, enough trees remain to maintain the site's suitability as a nest territory. In addition to the trees used in the immediate nest vicinity, the eagles also use trees on the bluff overlooking Puget Sound as foraging perches. Frequently used areas include the Daybreak Star Center, the Lawtonwood neighborhood, Bay Terrace, and South Bluff.

3.3.2 Environmental Consequences

3.3.2.1 Alternative A - Proposed Action

Vegetation and Wildlife

The environmental consequences associated with the demolition, restoration, and transfer of Area 500 will likely result in a benefit to both vegetation and wildlife species alike. However, short-term noise and visual disturbances are likely to temporarily affect wildlife in the immediate

area. These effects are considered negligible.

Wetlands

No wetlands or streams are located within the USAR properties; therefore, the Proposed Action would have no impact on these resources. The distance of the three wetlands in Discovery Park from the USAR properties precludes the potential for direct or indirect impacts from construction and operation of the Proposed Action.

Threatened and Endangered Species

Breeding bald eagles are known to be present in the vicinity of the project area. The north end of Area 500 is between 2,000 and 2,500 feet southeast of trees that have been used as nest sites by the bald eagles. This site is over 4,000 feet from preferred foraging sites along the bluff overlooking Shilshole Bay and at least 3,000 feet from other foraging areas on Magnolia Bluff. There are no unobstructed views from the nest tree or from foraging perches to this site, and the site is not on the normal flight pattern between the nest and foraging areas.

Although trees in this area are large enough to be used as perch or roost trees, the eagles are not known to use this area. A tall conifer with a snag top located about 200 feet north of this area has been used occasionally by adult and immature eagles. None of the trees on the site appear to have the structure that could support an eagle nest.

The bald eagles in Discovery Park have shown a remarkable level of tolerance for human activity. Based on a tolerance for construction activities in the Fort Lawton area, work proposed at Area 500 is not expected to have a significant adverse effect on the bald eagles nesting in Discovery Park (Corps, 2001, Appendix C).

On April 2, 2001, the USFWS concurred with the Corps findings that the proposed project may affect, but is not likely to adversely affect the bald eagle (USFWS, 2001; Appendix C). No other threatened or endangered species were identified as occurring in the project vicinity, and therefore would not be affected.

3.3.2.2 Alternative B - No Action

No actions would be undertaken and the existing level of activity would continue unchanged. Therefore, no impacts to vegetation communities and associated wildlife, wetlands, or threatened or endangered species would occur.

3.3.3 Conservation Measures

Conservation and protection measures shall be implemented to minimize disturbance to the existing vegetation communities; these measures will also serve to protect wildlife habitats and reduce disturbances. These include:

- Locate construction staging and laydown areas in either unvegetated or previously landscaped areas. Do not allow any removal of forest habitat for staging and laydown that is outside of the demolition site or areas requiring excavation. Show all construction staging and laydown areas on construction plans.

3.4 NOISE

3.4.1 Affected Environment

3.4.1.1 Noise Standards

Noise is defined as unwanted sound and can cause hearing loss, interference with human activities at home and work, and various injuries to people's health and well-being. Although hearing loss is the most clearly measurable health hazard, noise is linked to many other physiological and psychological problems. Community response to noise is generally not based on a single event but a series of events over the day and/or night. Factors found to affect the subjective assessment of the daily noise environment include the noise levels of individual events, the number of events per day, and the times of day at which the events occur (Departments of the Air Force, the Army Reserve, and the Navy 1978).

The Washington Administrative Code (WAC) and the City of Seattle Noise Ordinance (Section 25.08) contain a set of maximum permissible noise levels based on the land use of the noise source and the land use of the noise receptor. Both regulations are applicable for federal activities. With regard to the City's noise ordinance, the USAR properties are considered a "commercial" land use and the surrounding neighborhoods are considered "single family residential." The City ordinance limits noise from a commercial property, affecting a residential property to 57 decibels (dBA) during the day and 47 dBA at night. These noise levels may be exceeded for limited periods of time: 5 dBA for no more than 15 minutes in any hour, 10 dBA for no more than 5 minutes of any hour, or 15 dBA for no more than 1.5 minutes of any hour (Section 25.08.420).

