

Final Environmental Impact Statement

for the

Disposal and Reuse of Naval Air Station Barbers Point, Hawaii



Department of the Navy

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FINAL
ENVIRONMENTAL IMPACT STATEMENT FOR THE DISPOSAL AND REUSE
OF NAVAL AIR STATION BARBERS POINT, HAWAII

Lead Agency: U.S. Department of the Navy
Cooperating Agency: U.S. Department of Transportation, Federal Aviation Administration
Proposed Action: Disposal and Reuse of Naval Air Station Barbers Point

This Final Environmental Impact Statement (FEIS) evaluates the potential environmental impacts of the proposed disposal and subsequent reuse of Naval Air Station Barbers Point (NASBP), Hawaii. It incorporates comments received during the 45-day public comment period of the Draft EIS.

The FEIS is being prepared pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §4332; Navy guidelines, OPNAVINST 5090.1B; and the 1990 Defense Base Closure and Realignment Act (DBCRA), 10 U.S.C. §2687 note, as amended by the 1993 Base Realignment and Closure (BRAC) process. In addition to serving Navy requirements, the FEIS provides the information necessary for the Federal Aviation Administration (FAA) to prepare decision documents recommending terms and conditions for airport conveyance. It also provides the environmental review required to obtain FAA approval of the Airport Layout Plan (ALP) for airway and supporting facilities at NASBP.

This FEIS evaluates four reuse alternatives, each emphasizing various types of development, e.g., residential, light industrial, recreation, commercial. Three of the alternatives, including the plan approved by the Barbers Point Naval Air Station Redevelopment Commission (the LRA) and signed by the Governor, include a general aviation reliever airport. A fifth alternative, No Action, assumes the existing airport would not be used and, along with other surplus land (land not being retained by Navy or other federal agencies), would be retained by Navy in caretaker status. NASBP will close on July 2, 1999.

No significant environmental impacts, with the exception of infrequent (several times per year) and severe traffic conditions resulting from major events at special attractions (e.g., motor sports raceway complex), are anticipated from the proposed action. Most of the identified mitigation would be the responsibility of the entity taking ownership of or developing the surplus property. Appropriate treatment of significant cultural resources will be ensured by deed covenants as a result of Navy's consultation with the State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act. Implementation of these protective covenants reduces the impacts of disposal and reuse to a not significant level.

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GLOSSARY

AAQS	Ambient Air Quality Standards
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing materials
ACOE	Army Corps of Engineers
ADT	Average Daily Trips
AICUZ	Air Installations Compatible Use Zones
ALP	Airport Layout Plan
AST	aboveground storage tank
ATCT	Airport Traffic Control Tower
BMPs	Best Management Practices
BRAC	Base Realignment and Closure
BWS	Board of Water Supply
C&C	City & County
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERFA	Community Environmental Response Facilitation Act
C.F.R.	Code of Federal Regulations
cfs	cubic feet per second
CIP	Campbell Industrial Park
CLEAN	Campbell Local Emergency Action Network
cm	centimeter
CO	carbon monoxide
Commission	Barbers Point Redevelopment Commission
CWA	Clean Water Act
CWRM	Commission on Water Resources Management
yd ³	cubic yards
CZM	Coastal Zone Management
dB	decibels
dBA	decibels (A-weighted scale)
DBCRA	Defense Base Closure and Realignment Act
DBEDT	Department of Business, Economic Development, and Tourism
DEIS	Draft Environmental Impact Statement
DES	Department of Environmental Services
DHHL	Department of Hawaiian Home Lands
DLNR	Department of Land and Natural Resources
DNL	day-night average sound level
DOD	U.S. Department of Defense
DOH	State Department of Health
DOI	U.S. Department of Interior
DOT	State Department of Transportation
DPW	C&C Department of Public Works
DTS	Department of Transportation Services
EBS	Environmental Baseline Survey
EIS	Environmental Impact Statement
EMI	electromagnetic interference

EMR	electromagnetic radiation
EPA	Environmental Protection Agency
ERPG	Emergency Response Planning Guide
ESA	Endangered Species Act
ESQD	Explosive Safety Quantity Distance
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FEIS	Final EIS
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FOSL	Finding of Suitability to Lease
FOST	Finding of Suitability to Transfer
GPD	gallons per day
gpad	gallons per acre per day
HAR	Hawaii Administrative Rules
H ₂ S	hydrogen sulfide
HECO	Hawaiian Electric Company
HHA	Hawaii Housing Authority
HHLRA	Hawaiian Home Lands Recovery Act
HIA	Honolulu International Airport
HPTA	Honolulu Public Transit Authority
HRS	Hawaii Revised Statutes
HUD	U.S. Department of Housing and Urban Development
INM	Integrated Noise Model
IRP	Installation Restoration Program
km	kilometers
KV	kilovolt
LBP	lead-based paint
Leq	equivalent sound level
LOS	Level of Service
LOTMA	Leeward Oahu Transportation Management Association
LRA	Local Redevelopment Authority
m	meters
m ³	cubic meters
m ³ /d	cubic meters per day
m ³ /ha/d	cubic meters per hectare per day
m/sec	meters per second
m ³ /sec	cubic meters per second
MGD	million gallons per day
mg/l	milligrams per liter
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
mph	miles per hour
MSL	mean sea level
MSW	municipal solid waste
MVA	megavolt-amps
MW	megawatts
NAAQS	National Ambient Air Quality Standards
NASBP	Naval Air Station Barbers Point

NAVFACENGCOM	Naval Facilities Engineering Command
Navy PWC	Navy Public Works Center Pearl Harbor
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRMP	Natural Resources Management Plan
O ₃	ozone
OEQC	Office of Environmental Quality Control
OMPO	Oahu Metropolitan Planning Organization
OTS	Oahu Transit Services
PACNAVFACENGCOM	Pacific Division Naval Facilities Engineering Command
Pb	lead
PM-10	particulate matter less than 10 microns in diameter
POI	Point of Interest
ppm	parts per million
PSD	Prevention of Significant Deterioration
PUC	Public Utilities Commission
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
ROI	Regions of Influence
ROFA	runway object free area
RPZ	runway protection zone
RSA	runway safety area
SARA	Superfund Amendments and Reauthorization Act
SDWA	Safe Drinking Water Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SPA	State-Preferred Alternative
TPD	tons per day
TSCA	Toxic Substance Control Act
UIC	Underground Injection Control
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
USN	U.S. Navy
UST	underground storage tank
V/C	volume-to-capacity
VMT	vehicle miles traveled
WWTP	wastewater treatment plant
ZOM	zone of mixing

EXECUTIVE SUMMARY

This Final Environmental Impact Statement (FEIS) evaluates the potentially significant environmental impacts that may result from the proposed disposal and subsequent reuse of Naval Air Station Barbers Point (NASBP), Hawaii. It incorporates comments received during the 45-day public comment period of the Draft EIS (DEIS).

The FEIS is being prepared pursuant to Section 102 (2)(c) of the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §4332, as implemented by Council on Environmental Quality (CEQ) regulations, 40 C.F.R. Parts 1500-1508; Navy guidelines (OPNAVINST 5090.1B); and the 1990 Defense Base Closure and Realignment Act (DBCRA), 10 U.S.C. §2687 note, as amended by the 1993 Base Realignment and Closure (BRAC) process. It is also being prepared in accordance with FAA Orders, *Airport Environmental Handbook* (October 8, 1985) and *Policies and Procedures for Considering Environmental Impacts* (December 5, 1986), that implement the Airport and Airway Improvement Act of 1982, 49 U.S.C. §47101 et seq., and Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. §303.

The federal agencies responsible for the preparation of this FEIS include Navy as the lead federal agency and the Federal Aviation Administration (FAA) as a cooperating agency. Pursuant to CEQ §1501.6, the cooperating agency is defined as any other federal agency that has jurisdiction by law or special expertise with respect to any environmental issue, which should be addressed in the EIS. The FAA is a cooperating agency since it is responsible for the approval of the public benefit conveyance of surplus federal property for use as a civilian airport. This approval is required by the Surplus Property Act of 1944. The FAA must also approve an Airport Layout Plan that depicts the proposed action of conveying the surplus property to the State of Hawaii.

Purpose of Document

The purpose of the FEIS is to assist the Secretary of the Navy in determining the environmental impacts of the disposal and alternative scenarios for reuse of surplus properties at NASBP, as described by the Local Redevelopment Authority (LRA) in the local redevelopment plan. Because of the proposed use of existing airport facilities, the FEIS will satisfy the NEPA environmental review required to obtain FAA approval of the Airport Layout Plan (ALP) and provide information needed by FAA to prepare decision documents recommending terms and conditions for airport conveyance. Navy will use the FEIS analysis in its consideration of disposal options in its Record of Decision (ROD). The NEPA process must be completed before surplus property can be conveyed. Following property disposal, no additional NEPA review by Navy is anticipated.

This document also provides the decision-makers and interested public with information on the environmental consequences of future alternative reuses at NASBP, and on potential environmental impacts and mitigation to avoid or minimize adverse impacts.

Description of the Proposed Action

As a result of the 1993 Base Closure and Realignment Commission recommendations, which were approved by President Clinton and Congress, NASBP will be closed on July 2, 1999. NASBP consists of 3,833 acres (1,551.1 hectares) of land including 110 acres of non-contiguous area at

Kaula Island and Iroquois Point. Out of the 3,833 acres (1,551.1 hectares), approximately 1,238 acres (501.0 hectares) are being retained by Navy (including all of the non-contiguous area); approximately 1 acre (0.4 hectare) will be conveyed to the West Oahu Community Federal Credit Union; and approximately 457 acres (184.9 hectares) are being transferred to other federal agencies. Interagency transfers of the 457 acres (184.9 hectares) of base closure property are planned as follows.

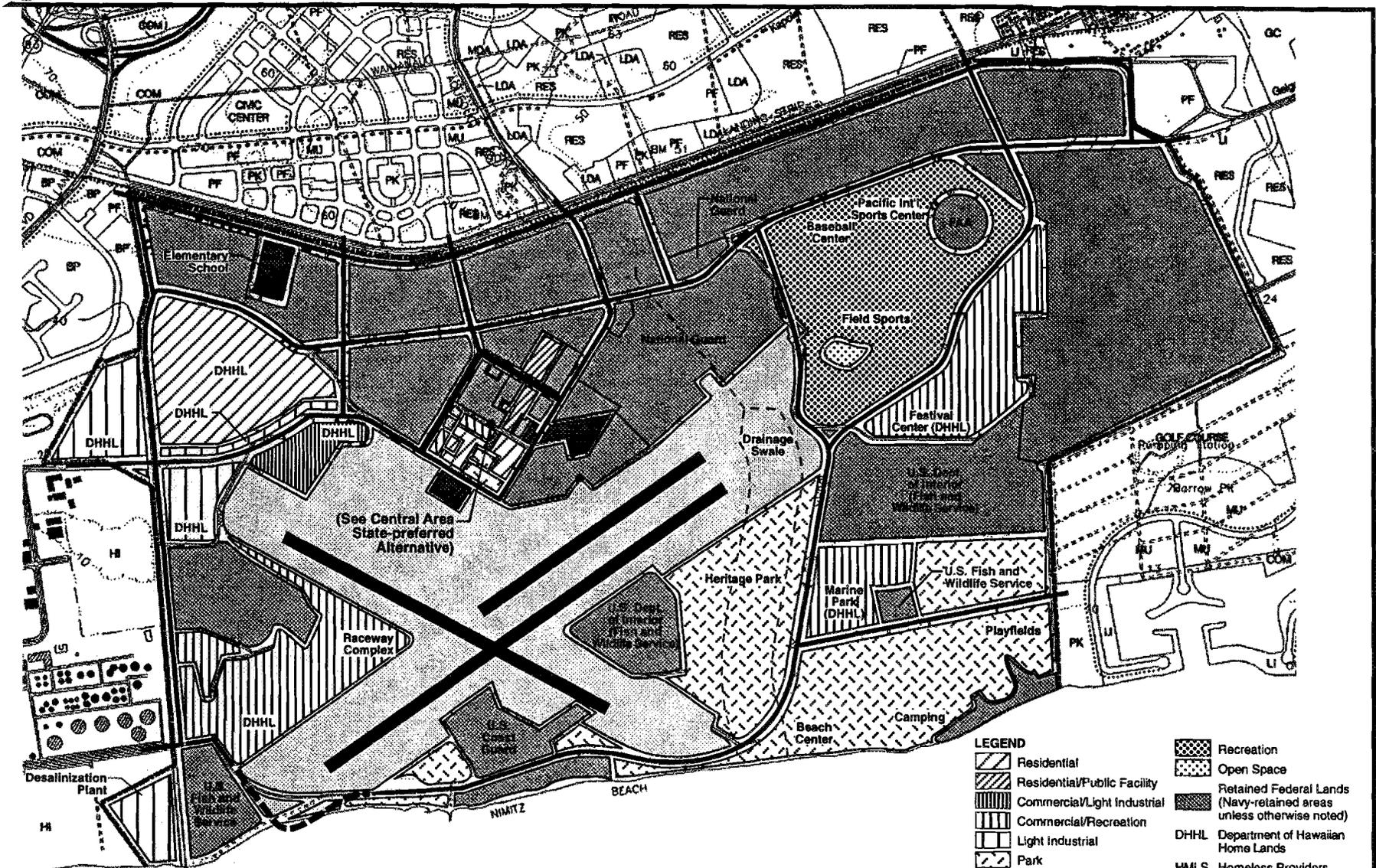
- Veterans Administration (6 acres [2.4 hectares])
- FAA (18 acres [7.3 hectares])
- U.S. Postal Service (1 acre [0.4 hectare])
- National Guard Bureau (149 acres [60.3 hectares])
- U.S. Fish and Wildlife Service (USFWS) (239 acres [96.7 hectares])
- U.S. Coast Guard (44 acres [17.8 hectares])

The remaining approximately 2,137 acres (864.8 hectares) of base closure property have been declared surplus and are the focus of this FEIS.

The proposed action is the disposal of approximately 2,137 acres (864.8 hectares) of surplus Navy properties in a manner consistent with the subsequent reuse and redevelopment of the property as identified in the *Naval Air Station Barbers Point, Community Redevelopment Plan* (Helber, Hastert & Fee, Planners, March 1997) and as amended by the *Naval Air Station Barbers Point, Community Redevelopment Plan, Amendment 1* (Helber, Hastert & Fee, Planners, December 1997). Property disposal and reuse will comply with the DBCRA of 1990, 10 U.S.C. §2687 note, as amended by the 1993 BRAC process; President Clinton's Five-Point Plan, "A Program to Revitalize Base Closure Communities" (July 2, 1993); the National Defense Authorization Act for Fiscal Year 1994, Pub. L. 103-160, Title XXIX, Subtitle A (1993); and Revitalizing Base Closure Communities and Community Assistance, 32 C.F.R. Parts 174 and 175. Surplus property can be disposed of by various conveyance authorities and include public benefit conveyances. It is proposed that a portion of the surplus property be conveyed under the Hawaiian Home Lands Recovery Act of 1995, 48 U.S.C. §§691-716, to settle long-standing land claims against the federal government.

In accordance with DBCRA of 1990, 10 U.S.C. §2687 note, the LRA—the Barbers Point Naval Air Station Redevelopment Commission—was established to prepare a local redevelopment plan that considers the reuse potential of existing facilities or systems, the needs of the community, alternative redevelopment scenarios, and development priorities. Findings of the LRA are documented in the *Naval Air Station Barbers Point, Community Redevelopment Plan* and *Naval Air Station Barbers Point, Community Redevelopment Plan, Amendment 1*. These documents contain the redevelopment plan approved by the LRA and the Governor, herein referred to as the State-preferred alternative, and three other alternatives that are described and evaluated in this FEIS.

The State-preferred alternative and other reuse alternatives are shown in Figures ES-1 through ES-4. These maps show the proposed land uses for the surplus property to be disposed; areas to be retained by Navy and other federal agencies are also indicated. New roadways shown for the various alternatives are conceptual and alignments would be changed as required. (For example, if the Small Airport alternative is implemented, the roadway through the FAA parcel would have to be realigned.) In the descriptions given below, the sizes of the designated land use areas are only approximate, based on the LRA's plan.



Sources: Helber Hastert & Fee Planners (March 1997 and December 1997); PACNAVFACENCOM, map of federal retention areas as of September 28, 1998.