City and State regulations contain similar exemptions to maximum permissible limits for certain activities. Construction noise between 7 a.m. and 10 p.m. weekdays is exempt from WDOE's noise regulation (DOA, 1994). City regulations include the same exemptions listed in the State regulation except construction activities for temporary reasons are not exempt (Section 25.08.425*)*. Demolition activities are allowed an extra 25 dBA above the normal maximum of 57 dBA (Section 25.08.425 A[1]). Portable powered equipment (chain saws, powered hand tools, etc.) used in temporary locations in support of construction activities are allowed to exceed the permissible noise levels by 20 dBA as measured on the neighboring property or at a distance of 50 feet from the equipment, whichever is greater. In all cases, no noise sources specifically exempted from a maximum permissible noise level shall be a public nuisance or public disturbance noise (City of Seattle, Chapter 25.08.510 and WAC 173-60-060).

3.4.1.2 Existing Conditions

The USAR properties are surrounded by a number of land uses that are sensitive to loud noises (i.e., noise sensitive receptors). Residential areas are located north and east from the proposed project area. Other sensitive areas include a bald eagle nesting site, and a section of the Discovery Park Loop Trail that passes close to the proposed project area.

Average daily noise levels (DNL) at various intersections in the vicinity of the USAR properties range from 57 to 66 dBA (Metro 1988). Noise levels outside the Discovery Park/USAR area are generally higher than those inside the park due to the larger number of vehicles using arterial

streets (Metro 1988).

3.4.2 Environmental Consequences

Noise impacts are related to the magnitude of noise levels generated by the construction activities during demolition and restoration and the proximity of noise-sensitive receptors to the noise.

3.4.2.1 Alternative A - Proposed Action

Noise impacts from construction activities would be short term and limited to daytime hours. Based on similar construction activities, peak construction noise emissions at 50 feet from the center of a construction site would be approximately 90 dBA (EPA 1978). Because construction would not occur at night, the average daily noise level (DNL) at 50 feet from the construction site would be between 75 and 85 dBA depending on the number of noise events per day above ambient levels. Sites in flat-lying areas with minimal trees experience construction noise attenuation at a rate of 6 dBA for each doubling of distance between the source and the receptor (EPA 1978).

Estimated DNLs or peak noise levels would not violate state or local noise standards. Peak construction noise levels at the surrounding residences would range between 60 and 69 dBA, which is below the 77 dBA limit identified in the Seattle's Noise Control Ordinance. Persons utilizing the Discovery Park Loop Trail could experience a peak noise level of 78 dBA, which is similar to average traffic noise.

The bald eagle nest may experience increased noise levels during construction at Area 500. Studies of construction impacts with noise levels of up to 87 dBA with peaks of 135 dBA have been recorded at eagle nests with no adverse effects (Corps, 2001, Appendix C).

3.4.2.2 Alternative B - No Action

Under the No Action Alternative, no impacts related to noise construction would occur. Noise impacts would be the same as existing conditions as described above in Section 3.4.1.

3.4.3 Conservation Measures

The USAR, in cooperation with the Seattle Department of Parks and Recreation (DoPaR), will install a sign on the Loop Trail during construction informing park users of the project, the temporary impacts (including anticipated noise levels) scheduled times of construction activities, and a scheduled date for project completion.

3.5 LAND USE

This section provides a summary of the affected environment and environmental consequences associated with land uses in and adjacent to the USAR properties. It includes a discussion of land use patterns and applicable plans and policies.

3.5.1 Affected Environment

Land Use Patterns

Area 500 is situated on 11.92 acres of the Fort Lawton USAR Base in T25N, R2E, Sections 10 &

15. Area 500 is also contained within the boundaries of Discovery Park, a park owned and operated by the City of Seattle. In the 1940's, Area 500 was constructed during World War II with 29 buildings that served as barracks for enlisted personnel. Today, only 25 buildings remain. It has been the desire of several interested groups, the City of Seattle, and the USAR to transfer Area 500 to the City of Seattle for incorporation into Discovery Park.