LEGEND	
	Residential
	Residential/Public Facility
	Commercial/Light Industrial
	Commercial/Recreation
	Light industrial
	Park
	Public Facility
	Airport
	Recreation
	Open Space
	Retained Federal Lands (Navy-retained areas unless otherwise noted)
	DHHL Department of Hawaiian Home Lands
	HMLS Homeless Providers
	Major and Collector Roads
	Future Road

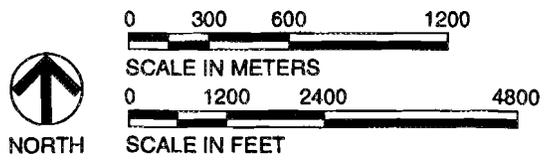
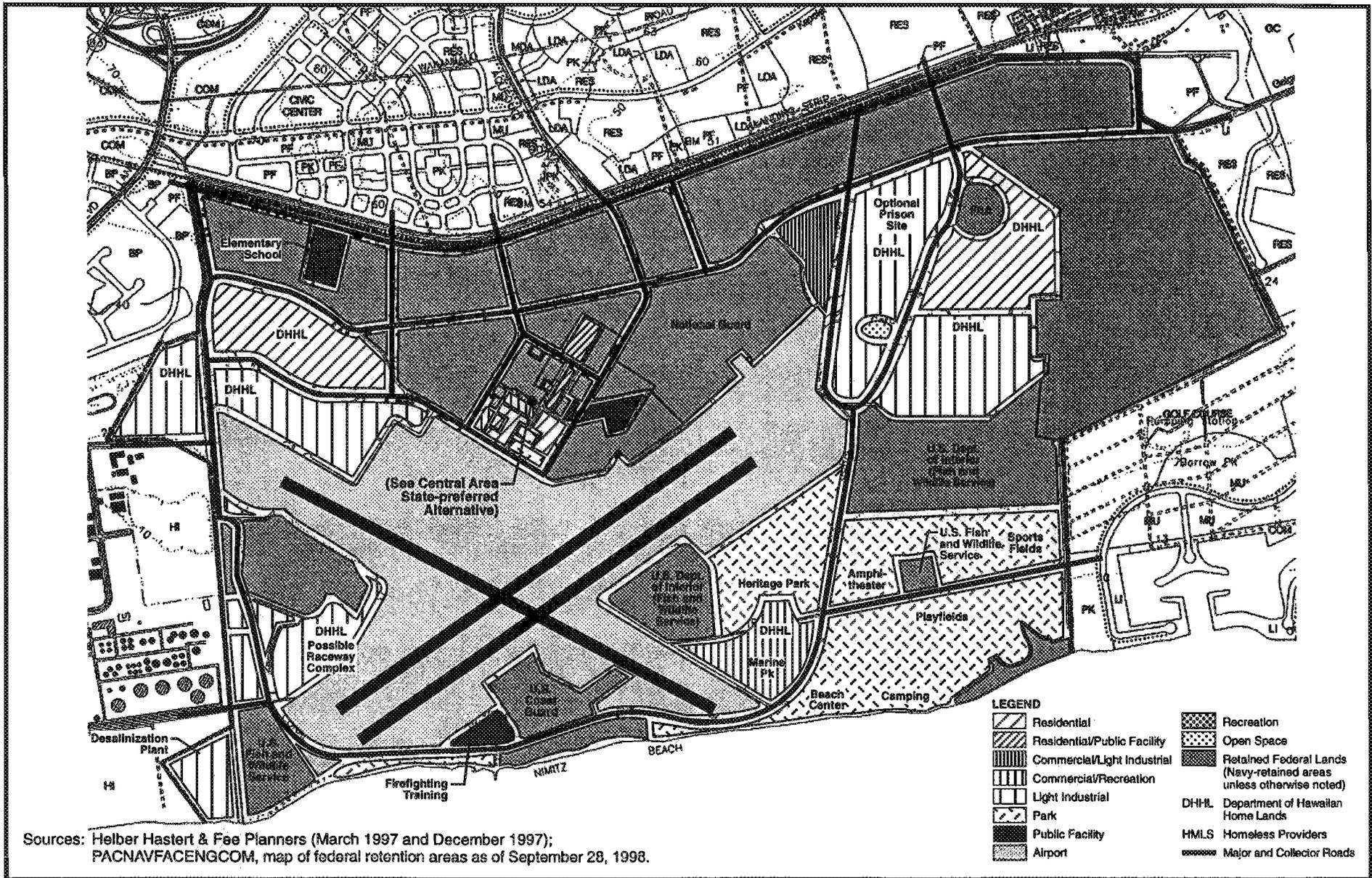
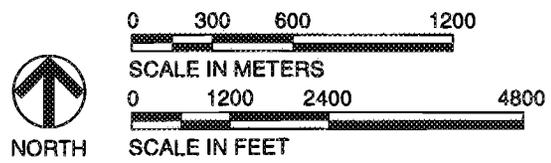


Figure ES-1
STATE-PREFERRED ALTERNATIVE
 EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii



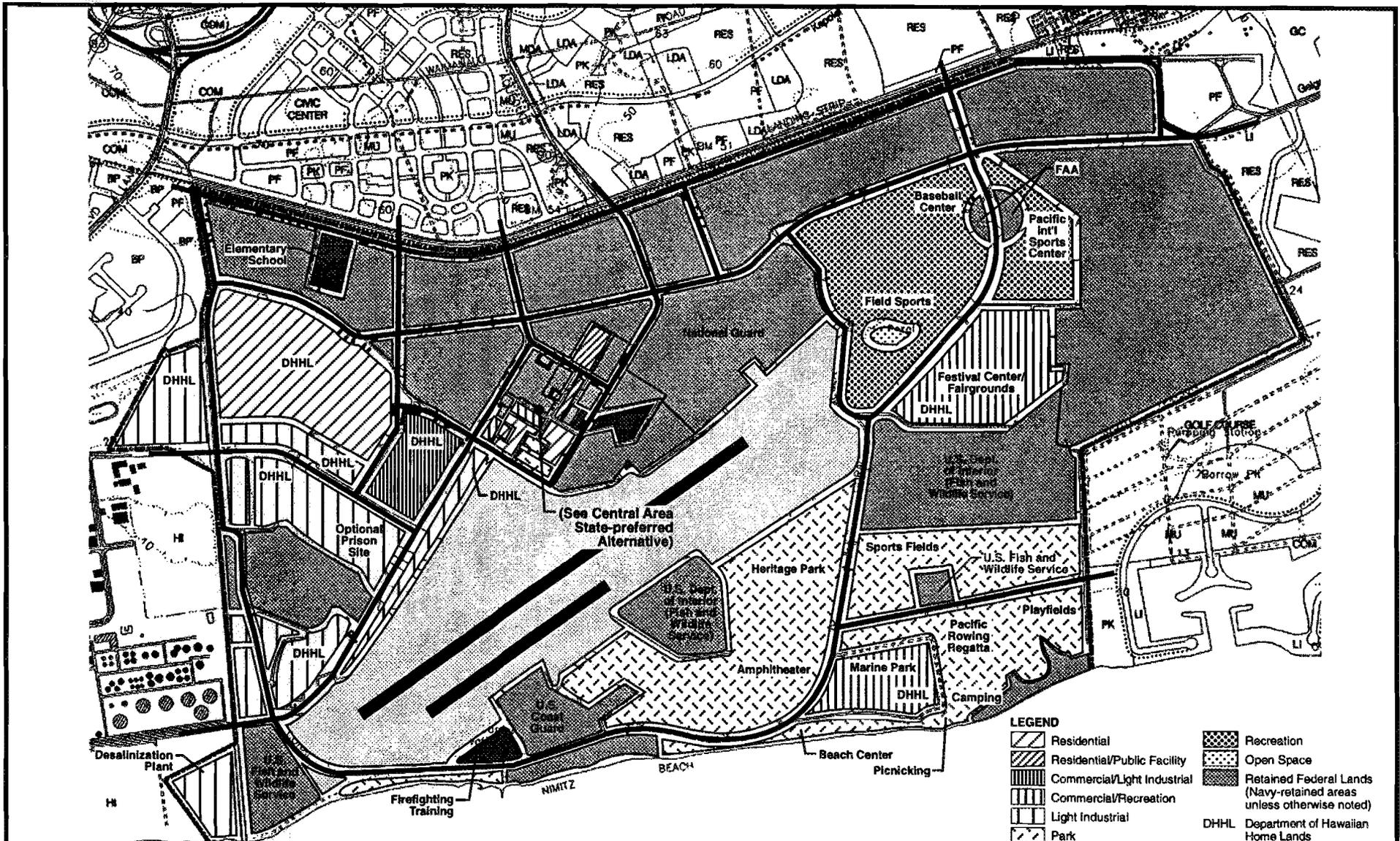
Sources: Helber Hastert & Fee Planners (March 1997 and December 1997);
 PACNAVFACENGCOM, map of federal retention areas as of September 28, 1998.

LEGEND			
	Residential		Recreation
	Residential/Public Facility		Open Space
	Commercial/Light Industrial		Retained Federal Lands (Navy-retained areas unless otherwise noted)
	Commercial/Recreation		DHHL Department of Hawaiian Home Lands
	Light Industrial		HMLS Homeless Providers
	Park		Major and Collector Roads
	Public Facility		
	Airport		



**Figure ES-2
 LARGE AIRPORT ALTERNATIVE**

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



Sources: Helber Hastert & Fee Planners (March 1997 and December 1997); PACNAVFACENCOM, map of federal retention areas as of September 28, 1998.

LEGEND	
	Residential
	Residential/Public Facility
	Commercial/Light Industrial
	Commercial/Recreation
	Light Industrial
	Park
	Public Facility
	Airport
	Recreation
	Open Space
	Retained Federal Lands (Navy-retained areas unless otherwise noted)
	DHHL Department of Hawaiian Home Lands
	HMLS Homeless Providers
	Major and Collector Roads

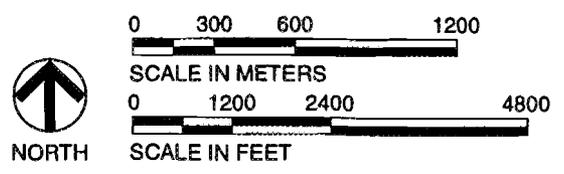


Figure ES-3
SMALL AIRPORT ALTERNATIVE

EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii

State-preferred Alternative (Navy-preferred Alternative). The State-preferred plan consists of a 709-acre (286.9-hectare) general aviation reliever airport for Honolulu International Airport (HIA), with two parallel runways and a crosswind runway. Large areas (totaling approximately 686 acres [277.6 hectares]) are planned for park and recreational uses. Approximately 515 acres (208.4 hectares) are planned for commercial/private recreation and light industrial uses; and 165 acres (66.8 hectares) for residential use, including 13 acres (5.3 hectares) designated for homeless providers. Remaining lands are for public facilities, roads, open space, and utilities. This alternative is also Navy's preferred alternative.

Large Airport Alternative. This alternative consists of a 968-acre (391.7-hectare) general aviation reliever airport with two parallel runways and a crosswind runway. Light industrial and commercial uses would occupy approximately 519 acres (210.0 hectares). Park and recreation activities are planned over 395 acres (159.9 hectares). Residential uses would occupy 220 acres (89.0 hectares) and include 13 acres (5.3 hectares) for homeless providers.

Small Airport Alternative. This alternative includes an airport, two parallel runways, and no crosswind runway. Approximately 708 acres (286.5 hectares) are planned for airport use. Park and recreation uses occupy the largest area (approximately 745 acres [301.5 hectares]) in this plan, followed by 489 acres (197.9 hectares) for light industrial/private recreation/commercial uses, and 160 acres (64.7 hectares) for residential use (including 13 acres [5.3 hectares] for homeless providers).

No Airport Alternative. This alternative eliminates any reuse of the existing airport, thus requiring U.S. Coast Guard relocation. South of the existing airport is an area (approximately 50 acres [20.2 hectares]) designated as "airport" over the existing U.S. Coast Guard facility. This area would be limited to helicopters for the Hawaii Army National Guard. The No Airport alternative focuses on the development of community- and tourist-related recreational activities. Approximately 965 acres (390.5 hectares) are designated for parks and recreation, 749 acres (303.1 hectares) for commercial/private recreational/light industrial uses, and 190 acres (76.8 hectares) for housing (including 13 acres [5.3 hectares] for homeless provider use). Remaining lands are for public facilities, roads, open space, and utilities.

No Action. In the No Action alternative, Navy would retain ownership of the surplus property in caretaker status. There would be no reuse of surplus property, thus requiring U.S. Coast Guard relocation.

Summary of Impacts and Mitigation

Potentially significant issues and impacts were identified in the scoping process and are evaluated in Chapter Four. Significant impacts were determined by considering the following: absolute change from existing conditions (baseline conditions that generally reflect the NASBP activity levels in 1993, just prior to the base closure decision), duration of change, extent (geographical or population affected) of change, and the relationship between the change and compliance with applicable federal, state, or local rules, ordinances, policies, or plans. With the mitigation measures identified in Chapter Four, no significant impacts are expected under all reuse alternatives except for traffic. Traffic impacts associated with major events held possibly several times per year at special attractions, e.g., the motor sports raceway complex, cannot be entirely mitigated.

In most cases, mitigation will be the responsibility of the LRA or the developer. For those parcels being conveyed through the U.S. Department of Interior (DOI), Navy will be responsible for informing the appropriate bureau within the U.S. DOI of its responsibility to consult under Section 7 of the federal Endangered Species Act of 1973. This Section 7 consultation should be initiated prior to land conveyance from U.S. DOI to the State of Hawaii and the C&C of Honolulu. Additionally, Navy is responsible for developing deed covenants with the State Historic Preservation Officer (SHPO) for those parcels with cultural resources. This action by Navy will ensure appropriate treatment of cultural resources affected by proposed reuse.

Findings of the EIS evaluation are summarized below:

Geology, Topography, and Soils. No significant impacts on soil stability would result from planned construction, as engineering designs would account for site soil conditions in all reuse alternatives. Moreover, NASBP is not susceptible to erosion since soils are shallow and highly permeable, and the topography is relatively level.

Groundwater. No significant impacts on groundwater are expected in any of the reuse alternatives. Groundwater beneath NASBP is brackish and not suitable for consumption or for irrigation without desalinization. Potential effects from airport or light industrial activities on groundwater would not be significant as long as operational controls such as providing adequate containment for chemical or fuel storage areas and designating well-contained areas for maintenance activities are utilized and adequately enforced.

Surface Water. No significant impacts on surface waters are expected in any of the reuse alternatives. The seasonal wetland located on the surplus property and adjacent receiving waters such as Ordy Pond (the only anchialine pond on NASBP, which is planned for transfer to USFWS), two coastal salt flats, and the ocean will not be significantly impacted in all reuse alternatives as long as Best Management Practices (BMPs) (control techniques such as use of silt curtains) are used when construction activities occur. Potential effects on water quality from light industrial activities would not be significant because of the existing laws and regulations concerning industrial or construction-related runoff.

Air Quality. No significant impacts on air quality would occur in any of the alternatives based on evaluations of stationary- and mobile-type (vehicular and aircraft) emission sources. No significant impacts from stationary sources would occur because of the existing regulatory requirements, such as the Clean Air Act (CAA), that control emissions relative to state and national ambient air quality standards (AAQS). While no significant impact from stationary sources are expected, alternatives were evaluated for their potential to emit air pollutants. Based on the assumption that commercial and light industrial uses provide the areas where stationary source emissions could exist, and that the potential for air emissions is a direct function of the area planned for these uses, the No Airport alternative has the greatest potential for pollutant emissions. This alternative also contains a power plant, which would pose specific air quality concerns. For all other reuse alternatives, the potential for stationary source emissions is about the same, or less than that anticipated in the No Airport alternative. No stationary source emissions would occur in the No Action alternative and would result in a decrease in emissions relative to baseline conditions.

No significant impacts on air quality from mobile sources are expected. No significant impacts from vehicular emissions are expected provided the traffic mitigation measures described in this FEIS are implemented. Based on the number vehicle trips associated with the alternatives, vehicular

emissions would be greatest in the Large Airport alternative and least in the State-preferred alternative. Aircraft emissions are considered to be insignificant because the projected number of annual aircraft operations are below the activity levels for which FAA criteria require consideration of an air quality analysis.

The proposed action, federal property disposal, is exempt from the federal conformity rules that implement the intent of Section 176(c) of the CAA, 42 U.S.C. §7401. In addition, these rules do not apply in attainment areas.

Noise. No significant impacts from noise would occur; rather, reductions in aircraft noise levels are to be expected and no mitigation is required. This determination was based on the findings that noise levels would be lower than baseline conditions, and that the 60 day-night average sound level (DNL) would not be exceeded in noise-sensitive areas such as residential areas, even when the cumulative impacts with Honolulu International Airport are considered.

Construction and other specific land use activities that generate noise would not significantly impact baseline noise levels because they must comply with the Hawaii Administrative Rules (HAR) Chapter 11-46, Community Noise Control. Moreover, the preparation of an environmental assessment or impact statement may be required, in accordance with Hawaii Revised Statutes (HRS) Chapter 343. These requirements will result in an evaluation of the potential noise levels for specific activities, e.g., motor sports raceway complex, and the identification of appropriate mitigation measures.

Visual Resources. No significant impacts on visual resources would occur due to the proposed reuse alternatives. Coastal parks and shoreline access are major components of all reuse alternatives. The development of shoreline parks will open up coastal areas that have been less accessible to the public for years. Conversely, these areas would remain somewhat restricted to the public under the No Action alternative. For the State-preferred and other airport alternatives, the existing airport runways will continue to allow uninterrupted views from inland areas to ocean and distant coastal landmarks.

Transportation. No significant impact on air or marine transportation would occur because the transportation of goods, services, and passengers into the area would not be affected. As for roads and traffic, no significant impacts are expected with the mitigation measures identified in Chapter Four, except during major events at special attractions. In the case of special attractions such as the motor sports raceway complex or major events held at the festival center, traffic impacts will be significant. Traffic and parking mitigation plans will be required to partially alleviate the severity of the impacts.

The existing number of average daily trips (ADT) is 27,300. With reuse, the greatest ADT generated would be from the Large Airport alternative, which is about 59,489 (including trips from retained areas). Except for the No Action alternative, the State-preferred alternative would generate the least number of trips, about 49,107. Accordingly, traffic impacts, as determined from vehicle delay estimates at specific intersections, are expected to be greatest in the Large Airport alternative. All other reuse alternatives would have similar but less traffic impacts than the Large Airport alternative.

Biological Resources. No significant impacts would be expected with appropriate mitigation measures resulting from consultations with USFWS and National Marine Fisheries Service (NMFS). Listed endangered or threatened species, along with migratory birds, provide the focus for the

assessment of impacts of biological resources. In the surplus area, one federally listed endangered plant species, 'akoko (*Chamaesyce skottsbergii* var. *skottsbergii*), has been identified. Biological resources of concern identified in non-surplus areas of NASBP or adjacent offshore waters are: two federally listed endangered plant species, 'akoko and *Achyranthes splendens* var. *rotundata* (no common name), one state- and federal-listed endangered bird species—Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*), various species of migratory birds, the state- and federal-listed threatened green sea turtle (*Chelonia mydas*), and the state- and federal-listed endangered humpback whale (*Megaptera novaeangliae*).

Best Management Practices for storm water runoff control would mitigate impacts to protected marine species in coastal waters. Migratory birds are protected under the Migratory Bird Treaty Act and state law. No alterations to water bodies are anticipated as part of this action, therefore consultation with USFWS in compliance with Section 2 of the Fish and Wildlife Coordination Act, 16 U.S.C. §662, is not required.