Discovery Park, at 534 acres, is Seattle's largest park and is maintained as an urban forest and sanctuary for wildlife. Recreation activities are passive in nature (hiking, birdwatching, beach exploration). Additional facilities within the Discovery Park area include the Discovery Park Visitor's Center, excessed military facilities which are now part of Discovery Park, three areas of existing Navy housing, the Daybreak Star Indian Cultural Center, King County's Metro Sewage Treatment Plant, and a FAA communications tower.

Plans and Policies

The City of Seattle's Comprehensive Plan (City of Seattle 1994) is the primary document providing goals and policies related to land use. This document also describes where, how, and under what circumstances growth should occur within the next 20 years. The plan's primary intent is to concentrate growth in "Urban Villages" and "Urban Centers" and thereby promote greater pedestrian and transit use, protect natural amenities, and reinforce the City's existing development pattern.

The USAR properties have been designated as Low Density on the City's future land use map. Comprehensive Plan goals and policies allow for limited amounts of development outside urban areas (City of Seattle 1994).

Land use designations bordering Fort Lawton include Public Open Space to the west (Discovery Park) and High Density single-family residential to the north and east.

The USAR properties and Discovery Park are zoned Single Family Residential RS-7200 (6 dwelling units per acre). The area east of 36th Avenue West, is zoned Single Family Residential RS-5000 (8.7 dwelling units per acre). The City of Seattle does not have special zoning designations for park or institutional land uses.

3.5.2 Environmental Consequences

3.5.2.1 Alternative A - Proposed Action

Land use patterns associated with the demolition and restoration would not change in the short-term. However, upon completion of the restoration and transfer or ownership, the City of Seattle would likely allow access to Area 500 in its relationship to Discovery Park. There is no indication that any significant changes in land use patterns would occur from this action other than moderate occupancy of Area 500, where none currently exists.

3.5.2.2 Alternative B - No Action

No impacts would occur under the No Action Alternative. Land use condition would remain the same as described above in Section 3.5.1.

3.5.3 Conservation Measures

As no negative impacts to land use would result from implementation of either Alternative A or B, no conservation measures are recommended or proposed.

3.6 PARKS AND RECREATION

3.6.1 Affected Environment

Area 500 is completely surrounded by Discovery Park. Discovery Park encompasses approximately 534 acres and is a major recreational asset for the Magnolia community, the City of Seattle, and western Washington State. According to Seattle's Department of Parks and Recreation, approximately 380,000 people visited the park in 1993 (DoPaR 1994a).

Recreation activities at Discovery Park include picnicking, hiking, jogging, cycling, and bird watching. Discovery Park is home to over 230 species of birds and is rated as one of the best places in the city for bird watching, particularly between September and May (DoPaR 1994a). There is also a range of child, adult, and senior educational programs offered throughout the year. The forested areas throughout Discovery Park are used extensively for educational park programs and specifically for forest-related walks.

Recreation facilities include a new visitor's center, education classrooms, picnic tables, and a playground. On the northwest border of Discovery Park is the Daybreak Star Arts and Cultural Center, which includes a Native American art gallery and ongoing cultural programs and events.

The park has over seven miles of hiking trails. The 2.8-mile Loop Trail circles the park passing through several habitats including forests, meadows, and sand dunes. Approximately 263,000 people hiked or jogged on the Loop Trail in 1993 (DoPaR 1994). The peak use period in 1993 was May, with 54,000 visitors. This dropped to as low as 5,600 visitors during the month of December.

3.6.2 Environmental Consequences

3.6.2.1 Alternative A - Proposed Action

Short-term construction of the proposed project may have a limited effect on recreation activities in Discovery Park, particularly along the Loop Trail.

In the short term, noise and construction activities would likely disrupt the natural setting and character at the point along the Loop Trail. People using the Loop Trail would hear and likely see the construction. This disruption, however, would be relatively brief for any one person walking or jogging along the trail. Disruption for those persons involved in education and interpretive programs coming to this area during construction would be greater as they would tend to stop along the trail.

While construction of the proposed project would affect the recreational experience in the immediate area, it is primarily short term in nature and is not considered to be significant. Furthermore, this type of disruption in the park's natural character is typical of other parts of the park where trails and open space areas are surrounded by other human-made elements.