Letters documenting Navy's informal consultation with USFWS and NMFS and their concurrence that Navy's proposed conveyance of land is not likely to adversely affect the subject species are provided in Appendix A-8. Prior to any conveyance of land that may contain federally listed threatened or endangered species from U.S. DOI to the State of Hawaii and the C&C of Honolulu, consultation by the appropriate bureau within the U.S. DOI in accordance with federal endangered species laws and regulations (Section 7 of the Endangered Species Act of 1973) will be required.

Cultural Resources. No significant impacts on cultural resources would occur in all alternatives because transferring agencies will protect these resources with deed covenants. Within the surplus lands (reuse areas), cultural resources that are eligible for listing in the National Register of Historic Places have been identified in accordance with Section 106 of the National Historic Preservation Act (NHPA). Based on the supposition that lands designated for parks and recreation reuse will have the least impact on archaeological sites, the No Airport alternative may result in the least potential for adverse impacts; the alternative with the greatest potential for resulting in adverse impacts would be the Large Airport alternative. For historic structures, all non-residential land uses are assumed to be compatible with reuse or adaptive reuse of historic structures. Using this assumption, potential adverse impacts would be least under the State-preferred, Small Airport, and No Airport alternatives; potential impacts would be greatest for the Large Airport alternative. The State Historic Preservation Officer (SHPO) pursuant to Section 106 of NHPA has concurred with Navy's "no adverse effect" determination for the disposal of surplus lands with significant cultural resources provided the transfer includes deed covenants. Deed covenants will ensure appropriate treatment of these resources affected by proposed reuse; hence, no significant impacts on cultural resources would occur with disposal and reuse.

Public Health and Safety. No significant impacts on public health and safety would be expected in all alternatives. Existing areas of contamination, hazardous air pollutants from the reuse alternatives and neighboring Campbell Industrial Park (CIP), and the airport were considered.

No significant impacts from existing areas of contamination would occur because existing areas of contamination and points of interest (POIs) must be identified and remediated to levels protective of human health and the environment (or have a proven, effective remediation underway). Deed restrictions will address the level of cleanup performed (if required) to ensure that future development of these areas remain protective of human health and the environment.

Significant impact from CIP operations to proposed residential areas in the western portion of NASBP is highly unlikely. While this FEIS concludes that CIP would not present a significant risk of impact on proposed residential developments at NASBP, given the periodic complaints from residents in nearby communities and the potential risk of impact, Department of Health (DOH) encourages a conservative buffer between CIP and residential communities. Residential land uses in this section of NASBP are proposed in the State-preferred, Large Airport, and Small Airport alternatives. DOH's position is that the proposed housing area in the northwestern section of NASBP is an inappropriate land use for this area (DOH, December 20, 1996). The decision to develop residential units is left up to the discretion of the LRA and Department of Hawaiian Home Lands (DHHL).

No significant impacts on neighboring and proposed land uses at NASBP are expected with the required environmental permits and approvals, such as those required under RCRA, 42 U.S.C. §6901 *et seq.* The potential emissions of hazardous air pollutants and materials use associated with each of the reuse plans were evaluated by assuming that emissions and use would be greatest in areas designated for industrial/commercial use. Therefore, the potential for hazardous materials emissions and use decrease in the following order (from greatest to least): the No Airport alternative, the Large Airport alternative, the State-preferred alternative, and the Small Airport alternative.

No significant impacts from airport operations would be expected because the State DOT Airports Division's Airport Layout Plan (ALP) generally conforms to FAA design criteria except for the roadways within the Runway Safety Area (RSA) for Runway 4R. FAA design criteria ensure that adequate safety measures are incorporated with the proposed airport use to protect people and property on the ground. The ALP was conditionally approved (pending environmental review for the public benefit conveyance of airport property) by FAA on October 2, 1998. The approval included restrictions on the depiction and use of roadways located within the RSA for Runway 4R.

Executive Order 13045 (Protection of Children from Environmental Health Risks and Safety Risks). The analyses in this FEIS reveal that reuse of NASBP would not create environmental health and safety risks that may disproportionately affect children. In the highly unlikely event that a worst-case scenario could occur from operations at nearby CIP, there could be a disproportionate health and safety risk to children living in the reuse area. This issue should be considered and addressed by the LRA and DHHL as they continue through the planning process for proposed residential developments.

Public Services. No significant impacts on public services would occur with reuse. The following public services were assessed to determine the potential for adverse impacts from the reuse of NASBP surplus properties: education, police, fire, U.S. Coast Guard, and health care. Existing services are sufficient, in part due to the military counterparts providing these services to NASBP residents and employees. With the exception of educational services, no significant impacts would be associated with any of the reuse alternatives. In most of the reuse alternatives, the number of elementary school students could almost double; increases in intermediate and high school students would also occur but to a much lesser extent. The impact on elementary schools could be mitigated by increasing the capacity of Barbers Point Elementary School and/or redistricting or adding another elementary school in the region; this addition would also serve to mitigate cumulative impacts anticipated in the Ewa region.

Socioeconomic Environment. No significant impacts on the socioeconomic environment would occur with reuse. The development alternatives at NASBP will create new residential populations, employment, housing, and recreational opportunities. No significant changes are anticipated for employment, income, and the balance of revenues to costs. While increases in population, housing, and recreational opportunities would be significant, they are considered to be positive socioeconomic effects. Possible adverse impacts resulting from changes in demographics due to the planned housing developments for Hawaiian and homeless populations could be mitigated by establishing a committee of agencies and interested parties from various housing developments (i.e., military, Hawaiian Home Lands, and homeless) to assist in community communication and organization. Overall, socioeconomic impacts are considered positive. In particular, the reuse alternatives would help alleviate the island-wide and regional demands for parks and recreation areas.

Executive Order 12898 (Environmental Justice). This FEIS assesses human health, economic, social, and environmental effects of the various alternatives on minority and low-income populations. The analysis reveals that reuse of NASBP would have social and economic benefits for some minority and low-income populations due to new housing and public services developed specifically for them. Increased opportunities for jobs and recreation in the vicinity may also benefit these populations. The disposal and reuse would not have a disproportionately high and adverse impact on any minority or low income population.

Infrastructure. With the exception of drainage, no significant impacts on infrastructure would occur with reuse as infrastructure and resources would be developed to provide adequate services to the reuse areas.

Significant increases in storm water runoff would occur in the airport reuse alternatives due to an increase in impervious surface areas for new developments. The greatest runoff would occur in the Large Airport alternative, followed by the Small Airport alternative, and then the State-preferred alternative. No significant increase in storm water runoff would occur in the No Airport alternative. Mitigation could include construction of on-site storm water disposal facilities and/or a piped drainage system to convey storm water to the ocean. Regional drainage requires further discussions and is currently an unresolved issue.

Unresolved Issue

Regional Drainage. Although a preliminary regional drainage plan was prepared as part of the State-preferred alternative, further studies will be required to address off-site drainage issues. These studies should incorporate input from Navy and all affected parties.

CHAPTER ONE

PURPOSE AND NEED

1.1 OVERVIEW/FORMAT OF THE FEIS

This Final Environmental Impact Statement (FEIS) evaluates the potential environmental impacts that may result from the proposed disposal and subsequent reuse of Naval Air Station Barbers Point (NASBP), Hawaii. It incorporates comments received during the 45-day public comment period of the Draft EIS (DEIS).

The FEIS is being prepared pursuant to Section 102 (2)(c) of the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §4332, as implemented by the Council on Environmental Quality (CEQ) regulations, 40 C.F.R. Parts 1500-1508; Navy guidelines, OPNAVINST 5090.1B; and the 1990 Defense Base Closure and Realignment Act (DBCRA), 10 U.S.C. §2687 note, as amended by the 1993 Base Realignment and Closure (BRAC) process. It is also being prepared in accordance with FAA Orders, *Airport Environmental Handbook* (October 8, 1985) and *Policies and Procedures for Considering Environmental Impacts* (December 5, 1986), that implement the Airport and Airway Improvement Act of 1982, 49 U.S.C. §47101 *et seq.*, and Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. §303.

The federal agencies responsible for the preparation of this FEIS include Navy as the lead federal agency and the Federal Aviation Administration (FAA) as a cooperating agency. Pursuant to CEQ §1501.6, the cooperating agency is defined as any other federal agency that has jurisdiction by law or special expertise with respect to any environmental issue, which should be addressed in the EIS. The FAA is a cooperating agency since it is responsible for the approval of the public benefit conveyance of surplus federal property for use as a civilian airport. This approval is required by the Surplus Property Act of 1944. The FAA must also approve an Airport Layout Plan that depicts the proposed action of conveying the surplus property to the State of Hawaii.

As required by the above-referenced regulations, this FEIS identifies the proposed action, reasonable alternatives to the proposed action, potential environmental impacts, and reasonable measures that will avoid or minimize adverse impacts or enhance the quality of the human environment. Various types of impacts (e.g., direct, indirect, and cumulative) are analyzed and appropriate mitigation measures are identified. Direct impacts are those resulting from Navy's disposal of surplus (retained neither by Navy nor other federal agencies) properties. The majority of impacts analyzed in this FEIS are indirect impacts associated with the proposed reuse of the surplus properties. Cumulative impacts are those which may result from Navy's disposal of property, or the reuse of these properties, combined with the impacts of other non-related activities in the region of influence.

This FEIS is organized in the following manner:

- Chapter One—Purpose and Need
- Chapter Two—Alternatives Including the Proposed Action

- Chapter Three—Affected Environment
- Chapter Four—Environmental Consequences
- Chapter Five—Environmental Consequences—Other Considerations
- Chapter Six—List of Preparers
- Chapter Seven—Distribution of FEIS
- Chapter Eight—References

This chapter introduces the proposed action for which this FEIS is being developed and its location, the purpose and need for the proposed action, the base closure and realignment process, the public involvement component of NEPA, a summary of potential issues, concerns, and impacts, and permit requirements and related coordination.

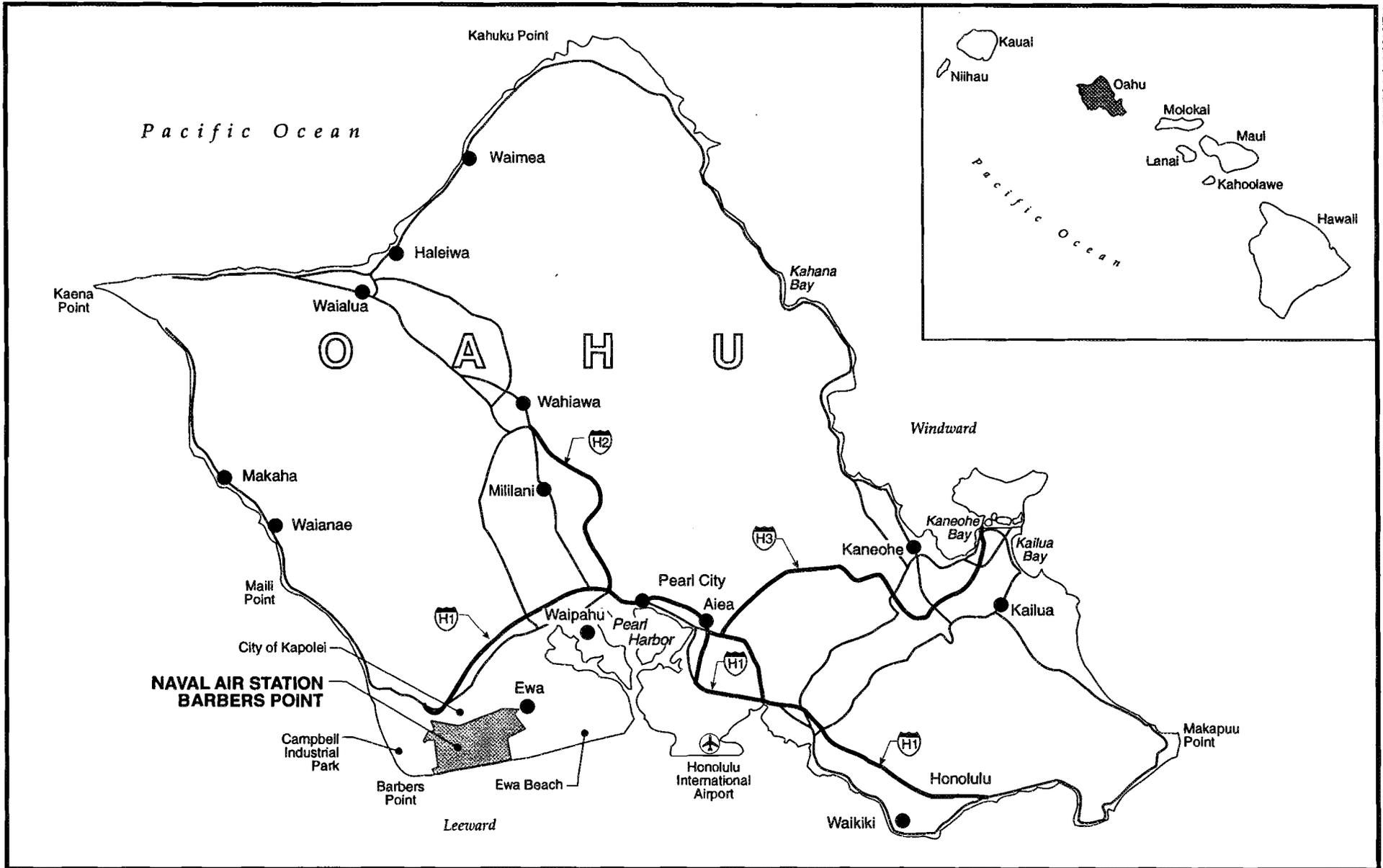
1.2 DESCRIPTION OF THE PROPOSED ACTION

The proposed action is the disposal of approximately 2,137 acres (864.8 hectares) of surplus Navy properties in a manner consistent with the subsequent reuse and redevelopment of the property as identified in the *Naval Air Station Barbers Point, Community Redevelopment Plan* of March 1997, and as amended by the *Naval Air Station Barbers Point, Community Redevelopment Plan, Amendment 1* of December 1997 (hereinafter referred to as the Redevelopment Plan). The Redevelopment Plan was prepared and adopted by the State's Local Redevelopment Authority (LRA), the Barbers Point NAS Redevelopment Commission. Property being retained by Navy and other federal agencies such as the U.S. Coast Guard and National Guard Bureau are not evaluated in this FEIS, except to address cumulative impacts.

For purposes of the NEPA analysis, direct environmental consequences or impacts are those associated with Navy disposal of surplus property and the No Action alternative; indirect impacts are associated with community reuse of surplus property. Navy's role and responsibility for disclosing indirect reuse-related environmental impacts is to address reasonably foreseeable impacts. However, property reuse will occur after it is conveyed from federal ownership and in support of local reuse actions. Implementation of mitigation measures for environmental impacts will be a local responsibility and not the responsibility of Navy.

1.3 LOCATION OF THE PROPOSED ACTION

NASBP is located on the island of Oahu in the state of Hawaii. It is approximately 16 miles (26 kilometers) west of downtown Honolulu and is located on the Ewa Plain, as shown in Figure 1.3-1. Campbell Industrial Park is located to the west, Ewa Beach residential communities and open space to the east, the ocean to the south, and the City of Kapolei to the north. Kapolei is known as the "second city," a name used to reflect the City and County of Honolulu's (C&C of Honolulu's) plans to provide sustainable services, businesses, and residential areas independent of the Honolulu urban core.



0 4 8
SCALE IN KILOMETERS

0 2.5 5
SCALE IN MILES



**Figure 1.3-1
LOCATION MAP**

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

NASBP comprises 3,722 acres (1,506.2 hectares) of land. Of this, approximately 2,137 acres (864.8 hectares) have been determined to be surplus and are the focus of this FEIS.

1.4 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed action is to reduce the military infrastructure and save operation and maintenance costs to match current force structure plans. Closure of NASBP based on the 1993 Defense Base Closure and Realignment Commission as follows:

Close Naval Air Station (NAS) Barbers Point and relocate its aircraft along with their dedicated personnel and equipment support to other naval air stations, including Marine Corps Air Station (MCAS) Kaneohe Bay, Hawaii, and NAS Whidbey Island, Washington. Disestablish the Naval Air Reserve Center. Retain the family housing as needed for multi-service use.

Under the 1995 Defense Base Closure and Realignment Commission, the last sentence in the 1993 recommendations was modified to state:

Retain the family housing as needed for multi-service use, including the following family housing support facilities: commissary facilities, Public Works Center compound with its sanitary landfill, and beach recreational areas, known as Nimitz Beach and White Plains Beach.

NASBP will be closed, effective July 2, 1999, under authority of the 1990 DBCRA. Expedient disposal of surplus property is necessary so that Navy does not continue to incur operational and maintenance costs associated with a closed base. The NEPA process, of which this FEIS is an integral part, must be completed before surplus property can be conveyed.

The purpose of the FEIS is to inform the Secretary of the Navy about the environmental effects of disposal of surplus properties at NASBP for subsequent reuse. This document provides the decision-makers and the public with information required to understand the future environmental consequences of reuse at NASBP. It will be used by the Secretary of the Navy to issue a Record of Decision (ROD).

Additional purposes of this FEIS are to (1) provide the information needed by the FAA to prepare decision documents recommending the terms and conditions for airport conveyance and (2) satisfy the FAA requirement for NEPA environmental review associated with FAA approval of the proposed Airport Layout Plan (ALP). The FEIS will be used by the Regional Administrator of the FAA to issue a separate ROD. The FEIS will also be used to assist the LRA in implementing a reuse plan and making future reuse decisions. Potential environmental impacts that could result from implementation of the redevelopment plan and reasonable alternatives are identified.