These include the sewage treatment plant, the Discovery Park visitor's center, the Fort Lawton Historic District buildings, the Navy housing area, roads, and adjacent residential neighborhoods. In general, these elements are often common elements of urban parks.

In the long term, relinquishing ownership of Area 500 to the City of Seattle for incorporation into Discovery Park will provide additional recreation opportunities for park visitors. The demolition and restoration of Area 500 will provide additional open space to park visitors.

3.6.2.2 Alternative B - No Action

No impacts would occur under the No Action Alternative. Park and recreation conditions would remain the same as those described above in Section 3.6.1.

3.6.3 Conservation Measures

The USAR will cooperate with Discovery Park officials to reduce temporary effects of construction upon users of the Loop Trail. The USAR will install appropriate signage to inform users of the Loop Trail of the construction schedule if requested to do so by park officials.

3.7 VISUAL RESOURCES

3.7.1 Affected Environment

Area 500 is completely surrounded by Discovery Park. Due to its isolated location, Area 500 is not a visually prominent feature.

3.7.2 Environmental Consequences

3.7.2.1 Alternative A - Proposed Action

In the short-term, visual disturbances are likely to occur along the Loop Trail during demolition and restoration. Visual disturbances are similar to those discussed under Section 3.6.2.1.

3.7.2.2 Alternative B - No Action

No visual impacts would occur under the No Action Alternative. Conditions would remain the same as those described above in Section 3.7.1.

3.7.3 Conservation Measures

The USAR will cooperate with Discovery Park officials to reduce temporary effects of construction upon users of the Loop Trail. The USAR will install appropriate signage to inform users of the Loop Trail of the construction schedule if requested to do so by park officials.

3.8 CULTURAL RESOURCES

3.8.1 Historic Preservation Mandate/Affected Environment

The primary law affecting cultural resources is the National Historic Preservation Act (NHPA) of 1966 (16 USC § 470), as amended. NHPA requires Federal agency project proponents to identify any effects or impacts its actions may have on cultural resources listed in or eligible for listing in the National Register of Historic Places (NRHP). The project area contains cultural

resources associated with World War II (the standing structures of Area 500) and there exists the very remote possibility that intact historic and/or prehistoric archaeological deposits may be located within the project footprint.

3.8.1.1 Archeological Resources

The project vicinity has been occupied for over 4,200 years and was part of the aboriginal territory of the Duwamish Indians. The Duwamish engaged in diverse economic activities including fishing, gathering, and hunting (Lewarch and Bangs 1994). The uplands, which include the proposed site, were generally used for plant gathering and hunting and, hence, would not have been the site of intense localized activities or major settlements (Wilke and James 1984). Evidence of the Duwamish occupation of the area has been identified at several sites in the general area. However, no archaeological sites have been previously identified on the project site (Wilke and James 1984), Lewarch and Bangs 1994). Furthermore, in the early 1940's, Area 500 was cleared, tilled, and leveled to accommodate the buildings and utilities found there today. Coupled with low intensity prehistoric land use, this earth disturbance makes the possibility of discovery and disturbance of intact archeological resources during construction of the proposed project extremely unlikely.

3.8.1.2 Historic Resources

In 1884, the Army recommended a fort be built in Seattle. As a result, the Chamber of Commerce bought and presented 700 acres on Magnolia Bluff to the Army in 1898. After the land was cleared, the fort was assigned its permanent troops in the summer of 1901.

Fort Lawton never developed into a major military installation, and by 1908 construction ceased. In 1939, during the midst of the Depression, the Army offered to turn the property back to the City for one dollar. The City declined due to lack of maintenance funds. With the onset of World War II more than one million troops passed through the post on their way to the Pacific, and over 450 new buildings were built to accommodate them. Many of the over 450 buildings constructed at Fort Lawton during the war were temporary and designed to be built quickly with minimum standards of comfort. After the Korean War, Army activity at Fort Lawton declined and many of the WWII structures were demolished.

In 1964, the Army declared most of the Fort Lawton property surplus. Senator Henry Jackson sponsored the "Fort Lawton Bill." It passed Congress in 1970 allowing the federal government to give surplus land to states and cities for park and recreational purposes without cost. In 1972, over 500 acres of Fort Lawton's surplus lands were transferred to the City of Seattle. The next year the site was named Discovery Park in hopes that it would allow people, especially children, to "discover" nature.

The Fort Lawton Historic District (FLHD) listed in the NRHP is located approximately 500 feet (150 m) to the west of Area 500. This Historic District encompasses 25 residential and service buildings, including officers' quarters, which formed the core of the fort initially constructed in 1898. The Historic District was listed in the NRHP in 1978 and declared a City of Seattle Landmark District in 1988 (HRA 1995). The Historic District has visual integrity as a result of

the buildings' architecture, parade ground, and the surrounding environment, most of which is now undeveloped park land.

Through previous consultation, the State Office of Archeology and Historic Preservation (SOAHP) concurred that Area 500 is outside the boundaries of the FLHD (i.e., not a contributing element to the NRHP eligible district). Furthermore, the proposed site is not visible from within the FLHD.

The Area 500 contains nine different building types and a remaining total of 25 buildings. All the buildings save two were constructed in 1942 as temporary barracks (Series 700 and Series 800 structures) and for storage/maintenance purposes (Garner 1993; Wasch et al. 1993; Department of the Army 1976). Building 555, constructed in 1959, is a single-story concrete block structure and was used as a classroom facility. Building 575 (ex-603) is a one-story concrete-block arms vault built in 1974. All of the buildings are now unused. Most of the buildings at the 500 Area are in a state of disrepair and, other than representing the World War II expansion of Fort Lawton for troop billeting and processing, have no apparent historical value (Department of the Army 1976).

3.8.2 Environmental Consequences

3.8.2.1 Alternative A - Proposed Action

Due to low intensity prehistoric, protohistoric, and historic land use of the project area, previous construction and demolition activities at Area 500, and the nature of the Proposed Action, the possibility of discovery and disturbance of archeological resources during demolition is remote.

As to the barracks and other standing structures of Area 500, their demolition and disposal is mitigated by prior Department of Defense (DoD) historic preservation consultation and actions. In the Military Construction Authorization Bill of 1983 (MCAB) congress mandated the demolition of World War II-era temporary buildings on DoD installations. Before demolition could proceed, however, the historic significance of all affected buildings needed to be documented and assessed, as required by Section 106 of the NHPA. In 1986, DoD entered into a Programmatic Memorandum of Agreement (PMOA) with the National Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers to document the temporary buildings and to assess the significance of remaining buildings before their replacement as stipulated under the MCAB (Appendix D). In its role as the Tri-Services Cultural Resources Center, and with assistance from the Historic American Building Survey/Historic American Engineering Record (HABS/HAER), the U.S. Army Construction Engineering Research Laboratories (USACERL) conducted a study of surviving DoD temporary structures, in partial fulfillment of the requirements of the NHPA, Section 106.

The objectives of the study were to describe the principal types of temporary structures built during mobilization for World War II, document the approximate numbers and locations of such structures surviving on DoD installations, and provide a historical context to support assessment of this architecture’s historical significance by DoD (Garner 1993). With the exception of designated exceptional examples at selected sites across the country, which did not include any

structures at Fort Lawton, the PMOA cleared the way for demolition of structures such as those found within Area 500 and exempted such undertakings from further consideration under Section 106 (Stephen Mathison, OAHP, pers. comm..). Furthermore, when the 70th RSC undertook previous demolition of World War II-era Series 700 and 800 barracks in Area 500, the Washington State Historic Preservation Officer (SHPO) determined that such demolitions were exempt from further consideration under Section 106, including consultation with SHPO (Appendix D).

Nevertheless, as a courtesy, the Washington State Office of Archaeology and Historic Preservation (OAHP) was notified of the proposed demolition and concurred with the Army's determination that the project would not adversely impact historic properties eligible for listing in the NRHP (Appendix D).

3.8.2.2 Alternative B - No Action

Under the No Action Alternative, the Area 500 buildings would continue to lie vacant, potentially hastening their deterioration.

3.8.3 Conservation Measures

In the unlikely event that subsurface cultural deposits are encountered during earth disturbing activities associated with the project, the Corps, as a representative of the 70th RSC, will protect them in compliance with the NHPA. Procedures for such an archeological discovery include halting construction and immediate notification of the SHPO. The SHPO's consultation would identify any further conservation measures.