1.5 BASE REALIGNMENT AND CLOSURE PROCESS

Following base closure and completion of the NEPA requirements, Navy may transfer property to other federal agencies or convey property to state, local, or private entities. Federal law provides for a variety of conveyance methods to implement Navy property disposal decisions after

completion of the NEPA process. Property disposal and reuse will comply with the DBCRA of 1990, 10 U.S.C. §2687 note, as amended by the 1993 BRAC process; President Clinton's Five-Point Plan, "A Program to Revitalize Base Closure Communities" (July 2, 1993); the National Defense Authorization Act for Fiscal Year 1994, Pub. L. 103-160, Title XXIX, Subtitle A (1993); and Revitalizing Base Closure Communities and Community Assistance, 32 C.F.R. Parts 174 and 175.

The DBCRA of 1990 requires that the expedited General Services Administration (GSA) screening process be used to dispose of properties on bases to be closed. This process begins with the consideration of other DOD requests for properties. Property remaining after DOD requests are accommodated is declared "excess" and open for consideration by other federal agency use. Property remaining after the processing of federal agency requests is declared "surplus" and made available for transfer by public benefit conveyances to state and local government agencies for public purposes, including schools, parks, airports, and public health, negotiated sales to state and local government agencies, economic development conveyance to the LRA, and direct sales to the public. The DBCRA also allows the direct conveyance of lands underlying existing depository institutions at closing bases to that institution at fair market value.

NASBP includes 3,833 acres (1,551.1 hectares) of land including 110 acres of non-contiguous area: 108 acres (43.7 hectares) at Kaula Island and 2 acres (0.8 hectare) at Iroquois Point. From the 3,833 acres (1,551.1 hectares), Navy is retaining approximately 1,238 acres (501.0 hectares) at NASBP, all of the non-contiguous area, and approximately 1 acre (0.4 hectare) will be conveyed to the West Oahu Community Federal Credit Union in accordance with DBCRA. Navy is retaining areas for housing and support services to meet Navy's needs on Oahu. These areas include approximately 1,090 units in the family housing area, a biosolids treatment and disposal facility, maintenance area, Defense Reutilization and Marketing Office, Nimitz Beach, White Plains Beach, and the golf course. Functions remaining after base closure and located within the Navy-retained area include the following: Family Service Center, Armed Services YMCA, Navy/Marine Corps Relief Society, medical/dental clinic, commissary, preschool, chaplain, exchange, security, federal fire department, Moral Welfare and Recreation functions, family child care program, and Fleet Imaging Center Pacific.

Screening of federal applications for excess property at NASBP was conducted in late 1993 and early 1994 by the LRA. In accordance with the DBCRA of 1990, as amended by the Base Closure, Community Redevelopment and Homeless Assistance Act of 1994, a Determination of Surplus was made on September 26, 1995, and published in the *Federal Register* on October 11, 1995, and in local newspapers on October 16, 1995. A Notice of Surplus Determination was made on October 17, 1995,

In a joint State of Hawaii and C&C of Honolulu action, a Barbers Point Naval Air Station (BPNAS) Reuse Committee was initially established and officially recognized as the LRA in September 1993. It was formalized and redesignated as the BPNAS Redevelopment Commission by Executive Order of the Governor on December 2, 1994. Ultimately, the LRA was composed of 15 members, including five State department heads, three C&C of Honolulu department heads, three representatives of neighboring communities, and representatives of the Chamber of Commerce of Hawaii, small business, labor, and the homeless communities. All meetings of the LRA and their various task forces were open to the public. The LRA served as the advisory board to the Governor in preparing the reuse plan.

For the purpose of developing a reuse plan and obtaining applications for homeless use, the LRA requested that all eligible and interested parties submit notices of interest for property by November 15, 1995. Notices of interest were received from State and C&C of Honolulu agencies, private businesses, homeless service providers, and nonprofit organizations. Following the LRA's evaluation of the notices of interest, a land use plan for the surplus property was developed.

The LRA developed and considered various reuse scenarios. The focus of the scenarios or alternatives was on the reuse of the base for airport operations (large-scale, smaller-scale, and no airport). Numerous non-airport alternatives were also evaluated. The proposed land uses contained in the scenarios represented a wide range of alternatives. Eventually, three alternatives emerged and were presented at four public hearings at different locations to obtain island-wide input. A fourth alternative (a composite of two previously presented alternatives) was subsequently added. A public hearing was conducted on the composite scenario on September 17, 1996. The composite scenario was adopted by the LRA on October 8, 1996.

On December 23, 1996, the Governor approved the LRA's recommended plan, and it was forwarded to Navy and HUD on March 17, 1997. Since then, one amendment to the plan (primarily to revise boundaries and confirm homeless housing areas) has been approved by the Governor, following public hearings and deliberations by the LRA. The amended plan was adopted by the LRA on December 11, 1997, and approved by the Governor on December 17, 1997.

The redevelopment alternatives evaluated in the FEIS are primarily based on information presented in the *NAS Barbers Point Community Redevelopment Plan and Amendment* (Helber Hastert & Fee, Planners, March and December 1997). Minor changes have been made to the State-preferred alternative subsequent to the December 1997 amendment. Minor changes are reflected in the State-preferred alternative and the summary in Table 1.5-1.

1.5.1 Homeless Assistance Application

The LRA was required to consider homeless needs and develop a plan that balances the needs of the homeless and the community. The Hawaii Housing Authority (HHA) was delegated by the Office of Planning¹ (the lead agency for the NASBP Redevelopment Commission) to prepare a conceptual land use design for the Homeless Assistance Submission, in accordance with HUD's homeless program requirements. This report along with a request for surplus properties was submitted to HUD on March 1997. The following were requested: 13 acres (5.3 hectares) of land in the central ("downtown") area for homeless services, and 65 acres (26.3 hectares) of land outside of the area for self-help housing and low-income rental units. Subsequent discussions and correspondence between HHA and HUD indicate that the 65 acres (26.3 hectares) of property outside of the central area would be difficult to convey under the provisions of the Homeless Assistance Act. The reasons for this are the long time frame for development (10 years or more rather than the normal maximum of 3 years), the unprecedented magnitude of the request, and the intense concentration of low-income housing in one large area. The original request and subsequent correspondences are provided in Appendix A-1.

¹ Previously the Office of State Planning.

HUD has approved HHA's request for the 13 acres (5.3 hectares) in the central area. Under the State-preferred alternative, the 65-acre (26.3-hectare) parcel is anticipated to be conveyed under the HHLRA to the Department of Hawaiian Home Lands (DHHL).

**Table 1.5-1
Property Disposal Summary**

Description	Acres ^a	Hectares ^a
Property retained by Navy	1,238	501.0
Property planned for transfer to federal credit union	1	0.4
Property planned for transfer to other federal agencies	457	184.9
• Veterans Administration - programs to serve veterans, including homeless.	6	2.4
• FAA - retention of radio frequency interference zone around navigational equipment.	18	7.3
• U.S. Postal Service - site of post office to continue operations after closure.	1	0.4
• National Guard Bureau - Hawaii Army National Guard facilities, Youth Challenge School, and site for 16 CH-47 medium lift helicopters.	149	60.3
• U.S. Fish and Wildlife Service (USFWS) - refuge for conservation of plant and bird endangered species.	239	96.7
• U.S. Coast Guard - site of existing U.S. Coast Guard operations to continue after closure.	44	17.8
Property declared surplus	2,137	864.8
Totals	3,833	1,551.1

^a Areas are approximate; actual acreages are being developed through property surveys conducted by Navy.

1.6 PUBLIC INVOLVEMENT

1.6.1 Scoping

The scoping phase of this EIS, required by CEQ regulations, gave the public and affected federal, state, and local agencies an opportunity to provide input into the EIS. Specifically, this process was used to identify significant issues that will be discussed in detail in the EIS, along with those issues that should be addressed only briefly or appropriately dismissed. The findings from the scoping phase are summarized herein.

The objectives of the scoping phase, established in 40 C.F.R. §1501.7, are as follows: (1) identify the various actions and their alternatives and refine the list of alternatives on which the EIS will focus; (2) determine the scope of issues to be addressed; (3) identify significant issues related to the proposed action; (4) invite participation by affected agencies and individuals; (5) eliminate from detailed study matters that are not significant or are covered by prior reviews; (6) indicate any related environmental assessments being prepared that are not part of the EIS; and (7) indicate the relationship between EIS schedule and project decisions timing.

The following activities were carried out to meet these objectives:

- Conducted pre-scoping meetings with State of Hawaii and C&C of Honolulu agencies during the months of April through July 1997.
- Published and distributed a public scoping meeting announcement and Notice of Intent (NOI) to prepare a DEIS. The meeting announcement was published in the March 30, 31, and April 1, 1997 issues of the *Honolulu Advertiser* and the *Honolulu Star-Bulletin*. The NOI was published in the March 26, 1997 issue of the *Federal Register* (62 FR 14405) (text provided in Appendix A-2); a condensed version was published in *The Environmental Notice*, a semimonthly bulletin of the State Office of Environmental Quality Control (OEQC). In addition, the NOI was mailed directly to approximately 100 agency representatives and other potentially concerned parties. The publication in the *Federal Register* initiated the 30-day public comment period required by CEQ regulations.
- Held two public scoping meetings on April 16 and 17, 1997. The first meeting was held in the central Honolulu area at Washington Intermediate School; the second meeting was held at NASBP in the Paradise West Club. Both meetings were held at 7:00 p.m.

A summary of the scoping comments is given below. Comments received during the scoping process were used to provide focus for the potential issues and environmental consequences discussed in Chapter Four.

- The EIS should evaluate the additional risk of accidents due to general aviation flight training operations and their effect on the refinery and a portion of the State's fuel supplies. (Comment addressed in Section 4.4.3.2 of the FEIS.)
- The EIS should address concerns about siting a general aviation airport and light-industrial and residentially zoned areas in close proximity to the existing refinery in Campbell Industrial Park. (Comment addressed in Sections 4.4.2 and 4.4.3 of the FEIS.)
- All city infrastructure improvements should be in accordance with C&C of Honolulu standards and the Americans with Disabilities Act Accessibility guidelines. (Use of C&C of Honolulu standards is an operational issue that will be addressed by the LRA in the development phase.)
- The EIS should provide information on the impacts of development on water quality. Areas warranting special measures to reduce potential contamination (e.g., underground petroleum storage tanks) should be identified. Information about proposed reuse of any

sewage effluent should be disclosed, and mitigation measures proposed. Management measures should be implemented as part of development criteria to control and reduce discharge of pollutants. Requirements of Ordinance 96-34 regarding increases in runoff from new developments, including ownership, operations, and maintenance of retention/detention basins should be addressed, and the necessary permits required by C&C of Honolulu Department of Public Works (DPW) should be identified. (Comments addressed in Sections 4.1.2 and 4.1.3 of the FEIS. Requirements of Ordinance 96-34 and specific permits are operational issues that will be addressed by the LRA in the development phase.)

- The EIS should include a discussion of any former government or Crown Lands (ceded lands) which may be located within the area to be redeveloped. The EIS should address whether the proposed action on these ceded lands is appropriate under the 5(f) provisions of the Admissions Act. (There are no ceded lands at Barbers Point. See Section 1.8.3 of the FEIS.)
- The EIS should include all archaeological, cultural, floral, and faunal information known about the area. (Comments addressed in Sections 3.2 and 3.3 of the FEIS.)
- The EIS should address why Barbers Point will not be used for a veterans' home. (See Section 2.7 of the FEIS.)

1.6.2 Draft and Final Environmental Impact Statements

In accordance with NEPA and implementing CEQ regulations, draft and final environmental impact statements have been prepared, and public notifications and reviews have been undertaken. The DEIS was published in August 1998. A Notice of Availability (NOA) and announcement of public hearing for the DEIS (Appendix A-3) was published in the *Federal Register* on August 28, 1998; in the *Honolulu Advertiser* and *Honolulu Star-Bulletin* on August 30, 31, and September 1, 1998; and in the *OEQC Environmental Notice* on September 8, 1998. Copies of the DEIS were distributed to the interested parties listed in Appendix A-4. The public was given 45 days, until October 12, 1998, to submit written comments on the DEIS.

On October 5 and 7, 1998, public hearings were conducted at 7:00 p.m. at the James Campbell Building in Kapolei and Washington Intermediate School in Honolulu, respectively. The purpose of the hearings was to provide information to the public on the DEIS findings and to receive comments on the document. A total of five individuals testified at the hearings. A summary of the testimonies is presented in Appendix A-5. Complete transcripts of the hearings can be reviewed by contacting the Planner in Charge identified on the cover page of this document.

Written comments were received from 28 parties. Copies of written comments and response letters are contained in Appendix A-6.

A distribution list for this FEIS is contained in Chapter Seven. An NOA of the FEIS will be published in the *Federal Register* and the Honolulu daily newspapers, which initiates a 30-day no action period. After that time, a ROD can be issued by Navy. The ROD marks the completion of the NEPA process.

1.7 SUMMARY OF POTENTIAL ISSUES, CONCERNS, AND IMPACTS

As a result of the scoping process, the following potential impacts were identified and will be discussed in detail in the FEIS:

Physical Environment

- Surface water—potential for contamination.
- Air—potential for air quality degradation.
- Noise—land use compatibility.
- Transportation—potential for traffic degradation.

Biological Resources

- Threatened and endangered species—risks to preservation and protection.
- Sensitive habitats—risks to preservation and protection.

Cultural Resources

- Archaeological sites and historic structures—risks to preservation/protection of significant sites or structures.

Public Health and Safety

- Hazardous air pollutants—existing conditions and proposed activities resulting in releases.
- Airport protection zones—existing and proposed airport protection zones.

Public Services

- Education, police, fire, U.S. Coast Guard, hospitals, emergency services (paramedics, civil defense)—effect on capacity and response time.

Socioeconomic Environment

- Economic need for proposed reuses.
- Potential social and economic effects on local, regional, and island-wide areas.

Infrastructure

- Potable water—presence of sufficient supplies.
- Potable water—presence of adequate distribution lines (main lines only).
- Wastewater—presence of sufficient wastewater treatment facilities to handle anticipated demand.
- Wastewater—presence of adequate sewer lines (main lines only).
- Drainage—site runoff resulting from increase in impermeable surfaces associated with proposed reuse.
- Drainage—regional drainage conditions.
- Electricity—presence of sufficient electricity generation and distribution capacity for proposed project.

1.8 RELATED PLANNING ISSUES

1.8.1 Hawaiian Home Lands Recovery Act

A unique aspect of the NASBP BRAC is the role of the Hawaiian Home Lands Recovery Act (HHLRA), Pub. L. No. 104-42, 109 Stat. 357 (1995). This measure provides a legal mechanism for the transfer of excess federal land to settle long-standing land claims against the federal government which allege that certain Hawaiian home lands set aside by Congress in 1921 for homesteading by native Hawaiians were diverted to other federal uses. The State Hawaiian Homes Commission has proposed that some of the lands at NASBP be transferred to it under HHLRA. Such requests have been addressed and incorporated into the LRA's reuse plans.

On August 31, 1998, the U.S. Department of Interior (DOI) signed a Memorandum of Agreement with the State of Hawaii identifying several parcels of land, including land at NASBP, for transfer to DHHL in conditional satisfaction of the obligations of the U.S. Government under the HHLRA. Under the State-preferred alternative, approximately 644 acres (260.6 hectares) of the property will be used to partially satisfy this Memorandum of Agreement.

1.8.2 Airport Layout Plan

Specific airport plan information was obtained from the Airport Layout Plan (ALP) developed by the State of Hawaii DOT and submitted to the FAA for approval on April 21, 1997. Included in this ALP were requests for waivers and modification from the FAA guidelines. Because most of these waivers and modifications were not approved by FAA in their September 19, 1997, response letter, the ALP was revised on February 26, 1998, and resubmitted to reflect continued closure of a portion of Coral Sea Road in the southwest corner of NASBP to the public. However, because road closure was contrary to the LRA's understanding of the State-preferred alternative, the State of Hawaii DOT revised the ALP again on August 25, 1998, to include a "potential two-lane road." On October 2, 1998, FAA conditionally approved the ALP pending environmental review for public benefit conveyance of airport property. The approval included restrictions on the depiction and use of roadways located within the Runway Safety Area for Runway 4R.

1.8.3 Ceded Land

The State of Hawaii Office of Hawaiian Affairs requested that the FEIS include a discussion of any former government or Crown lands (ceded lands) which may be located within the areas to be redeveloped, and that the FEIS address whether the proposed action on these ceded lands is appropriate under the 5(f) provisions of the Admission Act, 48 U.S.C. §491 note. Navy has reviewed land records and has concluded that there are no ceded lands present on NASBP. For this reason, the provisions of the Admissions Act are not applicable.

1.9 PERMIT REQUIREMENTS AND RELATED COORDINATION

The following are permits or agency coordination required for implementation of the proposed action:

- Notice of Construction, Alterations, Activation and Deactivation of Airports, Federal Aviation Regulations, Part 157 (January 1975) and Advisory Circular No. 70-2D (August 1, 1979), under authority of U.S. Department of Transportation, Federal Aviation Administration.
- Concurrence from the Hawaii Department of Business, Economic Development, and Tourism that the proposed disposal action will be undertaken in a manner that is consistent to the maximum extent practicable with the enforceable policies of the Hawaii Coastal Zone Management (CZM) program in accordance with the Coastal Zone Management Act. Letters regarding this subject are provided in Appendix A-7.
- Consultation with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) in accordance with Section 7 of the Endangered Species Act. Letters regarding this subject are provided in Appendix A-8.
- Consultation with the State Historic Preservation Officer and Advisory Council of Historic Preservation in accordance with Section 106 of the National Historic Preservation Act. Letters regarding this subject are provided in Appendix A-9.

Permits and related coordination not expected to be required with the proposed action are addressed throughout Chapter Four and Section 5.6. One example is the Department of the Army permits addressed in Section 5.6.2. At this time, the proposed action does not require work to be performed in open coastal waters, Ordy Pond, or other wetlands; should this change in the future, Department of the Army permits would be required.

Last, the C&C of Honolulu's Department of Facility Maintenance is requesting the LRA's concurrence that the roadways, drainage systems, and other infrastructure should meet C&C of Honolulu standards.

1.10 List of Key Applicable Laws and Regulations

Key applicable laws, regulations, permits and licenses considered during the preparation of this FEIS are listed below.

- Airport and Airway Improvement Act of 1982, as amended
- Airport Noise and Capacity Act of 1990
- Archaeological and Historic Preservation Act of 1974
- Aviation Safety and Noise Abatement Act of 1979
- Aviation Safety and Capacity Expansion Act of 1990
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- Department of Transportation Act of 1966, as amended (Section 4(f))
- Defense Base Closure and Realignment Act of 1990, as amended
- Executive Order 11988 - Floodplain Management
- Executive Order 11990 - Protection of Wetlands
- Executive Order 12898 - Environmental Justice
- Executive Order 13045 - Protection of Children from Environmental Health Risks and Safety Risks
- Fish and Wildlife Coordination Act
- National Environmental Policy Act of 1969
- President's Council on Environmental Quality (CEQ) (Title 40 C.F.R. Parts 1500-1508)
- Resource Conservation and Recovery Act (RCRA)
- Water Pollution Control Act, as amended by the Clean Water Act of 1977
- Water Quality Assurance Revolving Fund

CHAPTER TWO

ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 REUSE PLANNING PROCESS

2.1.1 Background

This document analyzes environmental impacts of Navy's disposal of property at NASBP and its subsequent reuse, including the State-preferred alternative (SPA) and a reasonable range of alternatives, as required by the National Environmental Policy Act (NEPA). The range of reuse alternatives developed by the Local Redevelopment Authority (LRA) and described in the *Naval Air Station Barbers Point Community Redevelopment Plan*, March 1997, and its amendment of December 1997, satisfy NEPA requirements and provide the basis for the land use development assumptions used in this analysis. Each alternative is described in terms of general land uses and densities, and includes several specific facilities such as a motor sports raceway complex, marine park, festival center, and an international sports center. The alternatives represent a wide range of reasonable uses and densities to give Navy and the receiving agencies maximum flexibility in disposing of and redeveloping the property. Assumptions related to the reuse alternatives are provided in Appendix B and are based on the *Naval Air Station Barbers Point Community Redevelopment Plan*.

2.1.2 Agency/Community Input and Decisions of Barbers Point Local Redevelopment Authority

Task forces were established by the LRA to provide input on opportunities and constraints in the region, to evaluate notices of interest concerning their appropriateness at Barbers Point, and to make specific recommendations regarding reuse of surplus properties. Four task forces addressed homeless, housing, and education; economic development and environment; parks, recreation, and public facilities; and urban design, transportation, and utilities.

Members were nominated by the public and approved by the LRA. During the task forces' evaluation process, the following issues related to functional categories were identified and analyzed: the reuse potential of existing facilities or systems, needs of the community, alternative redevelopment scenarios, and a prioritized list of development options.

Each of the task force groups evaluated notices of interest pertaining to their functional category. This process allowed a systematic method of evaluating a range of possible reuse alternatives and determining which reuse alternatives should be considered further. Task force findings are summarized below.

- **Homeless, Housing and Education Task Force.** This task force identified the need for a single agency to coordinate the efforts of various homeless providers to insure that a full and effective continuum of care, integrating outreach, housing, treatment, education, and opportunities for employment, would be developed at Barbers Point. To meet these

objectives, notices of interest from Steadfast Housing and the Hawaii Habitat for Humanity were supported.

Proposals for residential community development were submitted by the Department of Hawaiian Home Lands (DHHL), Hawaii Housing Authority (HHA), the C&C of Honolulu's Department of Housing and Community Development, and the U.S. War Veterans Foundation. Because the task force determined that housing development in the region had out-paced creation of new jobs, which makes further market-priced housing development at Barbers Point inappropriate, most of the proposals were not considered further. Exceptions occurred with DHHL and HHA because of their unique housing programs.

Lastly, this task force concluded that any additional requirements for educational facilities in the region were being adequately addressed elsewhere. The State DOE request for the existing Barbers Point Elementary School was supported and is reflected in the reuse plan.

- **Economic Development & Environment Task Force.** Development proposals considered for further evaluation were based on the following assumptions: (1) significant areas in the region are already planned and zoned for a variety of uses to meet the needs of the proposed secondary urban center (as defined by the C&C of Honolulu); and (2) redevelopment activities at Barbers Point should focus on complimenting other proposed uses in the region. Niche markets or services otherwise unavailable in the adjacent communities were considered further. Industrial uses were minimally supported by this task force. Hawaiian Electric Company's proposal for an electric generating plant was considered feasible, but not without environmental concerns. The generating plant is included in one of the alternative reuse plans, but not the State-preferred alternative.

Proposals emphasizing recreation or sports activities as elements of the tourism industry were strongly recommended by the task force. The C&C of Honolulu's Pacific International Sports Center, a motor sports raceway complex, and a marine park were considered to be feasible projects that would bring new jobs to the community. Other proposals consistent with the task force's objectives and compatible with the existing environment were the C&C of Honolulu's regional park proposal and the marine park. The proposed military retirement community was compatible with the objectives of the task force, but because of the concern for its economic feasibility, it was not considered further.

- **Parks, Recreation & Public Facilities Task Force.** Proposals supported by this task force were ones that emphasized regional park facilities to support the existing and future population of the community. The primary criterion was need, followed by feasibility of the proposal, and whether it was appropriate and/or compatible with existing and proposed development in the region. The C&C of Honolulu's proposal for a major regional park was strongly supported, along with numerous proposals that could be incorporated into the regional park concept. Such proposals included a marine park, motor sports raceway complex, baseball complex, soccer park, Boy Scouts campgrounds, and a museum.

Most of the public facility proposals were strongly supported by the task force. Such proposals included base yards for government agencies, a secured residential drug treatment center, an ambulance facility, and a firefighting training center. The State's

correctional facility and the C&C of Honolulu's desalination plant were supported, but to a lesser extent because of the concern over potential land use conflicts.

- **Urban Design, Transportation & Utilities Task Force.** The reuse of the existing airport at NASBP was the primary issue for this task force. Other issues included efforts to integrate Barbers Point with adjacent communities, including improving access (particularly to the shoreline areas), and improving the visual continuity by replicating landscape design features found in neighboring Kapolei.

The State DOT's proposal for a general aviation reliever airport was supported by all sectors of the aviation industry, but numerous community members opposed the proposal. Without an agreement between representatives of the aviation industry and the community, the LRA was left with resolving this issue. The reuse alternatives reflect the various levels of airport use, including elimination of the airport.

The following land use alternatives, which encompass the range of reasonable alternatives based on the task forces' findings and the LRA's recommendations, are evaluated in this FEIS:

- State-preferred Alternative (and Amended State-preferred Alternative)
- Large Airport Alternative
- Small Airport Alternative
- No Airport Alternative
- No Action

For No Action, there would be no conveyance or redevelopment of surplus property.

The alternatives reflect a variety of community interests at the local, regional, and state levels. Overall objectives include meeting the needs of the community for employment and economic development and balancing these needs with those of the homeless. The alternatives address several specific objectives:

- **Reuse NASBP for aviation purposes.** Numerous studies have concluded that the mix of light general aviation with heavy, wide-body commercial aircraft at Honolulu International Airport (HIA) results in high operational delays and safety concerns. With the provision of a general aviation reliever airport at NASBP, the light general aviation aircraft operations at HIA would decrease and the State could forego the need to develop new runways and facilities in and around HIA or at another location. Retaining airport operations would also allow U.S. Coast Guard to remain at Barbers Point, provide aviation facilities for Hawaii National Guard, continue the designation of Barbers Point as an alternate landing site by civilian air carriers and military, and assist in disaster relief and civil defense response in times of emergencies and natural disasters. Only under emergency situations would Barbers Point be used as an alternate landing site and only under these situations would civilian air carriers actually use Barbers Point. No such situation has occurred in all the years the civilian air carriers have operated at HIA.
- **Reuse NASBP for parks and recreation.** The development of parks and recreational facilities would alleviate the current shortage of these in the rapidly growing Ewa district.

- **Reuse NASBP to provide local employment opportunities.** Although Leeward Oahu has been the site of demographic and economic growth in recent years, jobs are still concentrated in the Honolulu urban center. The employment opportunities that could be provided with the reuse of NASBP would be consistent with the C&C of Honolulu's objective to stimulate the growth of employment in the region where NASBP is located.

The alternatives considered by the LRA, which are the subject of this document, are described in Sections 2.2 through 2.6. In summary, the areas allotted to each land use type, under each alternative, are shown in Table 2.1-1. Table 2.1-1 acreages are approximate; actual acreages for each parcel to be transferred are being developed through property surveys conducted by Navy.

Central Area. In its planning process, the LRA developed a plan for the central area of NASBP. This plan is the same in all alternatives, except No Action. The overall intent of the Central Area plan (Figure 2.1-1) is to create a new neighborhood center focusing on residential use that accommodates homeless providers and DHHL housing. Approximately 13 acres (5.3 hectares) are designated for homeless services, including offices, training centers, chemical dependency programs, a clinic, special needs housing, recreational facilities, and open space. Fourteen acres (5.7 hectares) with medium density housing and pedestrian connections to adjacent neighborhoods are planned. A 7-acre (2.8-hectare) park between the proposed residential areas is planned. Approximately 6 acres (2.4 hectares) are designated for commercial use. Public facilities will occupy 13 acres (5.3 hectares) and include an 11-acre (4.5-hectare) parcel for a vocational training center.

2.2 STATE-PREFERRED ALTERNATIVE (NAVY-PREFERRED ALTERNATIVE)

The State-preferred alternative (Figure 2.2-1), which is Navy's preferred alternative, proposes dividing NASBP property into mixed land uses. The largest land component (709 acres [286.9 hectares]) is the airport, which consists of a general aviation¹ reliever airport, and the University of Hawaii aviation training center. The proposed airport would have two parallel runways (Runways 4L-22R and 4R-22L) and a crosswind runway (Runway 11-29). The U.S. Coast Guard would remain in its existing facilities adjacent to and south of Runway 4R-22L. The Hawaii National Guard would be located adjacent to the airport and north of Runway 22R.

The airport in the State-preferred alternative would:

- Solve the problem of an unsatisfactory mix of small, light general aviation and large, heavy air carrier aircraft at HIA. The airport would serve about 60 percent of the small single-engine and light twin-engine propeller aircraft forecast to be based at HIA by the year 2020, and serve about 50 percent of the general aviation aircraft projected to be based at Dillingham Airfield. In total, approximately 105,900 annual general aviation aircraft operations from these two airports could be served by the airport at Barbers Point by the year 2020.

¹ General aviation is all civil aviation not classified as air carrier or commuter/air taxi and includes business and corporate aviation, pleasure flying, and flight training.

**Table 2.1-1
Land Use Types and Associated Areas**

Land Use Type	Alternative Development Plans (acres [hectares]) ^a			
	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative
Airport	709 [286.9]	968 [391.7]	708 [286.5]	50 [20.2] ^b
Parks and Recreation	686 [277.6]	395 [159.9]	745 [301.5]	965 [390.5]
Commercial, Private Recreation, and Light Industrial	515 [208.4]	519 [210.0]	489 [197.9]	749 [303.1]
Housing ^c	165 [66.8]	220 [89.0]	160 [64.7]	190 [76.9]
Public Facilities	33 [13.4] ^d	35 [14.2]	35 [14.2]	55 [22.3]
Roads, Open Space, Utilities	29 [11.7] ^d	(incorporated in appropriate land use type)	(incorporated in appropriate land use type)	128 [51.8]
Totals	2,137 [864.8]	2,137 [864.8]	2,137 [864.8]	2,137 [864.8]

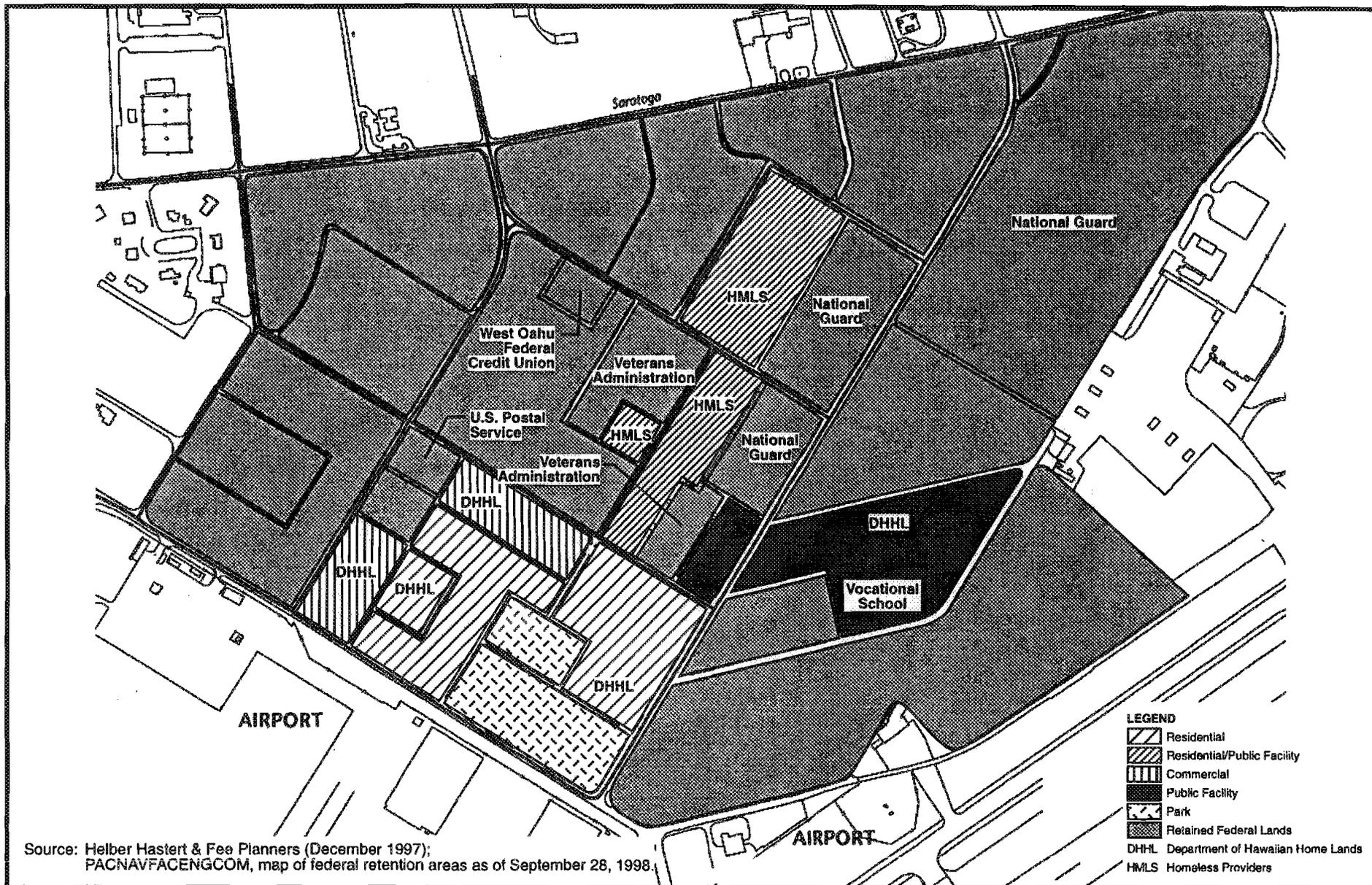
^a Land areas are estimates provided to show the relative differences between alternatives; actual acreages are being developed through property surveys conducted by Navy. State-preferred alternative land area estimates were provided by U.S. Navy, PACNAVFACENGCOM.

^b Previously considered surplus property, this area is now designated for U.S. Coast Guard use. Under the No Airport alternative, the U.S. Coast Guard would have to relocate and the National Guard would request this parcel.

^c Housing includes homeless facilities.

^d Additional acre added to reflect changes in current approximation of acreages.

- Accommodate the approximately 62,700 annual general aviation training operations that would be displaced by the closing of Ford Island Auxiliary Landing Field (ALF) in Pearl Harbor.
- Accommodate the estimated 13,100 annual operations of U.S. Coast Guard (C-130 aircraft and helicopters) and Hawaii Army National Guard (C-130 and C-26 aircraft and helicopters).
- Assist in disaster relief and civil defense response in times of emergencies and natural disasters.
- Provide an 8,000-foot (2.4-kilometer) runway (Runway 4R-22L) to accommodate commercial airline requirements for designation of an alternate landing site (under emergency situations only).
- Provide a 4,500-foot (1.4-kilometer) runway (Runway 4L-22R) for general aviation operations.
- Provide a 6,000-foot (1.8-kilometer) crosswind runway (Runway 11-29) for take-offs over the ocean on Runway 11 and landings over the ocean on Runway 29. Limiting the existing 8,411-foot (2.6-kilometer) runway to 6,000 feet would restrict U.S. Coast Guard operations because fully loaded C-130s would not be able to take off during non-tradewind conditions.



Source: Helber Hastert & Fee Planners (December 1997);
 PACNAVFACENGCOM, map of federal retention areas as of September 28, 1998.