3.9 HAZARDOUS MATERIALS

3.9.1 Affected Environment

A number of hazardous material concerns have been identified at Area 500 (Hart Crowser, 2001). These include: (1) asbestos-containing building materials; (2) fluorescent lamps, light tubes and ballasts; (3) mercury thermostats; (4) petroleum-contaminated soils from past underground storage tanks (USTs) and above-ground storage tanks (ASTs); (5) oil/water separators, and (6) lead-based paint. A summary of their presence is described below.

Asbestos

An asbestos survey of Area 500 was conducted by AGI Technologies, Inc., in 1994. Materials identified as containing asbestos include the following: floor tiles, vinyl flooring in some buildings, fireproofing on the building exteriors, metal doors in some buildings, and insulation on one inside door frame.

Fluorescent Lamps, Light Tubes and Ballasts

Fluorescent lights were found throughout the Area 500 buildings. EPA and WDOE regulate the accumulation and disposal of hazardous waste electric lamps to include fluorescent. The hazardous constituent of concern in lamps is mercury, and polychlorinated biphenyls (PCBs) for light tubes and ballasts.

Mercury Thermostats
One or more mercury thermostats are present in each of the buildings in Area 500. Some thermostats have been removed previously by an environmental contractor, and according to the contract, they will be able to remove the remaining thermostats and dispose of them accordingly.

Petroleum-contaminated Soils from former USTs and ASTs
In 1990, Area 500 was found to contain 22 275-gallon and five 300-gallon USTs. All of the USTs were used to store fuel oil for the heating systems serving the buildings. Decommissioning and excavation of these USTs was initiated in July 1990. WDOE establishes standards for maximum allowable concentrations of contaminants for total petroleum hydrocarbon (TPH). The WDOE maximum concentration for heating oil cannot exceed 200 parts per million (ppm). Nineteen of the 27 excavations were found to exceed WDOE's standards. The contaminated soils were over-excavated to the point that no physical evidence of contamination remained, or further excavation would have affected the structural integrity of the nearby buildings. A field test kit (Hanby Colorimetric) was used to measure contamination left in the ground and 12 of the 19 contaminated sites were found to still contain TPH concentrations in excess of 200 ppm.

22 ASTs were installed to replace the excavated USTs; only 19 remain. There is a potential for soil contamination at these sites from past leaks or overfilling of these tanks.

Oil/Water Separators
Two oil/water separators were installed in the mid 1990s in the parking lot area. Both separators are enhanced gravity separation systems for the removal of oil and solids from stormwater prior to discharge to stormwater sewer lines.

Lead-based Paint
Lead-based paint was used on many of the buildings. Their current condition reveals extremely damaged exterior paint on many of the buildings and visible paint chips in the grass surround several of the buildings.

3.9.2 Environmental Consequences

3.9.2.1 Alternative A - Proposed Action
The hazardous material concerns at Area 500 (i.e., petroleum-contaminated soils, lead-based paint, asbestos, fluorescent lighting, oil/water separator, etc.) will be dealt with accordingly during demolition. With the exception of lead-based paint on the building exteriors, hazardous building materials will be quantified and removed prior to demolition activities. It will not be necessary to remove lead-based paint prior to building demolition. However, demolition debris from the buildings will be tested for lead by the toxicity characteristic leaching procedures prior to disposal. Petroleum-contaminated soils will be excavated and disposed of accordingly. Sampling will be performed after the demolition to ensure that any contamination above action levels has been remediated in coordination with the appropriate regulatory authority prior to the conveyance of Area 500 to the City of Seattle. A Finding of Suitability to Transfer (FOST) will be prepared by the USAR in accordance with CERCLA prior to the conveyance of the property

to ensure that all removal or remedial actions necessary to protect human health and the environment have taken place.

3.9.2.2 Alternative B - No Action

Under the No Action Alternative, the USAR would continue to retain ownership of Area 500. It is likely that further action would be needed and potential improvements necessary to reduce the threat of human exposure to hazardous materials.