- LEGEND**
- Residential
 - Residential/Public Facility
 - Commercial
 - Public Facility
 - Park
 - Retained Federal Lands
 - DHHL Department of Hawaiian Home Lands
 - HMLS Homeless Providers

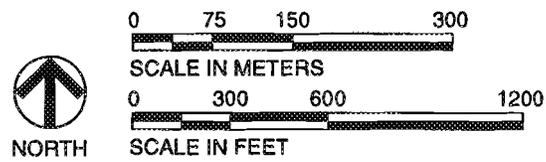
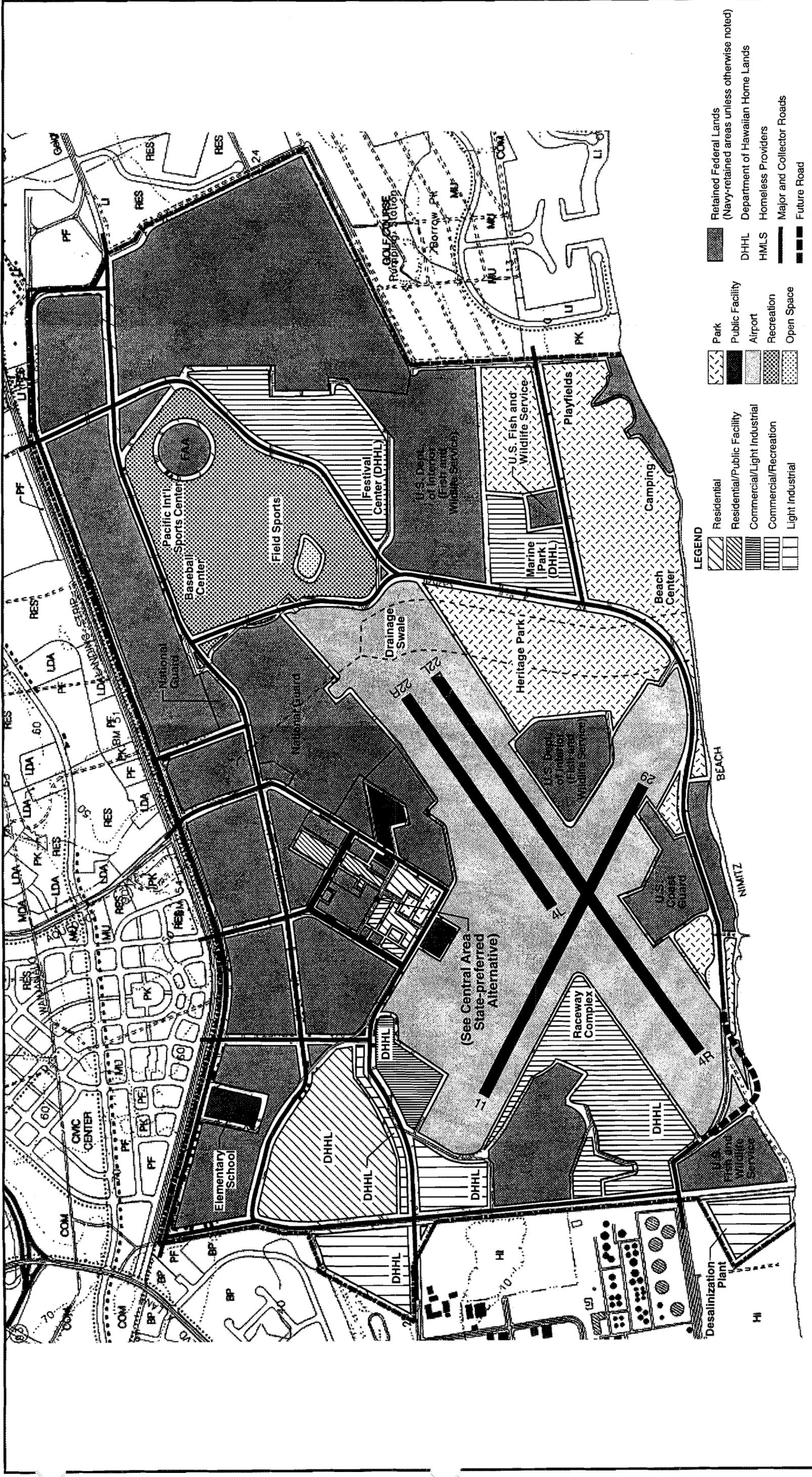


Figure 2.1-1
CENTRAL AREA, STATE-PREFERRED ALTERNATIVE

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



LEGEND

	Residential		Park
	Residential/Public Facility		Public Facility
	Commercial/Light Industrial		Airport
	Commercial/Recreation		Recreation
	Light Industrial		Open Space

	Retained Federal Lands (Navy-retained areas unless otherwise noted)
	DHHH Department of Hawaiian Home Lands
	HMLS Homeless Providers
	Major and Collector Roads
	Future Road

NORTH

SCALE IN METERS
0 800 1600 3200

SCALE IN FEET
0 200 400 800

Figure 2.2-1
STATE-PREFERRED ALTERNATIVE

Sources: Helber Hastert & Fee Planners (March 1997 and December 1997); PACNAV/FACENGCOM, map of federal retention areas as of September 28, 1998. EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii

Large areas, approximately 686 acres (277.6 hectares), would be devoted to park and recreation uses, such as regional shoreline parks and active sports. Along the shoreline, undeveloped lands would accommodate ocean-related activities along with camping, picnicking, and other passive recreational opportunities. Inland areas containing significant archaeological features are envisioned to be preserved as part of a heritage park. Other inland sites are proposed for sports fields and youth-oriented league sports facilities. In the northeast portion, an international sports center is proposed to support athletic training programs, in-transit athlete services, sports competitions and conferences, and public participation programs. A baseball complex is proposed for league and exhibition games serving local and visiting international teams.

Commercial uses, totaling 515 acres (208.4 hectares), would be divided into 322 acres (130.3 hectares) of commercial recreational uses in the northeast and 193 acres (78.1 hectares) of commercial and light industrial activities along the west property edge and in the Central Area. Three areas for commercial recreation activities are intended to be primarily outdoor recreational, entertainment, and spectator venues which could be operated as private, for-profit ventures. Commitments for specific facilities have not yet been made, but possible facilities include a motor sports raceway complex, a marine park, and a festival center. Other commercial and light industrial uses would support airfield operations. A water desalination plant is being considered along the shoreline at the Barbers Point Industrial Park, on the southwest perimeter of the site, to supplement Oahu's long-term potable water needs.

Residential uses would be located on 165 acres (66.8 hectares); most of these areas are located in the northwest corner of the base and adjacent to retained Navy housing. The primary use of these lands is affordable housing under DHHL's administration. Public facilities include a vocational school and elementary school. Existing infrastructure systems, such as potable water, wastewater, drainage, electrical, and communication systems within the base, would require upgrades and expansion. Roadway improvements would be made to link Barbers Point to surrounding communities. A future road, the location of which is yet to be determined, is proposed in the southwest corner of NASBP to provide public thoroughfare to the southwest of Runway 4R and to link portions of Coral Sea Road to the east and west sides of the airport. The design and environmental analysis of this future road will be undertaken at a later date. The LRA and the State DOT have agreed to this future undertaking. A Memorandum of Understanding (MOU) has been prepared between the LRA and the State DOT providing the details of this agreement (see Appendix D). A separate non-Navy NEPA document will be required to assess the environmental impacts of the future road project. Approvals from FAA and other affected agencies will be required for the roadway design.

2.3 LARGE AIRPORT ALTERNATIVE

Figure 2.3-1 illustrates the Large Airport alternative considered by the LRA. The intent of the Large Airport alternative is to provide maximum flexibility for airport operations while accommodating DHHL's request for lands and addressing regional park requirements.

The Large Airport alternative would include 968 acres (391.7 hectares) for an airport with two parallel runways (Runway 4L-22R and 4R-22L) and a crosswind runway (Runway 11-29) to be used as a general aviation reliever airport for Honolulu International Airport. The number of general aviation operations would be similar to those forecast under the State-preferred alternative. The major differences between the Large Airport alternative and the State-preferred alternative, in terms

of the airport, are the size of the airport area (the Large Airport alternative being the largest), the lengths and configurations of the runways, and the resulting changes in capabilities associated with runway lengths and configurations. The Large Airport alternative:

- preserves the existing two parallel 8,330-foot (2.5-kilometer) runways (Runways 4R-22L and 4L-22R); and
- preserves the existing 8,411-foot (2.6-kilometer) crosswind runway (Runway 11-29).

The 8,411-foot crosswind runway, which is longer than the crosswind runway under the State-preferred alternative, would provide the U.S. Coast Guard with the added capability of being able to perform take-offs with C-130s under fully loaded conditions during non-tradewind conditions.

In this alternative, light industrial and commercial uses would occupy approximately 519 acres (210.0 hectares) in the northeast, northwest, and southwest portions of the property and possibly include sites for a correctional facility and a motor sports raceway complex. Park and recreation activities would occupy approximately 395 acres (159.8 hectares) along the shoreline and southeast portion of the property. Residential uses by DHHL would occupy approximately 220 acres (89.0 hectares).

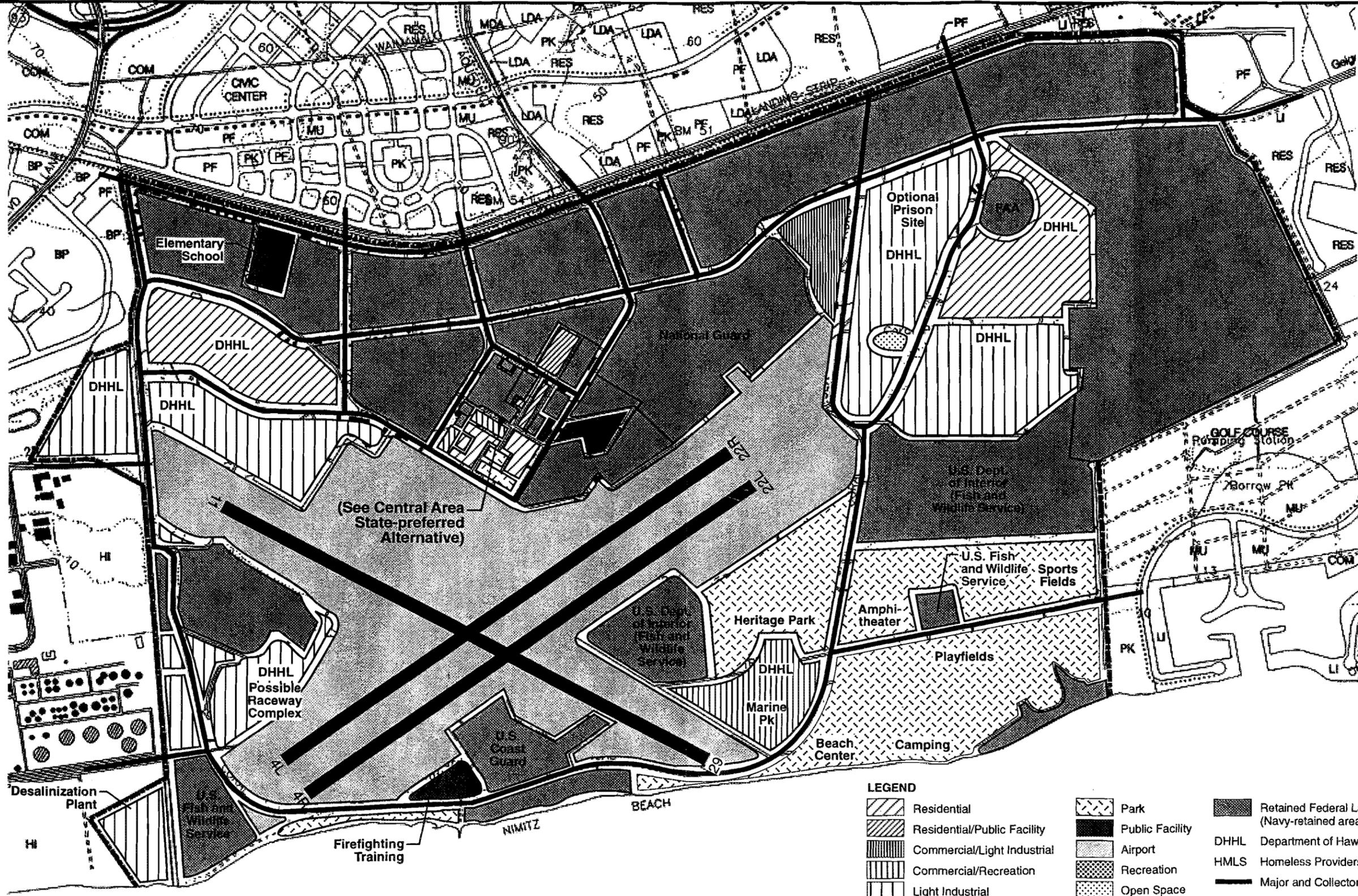
2.4 SMALL AIRPORT ALTERNATIVE

Of the alternatives containing an airport, this alternative would provide the minimum airport facilities to accommodate the aviation industry goals for Barbers Point (approximately 708 acres [286.5 hectares]). It would provide two parallel runways (Runways 4L-22R and 4R-22L) and no crosswind runway (Figure 2.4-1). The number of general aviation operations would be similar to those forecast under the State-preferred and Large Airport alternatives. The major differences between in the Small Airport alternative and other alternatives are the size of the airport area (the Small Airport alternative being the smallest), the lengths and configurations of the runways, and the resulting changes in capabilities associated with runway lengths and configurations. The Small Airport alternative:

- provides two parallel runways—an 8,000-foot (2.4-kilometer) runway (Runway 4L-22R) and a 3,700-foot (1.1-kilometer) runway (Runway 4R-22L); and
- does not provide a crosswind runway.

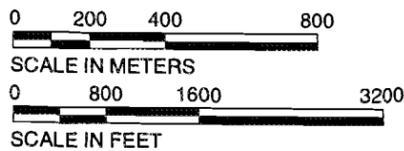
The 8,000-foot runway (Runway 4L-22R) would provide an alternative landing site (for emergency situations) for commercial airlines at HIA. This alternative would restrict U.S. Coast Guard operations because no crosswind runway would be provided.

In this alternative, parks and recreational activities would occupy the largest area (approximately 745 acres [301.5 hectares]), including the coastline and eastern portion of the property, and would include a combination of passive and active recreational opportunities. Light industrial/commercial uses on approximately 489 acres (197.9 hectares) on the western side of the base would provide income for DHHL and might include a correctional facility. DHHL requests would be consolidated into a single 160-acre (64.7-hectare) area in the northwest corner of the property.



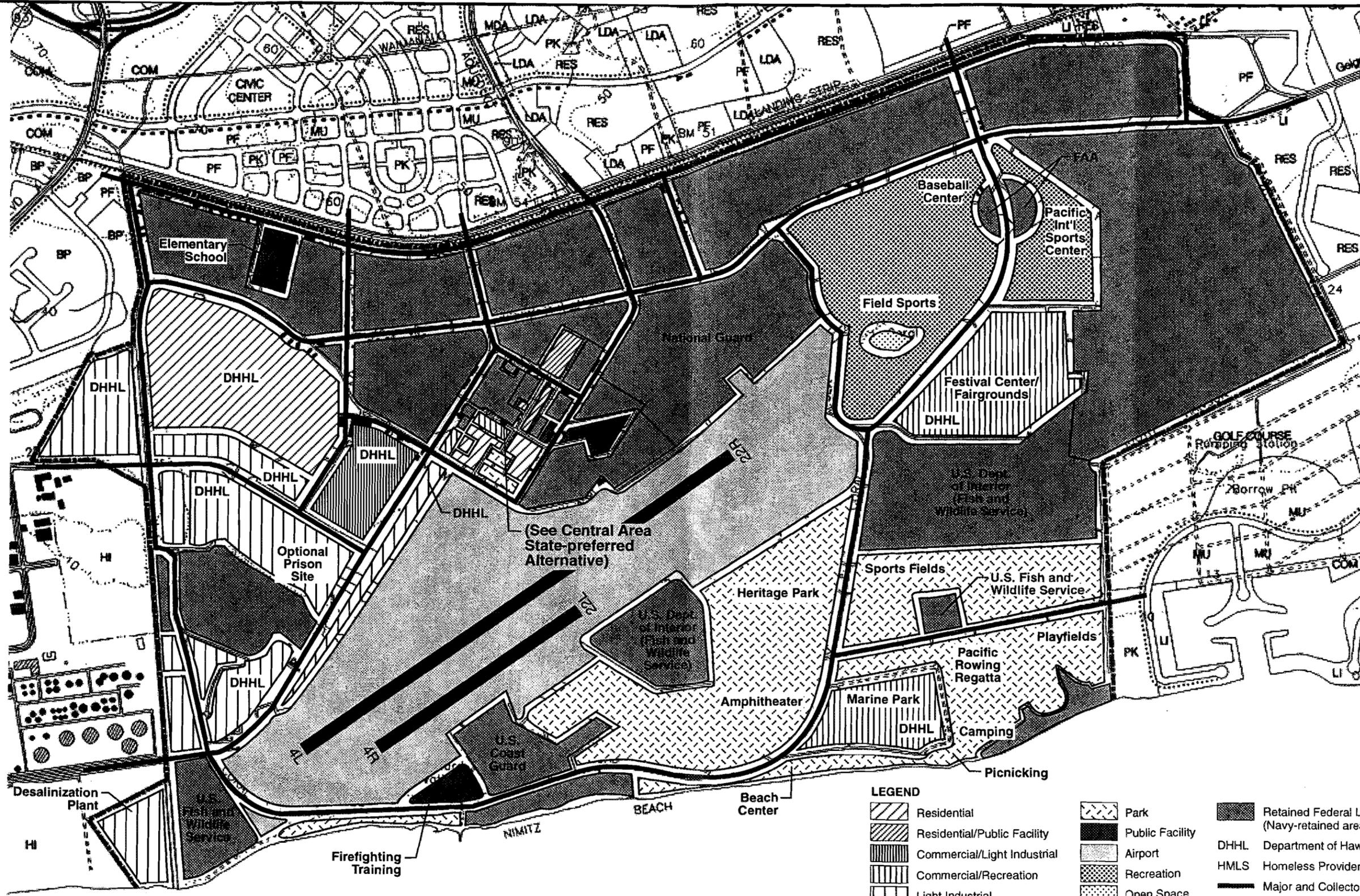
LEGEND

	Residential		Park		Retained Federal Lands (Navy-retained areas unless otherwise noted)
	Residential/Public Facility		Public Facility		DHHL Department of Hawaiian Home Lands
	Commercial/Light Industrial		Airport		HMLS Homeless Providers
	Commercial/Recreation		Recreation		Major and Collector Roads
	Light Industrial		Open Space		

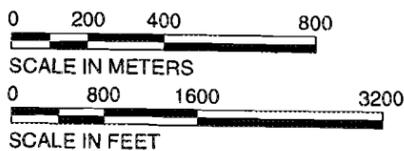


Sources: Helber Hastert & Fee Planners (March 1997 and December 1997);
PACNAVFACENGCOM, map of federal retention areas as of September 28, 1998.

Figure 2.3-1
LARGE AIRPORT ALTERNATIVE
EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii



LEGEND			
	Residential		Retained Federal Lands (Navy-retained areas unless otherwise noted)
	Residential/Public Facility		DHHL Department of Hawaiian Home Lands
	Commercial/Light Industrial		HMLS Homeless Providers
	Commercial/Recreation		Major and Collector Roads
	Light Industrial		Park
			Public Facility
			Airport
			Recreation
			Open Space



Sources: Helber Hastert & Fee Planners (March 1997 and December 1997); PACNAVFACENCOM, map of federal retention areas as of September 28, 1998.

Figure 2.4-1
SMALL AIRPORT ALTERNATIVE
 EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii

2.5 NO AIRPORT ALTERNATIVE

Another scenario developed by the LRA maximizes the development of community- and tourist-related recreational activities and completely excludes a general aviation airport (Figure 2.5-1). Without the use of an airport, the U.S. Coast Guard must relocate. The majority of surplus lands, nearly 965 acres (390.5 hectares), would be dedicated to parks and recreation, expanding opportunities for active and passive recreation. Commercial/recreational activities would occupy nearly 527 acres (213.3 hectares) in the southwest and eastern parts of the base; these might include a raceway complex, marine park, and festival center and fairgrounds. Light industry on approximately 152 acres (61.5 hectares) on the western side of the property might include a power plant, correctional facility, and DHL enterprises with an approximate 70 additional acres for utilities. Housing would occupy 190 acres (76.9 hectares).

2.6 NO ACTION

In the No Action alternative, Navy would retain ownership of the property in caretaker status, and there would be no redevelopment of surplus property. Without the use of an airport, the U.S. Coast Guard must relocate.

2.7 REQUEST CONSIDERED AND NOT INCLUDED IN THE ALTERNATIVES

The LRA's Homeless, Housing, and Education Task Force reviewed a request for a veterans' home. This task force determined that existing housing developments in the region, including affordable housing, adequately serve the needs of veterans. Likewise, affordable housing and housing for the homeless are included in the LRA's alternatives. For these reasons, the request to include a veterans' home was not incorporated into the LRA's plans.

2.8 SUMMARY OF POTENTIAL IMPACTS

The criteria for evaluating potential impacts and determining their significance are specified in 40 C.F.R. §1508.27. Significance is determined by the intensity or severity of the impact and by the context of the impact. Criteria for determining intensity are based on relative changes. Table 2.8-1 summarizes and compares the potential environmental impacts for each alternative.

No significant direct impacts will result from Navy's disposal of approximately 2,137 acres (864.8 hectares) of surplus property. With the exception of traffic impacts associated with special attractions, e.g., large events at the motor sports raceway park, all indirect and cumulative impacts can be mitigated so that they are not significant. In most cases, mitigation will be the responsibility of the LRA or the developer. Navy will be responsible for informing the appropriate bureau within the U.S. Department of Interior (DOI) of its responsibility to consult under Section 7 of the federal Endangered Species Act of 1973 prior to the conveyance of lands from the U.S. DOI to the State of Hawaii and C&C of Honolulu with regard to potential reuse impacts on 'akoko. Navy is also responsible for developing deed covenants with the State Historic Preservation Officer (SHPO) to ensure appropriate treatment of cultural resources affected by proposed reuse. Mitigation of impacts

relating to drainage require further negotiations with affected parties and are currently unresolved. The following is a discussion of the potential impacts, along with the identification of the environmentally preferred alternative and Navy's preferred alternative.

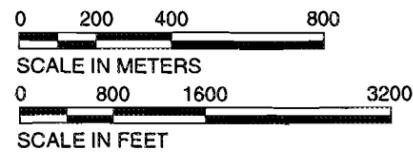
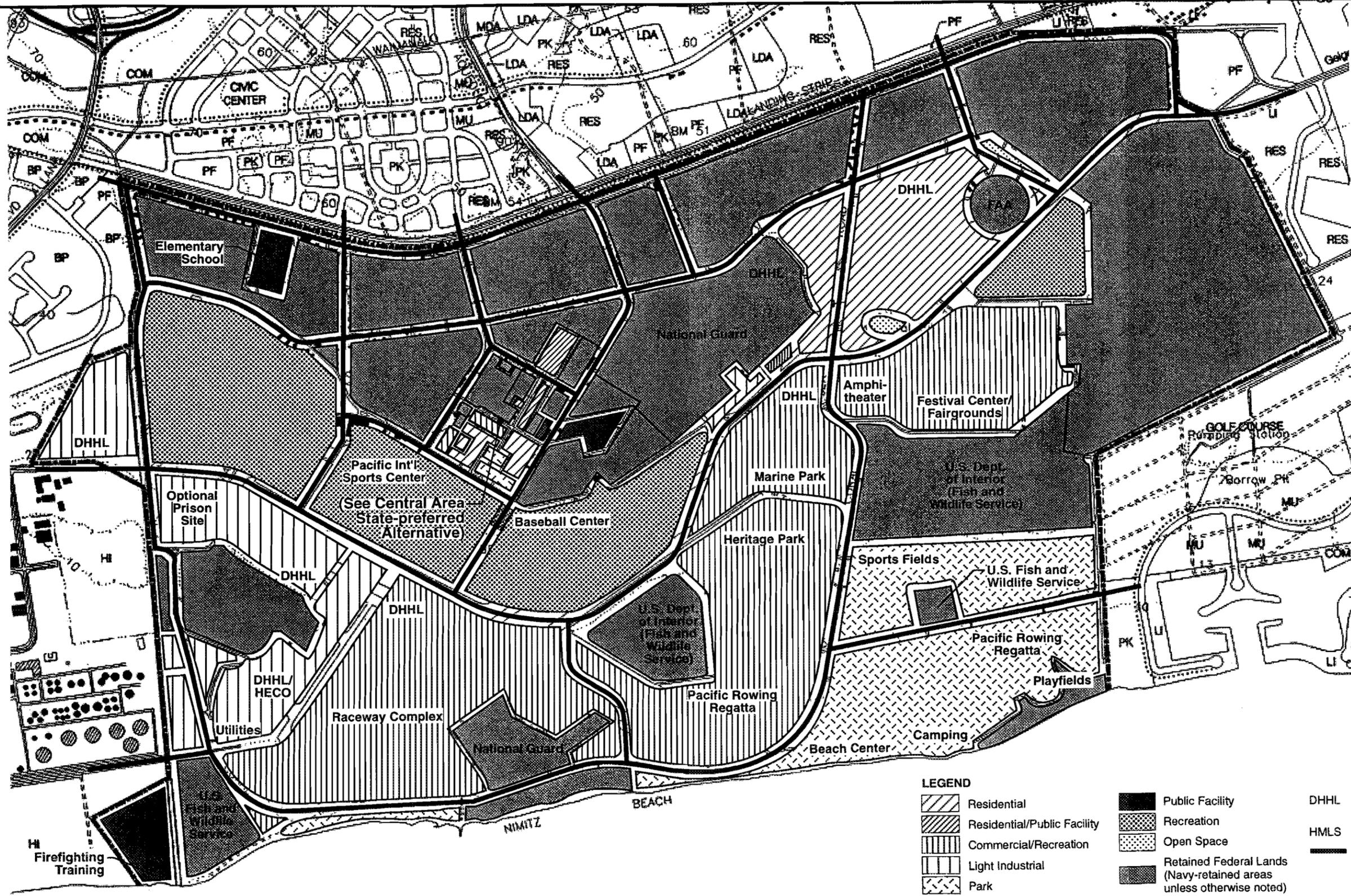
Comparison of Alternatives. No significant impacts are anticipated on geology, topography, soils, water quality, air quality, noise, visual resources, air and marine transportation, terrestrial fauna, marine biota, sensitive habitats, public health and safety, police and fire protection, U.S. Coast Guard operations, health care services, income, revenue, housing, recreation, or infrastructure systems for potable water, non-potable water, wastewater, electricity, solid waste, or communications.

Significant impacts, which vary in degree between alternatives, could occur on traffic, terrestrial flora, sensitive habitats, cultural resources, education, employment (impacts are beneficial), and drainage (see Table 2.8-1) without mitigation. With the exception of traffic associated with special events under all reuse alternatives, all impacts can be mitigated to levels that are not significant.

Mitigation for reuse alternatives will prevent significant impacts from occurring. With the exception of traffic associated with special events attracting 50,000 to 65,000 people (at the proposed festival center or raceway park), traffic increases can be mitigated to levels that are not significant by implementing recommended roadway improvements listed in Table 4.1-7. Even with mitigation, traffic impacts associated with these special attractions would be significant. Potential significant impacts on terrestrial flora of concern, the 'akoko, will be avoided since consultation in accordance with state or federal endangered species laws and regulations (Section 7 of the Endangered Species Act of 1973) will be required. In addition, restrictive covenants (identified during Navy's consultation with USFWS [see Appendix A-8]), will provide 'akoko plants a degree of protection equal to or greater than that which is currently provided. Potential significant impacts on sensitive habitats would be avoided through mitigation measures developed by U.S. DOI (sponsoring agency) in consultation with the USFWS. No significant impacts on cultural resources (archaeological sites and historic structures) will occur with the disposal of surplus lands, provided the transfer includes deed covenants that ensure appropriate treatment of those resources affected by proposed reuse. The State Historic Preservation Officer has concurred with the Navy "no adverse effect" determination (see Appendix A-9). Potentially significant impacts on elementary schools could be mitigated by adding new classroom buildings at Barbers Point Elementary School, redistricting to reallocate the student populations, or possibly constructing a second elementary school in the area. Last, potentially significant impacts on drainage could be avoided with the construction of on-site storm water disposal facilities such as dry wells, infiltration galleries, and ponding basins, or providing a drainage system to convey storm water to the ocean.

Under all reuse alternatives, minority and low-income populations would benefit due to increases in available housing and health services designated for these populations. With the exception of the highly unlikely emissions release scenario (worst-case condition) from nearby CIP, none of the alternatives would result in disproportionate health or safety risks to children.

Environmentally Preferred Alternative. The No Action alternative would create the least impacts on the environment, but it would not meet the purpose and need. Navy would retain ownership and liability for surplus property with no function and no operational or strategic value. The environmentally preferred alternative that would meet the purpose and need is the No Airport



Sources: Helber Hastert & Fee Planners (March 1997 and December 1997);
 PACNAVFACENGCOM, map of federal retention areas as of September 28, 1998.

Figure 2.5-1
NO AIRPORT ALTERNATIVE
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

alternative. Many of the impacts in the No Airport alternative would be similar to the State-preferred alternative, with the exceptions of noise, public safety, and drainage, which would be less.

Navy-preferred Alternative. The State-preferred alternative (see Section 2.2), approved by the LRA and the Governor, is Navy's preferred alternative. It would benefit the local community and would be consistent with the intent of the President's Five-Part Plan for Revitalizing Base Closure Communities. As stated above, traffic associated with special events would be the only significant impact that could not be completely mitigated.