3.9.3 Conservation Measures

On-site use of construction equipment, use of chemical products, and wastes generated during construction will comply with all federal, state, and local regulations relating to protecting the environment from hazardous materials and containing spills.

3.10 ENVIRONMENTAL JUSTICE

Executive Order 12898 requires all federal agencies to seek to achieve environmental justice by "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." The EPA's Office of Solid Waste and Emergency Response (OSWER) is the agency responsible for coordinating the EPA's environmental justice programs. Generally, the environmental justice assessment effort seeks to identify any minority or low-income communities affected by a proposed action, the health and safety risks associated with a proposed action, and the availability of information to affected communities regarding a proposed action and its potential effects.

3.10.1 Affected Environment

The USAR properties are located in the Queen Anne/Magnolia sub-area in the City of Seattle. They are not located near any predominantly minority or low-income communities. This sub-area is primarily residential, but also contains industrial land stretching from Salmon Bay to Elliot Bay to the South. Table 3.10-1 summarizes the demographics of the Queen Anne/Magnolia sub-area, compared with King County and the nation.

Table 3.10-1: Population Number and Percentage Race/Ethnicity for Project Vicinity, King County, and the United States

	Queen Anne/ Magnolia		King County		United States	
Race/Ethnicity	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
White	4,861	90.5%	1,278,532	84.5%	199,686,070	80.3%
Black	45	0.8%	76,289	5.1%	29,986,060	12.1%
Native American	44	0.8%	17,305	1.1%	1,959,234	0.8%
Asian/Pacific Islander	396	7.4%	118,784	7.9%	7,273,662	2.9%
Hispanic (any race)	141	2.6%	44,337	2.9%	22,354,059	9.0%
Other	28	0.5%	16,409	1.1%	9,804,847	3.9%
Total	5,374	100.0%	1,507,319	100.0%	248,709,873	100.0%

Source: U.S. Bureau of the Census 1992

Populations of the Queen Anne/Magnolia area are predominantly white (90%), being a higher percentage of white residents than King County as a whole (84%). The principal minority population in the area is Asian/Pacific Islander (7.4%), being a similar percentage of Asian/Pacific Islanders for King County (7.9%) but higher than the state as a whole (2.9%). In general, the area does not represent a large minority population.

The 1993 median household income in the Queen Anne/Magnolia area was $60,233, or approximately 109 percent of the median household income for King County ($55,019) as a whole (PSRC 1996). Therefore, the area does not represent a specific low-income population.

More than 44,000 Native Americans live within a one-hour drive of Discovery Park. Nearly 19,000 live in Seattle and King County, making the metropolitan Seattle area the seventh largest urban center for Native American people in the United States. The Native American community in Seattle is composed of people who are members of more than 100 tribes from across the nation; 25 percent are Alaska Natives, and the other 75 percent belong mostly to tribes in Washington, Oregon, Idaho, and Montana.

3.10.2 Environmental Consequences

3.12.2.1 Alternative A - Proposed Action

The Proposed Action would not have any significant adverse impact on minority or low-income communities. The Proposed Action is not located near any predominantly minority or low-income communities. The Queen Anne/Magnolia area exhibits a lower than average percentage of minority populations and a higher than average median income when compared with King County as a whole.

3.12.2.2 Alternative B - No Action Alternative

Under the No Action Alternative, Area 500 would continue lay vacant. No new construction would be undertaken, and there would be no adverse impacts on minority or low-income communities.

3.10.3 Conservation Measures

None

4.0 CUMULATIVE IMPACTS

No cumulative impacts were identified with the demolition, restoration, or transfer of ownership of Area 500.

5.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

No federal resources are anticipated to be irreversibly and irretrievably committed to the project until the Environmental Assessment is finalized and the Finding of No Significant Impact has been signed. Upon approval, federal funds will be obligated to the demolition, restoration, and transfer of Area 500.

6.0 CONCLUSION

Based on the above analysis, this project is not considered a major federal action significantly affecting the quality of the human or natural environment, and therefore does not require preparation of an environmental impact statement.

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APPENDICES

A. List of preparers/reviewers, List of agencies consulted

B. Maps and Photographs

C. Biological Assessment, USFWS Concurrence Letter

D. Cultural Resources