**Table 2.8-1
Summary of Impacts and Mitigation for All Alternatives**

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Geology, topography, and soils	No significant impacts on soil stability from proposed construction. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Not applicable (no development will occur).
Water quality: groundwater	No significant impacts due to light industrial, landscape, and maintenance activities, with required implementation of BMPs and spill control measures, use of low-water consumption plants for landscaping, and minimized use of chemicals for landscaping. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	No change, assuming continuation of presently programmed cleanup actions. Mitigation: None required.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Water quality: surface waters (open coastal waters)	<p>No significant impacts because wastewater discharge flow limits would not be exceeded, and land uses along the coast would remain unchanged. Temporary, localized impacts during construction and after heavy rainfall events.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>No impact.</p>
Water quality: surface waters (wetlands)	<p>No significant impacts because no dredging or excavation in wetlands. Minimal impacts due to runoff, and possible spills during construction or storm water runoff from light industrial facilities would be managed with implementation of BMPs and other measures.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>No impact.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Air quality: stationary sources	<p>No significant impacts from emissions in commercial/light industrial areas (515 acres) because of existing regulatory requirements.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from emissions in commercial/light industrial areas because of existing regulatory requirements. Potential impact is slightly greater than SPA since acreage planned for commercial/light industrial (519 acres) is slightly greater.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from emissions in commercial/light industrial areas because of existing regulatory requirements. Potential impact is less than SPA since acreage planned for commercial/light industrial (489 acres) is less.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from emissions in commercial/light industrial areas because of existing regulatory requirements. Potential impact is greater than SPA since acreage planned for commercial/light industrial (749 acres) is more.</p> <p>Mitigation: None required.</p>	<p>Decrease in air emissions relative to baseline conditions.</p> <p>Mitigation: None required.</p>
Air quality: mobile sources	<p>No significant impacts from vehicle or aircraft emissions.</p> <p>Vehicular emissions of CO would be approximately 3% of vehicular emissions in region (island).</p> <p>Aircraft emissions not significant based on FAA criteria.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from vehicle or aircraft emissions.</p> <p>Vehicular emissions of CO would be approximately 4% of vehicular emissions in region.</p> <p>Aircraft emissions not significant based on FAA criteria.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from vehicle or aircraft emissions.</p> <p>Vehicular emissions of CO would be approximately 4% of vehicular emissions in region.</p> <p>Aircraft emissions not significant based on FAA criteria.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from vehicle or aircraft emissions.</p> <p>Vehicular emissions of CO would be approximately 4% of vehicular emissions in region.</p> <p>Decrease in aircraft emissions relative to baseline conditions.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from vehicle or aircraft emissions.</p> <p>Decrease in vehicular emissions of CO relative to baseline conditions.</p> <p>Decrease in aircraft emissions relative to baseline conditions.</p> <p>Mitigation: None required.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Noise: aircraft	<p>No significant impacts from aircraft noise: lower noise levels than baseline conditions and less than 60 DNL in all noise-sensitive areas.</p> <p>No significant cumulative noise impacts due to proximity to Honolulu International Airport (HIA). Lower aircraft noise levels than baseline conditions.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from aircraft noise: lower noise levels than baseline conditions and less than 60 DNL in all noise-sensitive areas. 60 DNL contour encompasses a slightly larger area than SPA west of Runways 4L and 11.</p> <p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>No significant impacts from aircraft noise: lower noise levels than baseline conditions and less than 60 DNL in all noise-sensitive areas. 60 DNL contour encompasses a slightly larger area than SPA west of Runway 4L.</p> <p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Decrease in aircraft noise relative to baseline conditions. Noise would result from single-event occurrences of Hawaii Army National Guard helicopters. Helicopter use would be less than that assumed in other reuse alternatives.</p> <p>No significant cumulative noise impacts; significant decrease in airport noise levels would result.</p> <p>Mitigation: None required.</p>	<p>No aircraft noise from Barbers Point.</p> <p>No significant cumulative noise impacts; a significant decrease in airport noise levels would result as the only aircraft noise would be from overflights to and from HIA.</p> <p>Mitigation: None required.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Noise: other	Other specific land use activities that are a source of noise such as the motor sports raceway park would not significantly impact baseline noise levels because they must comply with existing state regulations. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Not applicable. Mitigation: None required.
Visual resources	Beneficial impact of opening coastal parks to the public. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	No change from baseline condition; limited public access. Mitigation: None required.
Transportation: air	Not applicable. (HIA will continue to provide transportation of goods, services, and passengers) Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Transportation: marine	No significant impact on transportation of goods, services, and passengers. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.
Transportation: roads and traffic Average daily trips (ADT)	ADT = 49,107 (compared to 27,300 under baseline conditions; all figures include vehicle trips from retained areas). Mitigation: None required.	ADT = 59,489 This alternative has the highest number of vehicle trips and greatest volume of peak-hour traffic. Mitigation: None required.	ADT = 53,140 Mitigation: None required.	ADT = 54,963 Mitigation: None required.	ADT = 12,251 Mitigation: None required.
Transportation: roads and traffic Intersection analysis	No significant impacts on traffic conditions at key intersections with planned roadway improvements and additional mitigation at one intersection identified below. Mitigation: Implement intersection improvements at Fort Weaver Road/Geiger Road/Iroquois Point intersection.	No significant impacts on traffic conditions at key intersections with planned roadway improvements at four intersections identified below Mitigation: Implement intersection improvements at four intersections, as listed in Table 4.1-7.	No significant impacts on traffic conditions at key intersections with planned roadway improvements and additional mitigation at one intersection identified below. Mitigation: Implement intersection improvements at Fort Weaver Road/Geiger Road/Iroquois Point intersection.	No significant impacts on traffic conditions at key intersections with planned roadway improvements and additional mitigation at one intersection identified below. Mitigation: Implement intersection improvements at Fort Weaver Road/Geiger Road/Iroquois Point intersection.	No significant impact on traffic conditions at key intersections. Mitigation: None required.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
<p>Transportation: roads and traffic</p> <p>Traffic conditions during special attractions.</p>	<p>Motor sports raceway complex: significant impact during major events, even with mitigation.</p> <ul style="list-style-type: none"> - 55,000 spectators (max.) - 2 hours or more required to enter/exit. - 18,300 parking spaces are required (1,200 spaces are planned at raceway). <p>Mitigation: Special traffic and parking plans, controls, and operations.</p>	<p>Motor sports raceway complex: significant impact (similar to those in SPA).</p> <p>Mitigation: Similar to SPA.</p>	<p>Motor sports raceway complex: no impact (motor sports raceway complex not planned).</p> <p>Mitigation: None required.</p>	<p>Motor sports raceway complex: significant impact during major events, even with mitigation.</p> <ul style="list-style-type: none"> - 65,000 spectators (max.) - 3 to 4 hours to enter/exit. - 21,700 parking spaces are required (1,200 are planned at raceway). <p>Mitigation: Special traffic and parking plans, controls, and operations.</p>	<p>Motor sports raceway complex: no impact (motor sports raceway complex not planned).</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
<p>Transportation: roads and traffic</p> <p>Traffic conditions during special attractions. (continued)</p>	<p>Festival center: significant impact during major events, even with mitigation.</p> <ul style="list-style-type: none"> - 50,000 (max.) for fair - 3.5 hours required to enter/exit. - 16,700 parking spaces are required (3,500 spaces are planned for this facility). <p>Mitigation: Special traffic and parking plans, controls, and operations.</p>	<p>Festival center: no significant impacts because major events, such as state fair or large amphitheater are not included in this alternative.</p> <p>Mitigation: None required.</p>	<p>Festival center: significant impact during major events, even with mitigation.</p> <ul style="list-style-type: none"> - 8,000 for amphitheater - 1.5 to 2 hours to enter/exit. - 3,200 parking spaces are required (3,500 spaces are planned for this facility). <p>Mitigation: Special traffic and parking plans, controls, and operations.</p>	<p>Festival center: significant impact during major events, even with mitigation.</p> <ul style="list-style-type: none"> - 8,000 (max.) for amphitheater - 1 hour or less to enter/exit with planned roadways. - 3,200 parking spaces are required (3,500 spaces are planned for this facility). <p>Mitigation: Special traffic and parking plans, controls, and operations.</p>	<p>Festival center: no impact (Festival center not planned).</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Terrestrial flora	<p>No significant impact of new construction on endangered 'akoko populations with appropriate mitigation measures resulting from consultations with USFWS. Without mitigation, potential impacts on 'akoko could occur on west and east sides of the base in areas designated for light industrial, residential, recreational, and commercial/recreational use.</p> <p>Mitigation: Pursuant to Section 7 of the federal ESA, USFWS concurs with Navy's determination that proposed property conveyance is not likely to adversely affect 'akoko. For those parcels being conveyed through the U.S. DOI, Navy will be responsible for informing the appropriate bureau within the U.S. DOI of</p>	<p>Similar to SPA, with more potential impact in the eastern areas of the base, since light industrial and residential uses have less flexibility than recreational uses for open spaces and buffer zones.</p> <p>Mitigation: Similar to SPA.</p>	<p>Similar to SPA.</p> <p>Mitigation: Similar to SPA.</p>	<p>Similar to SPA.</p> <p>Mitigation: Similar to SPA.</p>	No impact.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Terrestrial flora (continued)	its responsibility to consult under Section 7 of the ESA.				
Terrestrial fauna	No significant impact on terrestrial fauna. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	No impact.
Marine biota	No significant impact on the threatened green sea turtle or coral reefs. Temporary surface water runoff during construction. Storm water runoff controls and other measures could avoid or reduce impacts. Pursuant to Section 7 of the federal ESA, NMFS concurs that proposed property conveyance is not likely to adversely affect listed species or critical habitat under NMFS jurisdiction. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	No impact.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Sensitive habitats (wetlands)	<p>No significant impact on wetlands in surplus areas from destruction or runoff from development, since mitigation will be developed in consultation with USFWS.</p> <p>Mitigation: Pursuant to Section 7 of the federal ESA, USFWS and NMFS concur with Navy's determination that the proposed conveyance of property is not likely to adversely affect the subject species (consideration includes habitats of these species) with consultation. Mitigation resulting from consultation with USFWS could include preventing development in and establishing buffer zones around wetlands.</p>	<p>Similar to SPA.</p> <p>Mitigation: Similar to SPA.</p>	<p>Similar to SPA.</p> <p>Mitigation: Similar to SPA.</p>	<p>Similar to SPA.</p> <p>Mitigation: Similar to SPA.</p>	<p>No impact.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Cultural resources: archaeological sites	<p>No significant impact on sites eligible for listing in the NRHP. Thirty-eight of the 62 sites are located on land designated for uses other than parks/recreation.</p> <p>Mitigation: Pursuant to Section 106 of NHPA, SHPO concurs with Navy's "no adverse effect" determination for the disposal of surplus lands with significant cultural resources providing inclusion of deed covenants. Deed covenants will ensure appropriate treatment of resources affected by proposed reuse.</p>	<p>No significant impact on sites eligible for listing in the NRHP. Greater potential impact than SPA since 43 of the 62 total sites are located on land designated for uses other than parks/recreation.</p> <p>Mitigation: Similar to SPA.</p>	<p>No significant impact on sites eligible for listing in the NRHP. Similar to SPA since 38 of the 62 total sites are located on land designated for uses other than parks/recreation.</p> <p>Mitigation: Similar to SPA.</p>	<p>No significant impact on sites eligible for listing in the NRHP. Less potential impact than SPA since 7 of the 62 total sites are located on land designated for uses other than parks/recreation.</p> <p>Mitigation: Similar to SPA.</p>	<p>No actions would be taken that might result in a potential adverse impact to significant cultural resources.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Cultural resources: historic structures	<p>No significant impact on structures eligible for listing in the NRHP. One of the 64 structures is located on land designated for residential use.</p> <p>Mitigation: Pursuant to Section 106 of NHPA, SHPO concurs with Navy's "no adverse effect" determination for the disposal of surplus lands with significant cultural resources providing inclusion of deed covenants. Deed covenants will ensure appropriate treatment of resources affected by proposed reuse.</p>	<p>No significant impact on structures eligible for listing in the NRHP. Greater potential impact than SPA since 7 of the 64 structures are located on land designated for residential use.</p> <p>Mitigation: Similar to SPA.</p>	<p>Similar to SPA.</p> <p>Mitigation: Similar to SPA.</p>	<p>No significant impact on structures eligible for listing in the NRHP. Greater potential impact than SPA since 3 of the 64 structures are located on land designated for residential use.</p> <p>Mitigation: Similar to SPA.</p>	<p>No actions would be taken that might result in a potential adverse impact to significant cultural resources.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Public health and safety (from on-site contaminated areas/hazardous substances)	No significant impacts on public health or the environment due to on-site contamination as sites will be cleaned up in accordance with applicable laws. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.
Public health and safety (from potential emissions of hazardous air pollutants and materials use associated with reuse)	No significant impacts on neighboring and proposed land uses at NASBP with the required environmental permits and approvals. Hazardous air pollutants and materials use could occur in the 515 acres planned for industrial/commercial use. Mitigation: None required.	No significant impacts on neighboring and proposed land uses at NASBP with the required environmental permits and approvals. Potential hazardous air pollutants and materials use from the 519 acres planned for industrial/commercial use is slightly greater than SPA. Mitigation: None required.	No significant impacts on neighboring and proposed land uses at NASBP with the required environmental permits and approvals. Potential hazardous air pollutants and materials use from the 489 acres planned for industrial/commercial use is less than SPA. Mitigation: None required.	No significant impacts on neighboring and proposed land uses at NASBP with the required environmental permits and approvals. Potential hazardous air pollutants and materials use from the 749 acres planned for industrial/commercial use is greater than SPA. Mitigation: None required.	No impact. Mitigation: None required.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
<p>Public health and safety (from hazardous air pollutants and materials from neighboring CIP)</p>	<p>No significant risk of impact on public health and safety for proposed residential populations in northwest area of NASBP; however, DOH discourages residential development in this area.</p> <p>Mitigation: None required. This is a management issue for the LRA.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required. This is a management issue for the LRA.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required. This is a management issue for the LRA.</p>	<p>No impact; no housing planned next to Campbell Industrial park.</p>	<p>Not applicable.</p>
<p>Public health and safety (from airport use)</p>	<p>No significant impacts on public safety because the State DOT's ALP conforms with FAA design criteria, established to protect people and property on the ground, incorporated with the proposed airport use.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Public Health and Safety (from aircraft impacts with birds)	Risk of aircraft impacts with birds would be similar to present risk. No significant impact, assuming compliance with 14 C.F.R. §139.337, wildlife hazard management, to minimize risk. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Not applicable.	Not applicable.
Explosive Safety Quantity Distance	Not applicable. (None will occur after base closure.) Mitigation: None required.	Same as SPA. Mitigation: None required.	Same as SPA. Mitigation: None required.	Same as SPA. Mitigation: None required.	Same as SPA. Mitigation: None required.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Public services: education	<p>The 613 new students (least impact) projected for the reuse area would not have a significant impact on existing elementary schools in the Barbers Point and Ewa areas if mitigation is implemented.</p> <p>Mitigation: Add new classroom buildings at Barbers Point Elementary School and/or redistrict, or construct a second elementary school in the area.</p>	<p>Similar to SPA, but 977 new students (greatest impact).</p> <p>Mitigation: Same as SPA.</p>	<p>Similar to SPA, but 799 new students.</p> <p>Mitigation: Same as SPA.</p>	<p>Similar to SPA, but 866 new students.</p> <p>Mitigation: Same as SPA.</p>	<p>No change from baseline condition.</p> <p>Mitigation: None required.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Public services: police, fire protection, and U.S. Coast Guard	<p>No significant impacts on regional police services. Existing aircraft firefighting capability (to be transferred to State DOT) is adequate. Firefighting capabilities of the Kapolei and Ewa Beach stations would be sufficient to handle structural fires in reuse area. U.S. Coast Guard services will be maintained.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA, except U.S. Coast Guard would need to relocate.</p> <p>Mitigation: None required.</p>	<p>U.S. Coast Guard would need to relocate.</p> <p>Mitigation: None required.</p>
Public services: health care	<p>Beneficial impact to the region since all redevelopment alternatives include new clinics.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Mitigation: None required.</p>	<p>No impact.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Socioeconomics: employment	<p>Significant beneficial increase in civilian jobs during construction and long-term operations. 3,600 civilian, operational jobs estimated in reuse areas in year 2020. This represents a 730% increase over baseline conditions.</p> <p>Mitigation: None required.</p>	<p>Significant beneficial increase in civilian jobs during construction and long-term operations. 9,300 civilian, operational jobs estimated in reuse areas in year 2020. This represents a 1,863% increase over baseline conditions.</p> <p>Mitigation: None required.</p>	<p>Significant beneficial increase in civilian jobs during construction and long-term operations. 6,800 civilian, operational jobs estimated in reuse areas in year 2020. This represents a 1,369% increase over baseline conditions.</p> <p>Mitigation: None required.</p>	<p>Significant beneficial increase in civilian jobs during construction and long-term operations. 4,000 civilian, operational jobs estimated in reuse areas in year 2020. This represents a 813% increase over baseline conditions.</p> <p>Mitigation: None required.</p>	No impact.
Socioeconomics: revenue	<p>Beneficial state and county tax revenues.</p> <p>Construction related revenue (state) = \$100 million.</p> <p>Annual property tax revenue (county) = \$5 million.</p> <p>Mitigation: None required.</p>	<p>Beneficial state and county tax revenues.</p> <p>Construction related revenue (state) = \$114 million.</p> <p>Annual property tax revenue (county) = \$12 million.</p> <p>Mitigation: None required.</p>	<p>Beneficial state and county tax revenues.</p> <p>Construction related revenue (state) = \$123 million.</p> <p>Annual property tax revenue (county) = \$9 million.</p> <p>Mitigation: None required.</p>	<p>Beneficial state and county tax revenues.</p> <p>Construction related revenue (state) = \$159 million.</p> <p>Annual property tax revenue (county) = \$6 million.</p> <p>Mitigation: None required.</p>	<p>Economic Land resources unavailable for use by local community and government agencies, and no economic benefit from employment income or tax revenues.</p> <p>Mitigation: None required.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Socioeconomics: housing	<p>Significant beneficial increase in housing for Hawaiian families and for Oahu's homeless population.</p> <p>Total units = 1,281</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Total units ~ 1,900</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Total units 1,588</p> <p>Mitigation: None required.</p>	<p>Similar to SPA.</p> <p>Total units ~ 1,711</p> <p>Mitigation: None required.</p>	No impact.
Socioeconomics: recreation	<p>Beneficial impact; provides 681 acres for parks and recreation (relative to anticipated 2020 island-wide shortfall of 453 acres).</p> <p>Mitigation: None required</p>	<p>Beneficial impact; provides 390 acres of parks and recreation.</p> <p>Mitigation: None required</p>	<p>Beneficial impact; provides 740 acres of parks and recreation.</p> <p>Mitigation: None required</p>	<p>Beneficial impact; provides 960 acres of parks and recreation.</p> <p>Mitigation: None required</p>	<p>Does not relieve anticipated 2020 island-wide shortfall of 453 acres of parks and recreation.</p> <p>Mitigation: None required</p>
Infrastructure: potable water	<p>No significant impact on water supply; projected consumption (581 gpad) does not exceed the BWS guideline of 2,500 gpad.</p> <p>Mitigation: None required.</p>	<p>No significant impact on water supply; projected consumption (1,238 gpad) does not exceed the BWS guideline of 2,500 gpad.</p> <p>Mitigation: None required.</p>	<p>No significant impact on water supply; projected consumption (910 gpad) does not exceed the BWS guideline of 2,500 gpad.</p> <p>Mitigation: None required.</p>	<p>No significant impact on water supply; projected consumption (657 gpad) does not exceed the BWS guideline of 2,500 gpad.</p> <p>Mitigation: None required.</p>	<p>Decrease in use relative to baseline conditions.</p> <p>Mitigation: None required.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Infrastructure: non-potable water	No impact on caprock aquifer because non-brackish water derived from reclaimed effluent would be used. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	Similar to SPA. Mitigation: None required.	No impact.
Infrastructure: wastewater	No significant impact on existing facilities; estimated average daily flow of 0.51 MGD is below the 1.1 MGD capacity for the reuse area. Mitigation: None required.	No significant impact on existing facilities; estimated average daily flow of 0.85 MGD is below the 1.1 MGD capacity for the reuse area. Mitigation: None required.	No significant impact on existing facilities; estimated average daily flow of 0.70 MGD is below the 1.1 MGD capacity for the reuse area. Mitigation: None required.	No significant impact on existing facilities; estimated average daily flow of 0.67 MGD is below the 1.1 MGD capacity for the reuse area. Mitigation: None required.	Decrease in use relative to baseline conditions. Mitigation: None required.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Infrastructure: storm water drainage	<p>No significant impact from 31% increase in runoff (due to increase in paved area) over existing conditions with mitigation.</p> <p>Mitigation: Construct on-site storm water disposal facilities (dry wells, infiltration galleries, ponding basins); or provide a drainage system to convey storm water to the ocean; or develop a combination of both.</p>	<p>No significant impact from 68% increase in runoff (due to increase in paved area) over existing conditions with mitigation.</p> <p>Mitigation: Construct on-site storm water disposal facilities (dry wells, infiltration galleries, ponding basins); or provide a drainage system to convey storm water to the ocean; or develop a combination of both.</p>	<p>No significant impact from 35% increase in runoff (due to increase in paved area) over existing conditions with mitigation.</p> <p>Mitigation: Construct on-site storm water disposal facilities (dry wells, infiltration galleries, ponding basins); or provide a drainage system to convey storm water to the ocean; or develop a combination of both.</p>	<p>No significant impact from 8% increase in runoff (due to increase in paved area) over existing conditions.</p> <p>Mitigation: None required.</p>	No increase in runoff.
Infrastructure: storm water drainage (continued)	<p>Significant cumulative effects due to regional (off-site) storm water runoff through both the reuse and retained areas.</p> <p>Mitigation: Allow runoff from the Kaloι Gulch basin to flow downslope to the Ewa Marina area, following its natural drainage pattern, rather than redirecting the flow. Coordination with Navy and affected parties is required.</p>	<p>Similar to SPA.</p> <p>Mitigation: Same as SPA.</p>	<p>Similar to SPA.</p> <p>Mitigation: Same as SPA.</p>	<p>Similar to SPA.</p> <p>Mitigation: Same as SPA.</p>	No change in runoff over baseline conditions.

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Infrastructure: electricity	<p>No significant impact; power demand of about 36 MVA exceeds existing on-site electrical distribution system capacity of 25 MVA, but the island-wide power grid can accommodate anticipated increase in electrical demand.</p> <p>Mitigation: New electrical owner to upgrade on-site electrical system; this requires coordination between HECO, Navy, and LRA.</p>	<p>No significant impact; power demand of about 76 MVA exceeds existing on-site electrical system capacity of 25 MVA, but the island-wide power grid can accommodate anticipated increase in electrical demand.</p> <p>Mitigation: Same as SPA.</p>	<p>No significant impact; power demand of about 57 MVA exceeds existing on-site electrical system capacity of 25 MVA, but the island-wide power grid can accommodate anticipated increase in electrical demand.</p> <p>Mitigation: Same as SPA.</p>	<p>No significant impact; power demand of about 40 MVA exceeds existing on-site electrical system capacity of 25 MVA, but the island-wide power grid can accommodate anticipated increase in electrical demand.</p> <p>Mitigation: Same as SPA.</p>	<p>Decrease in electrical use relative to baseline conditions.</p> <p>Mitigation: None required.</p>

Table 2.8-1 Summary of Impacts and Mitigation for All Alternatives (continued)

Affected Resource	State-preferred Alternative (SPA)	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action
Infrastructure: solid waste	No significant impact; estimated average solid waste generation (11.6 TPD) is less than the baseline tonnage. Mitigation: None required.	No significant impact; estimated average solid waste generation (21.8 TPD) is less than the baseline tonnage. Mitigation: Same as SPA.	No significant impact; estimated average solid waste generation (17.3 TPD) is less than the baseline tonnage. Mitigation: Same as SPA.	No significant impact; estimated average solid waste generation (14.9 TPD) is less than the baseline tonnage. Mitigation: Same as SPA.	Decrease in solid waste generation rates relative to baseline conditions. Mitigation: None required.
	No significant impact associated with estimated volume of demolition waste (89,000 CY) Mitigation: None required.	No significant impact associated with estimated volume of demolition waste (89,000 CY) Mitigation: None required.	No significant impact associated with estimated volume of demolition waste (110,000 CY) Mitigation: Same as SPA.	No significant impact associated with estimated volume of demolition waste (250,000 CY) Mitigation: Same as SPA.	No impact.
	No significant impact associated with estimated volume of clearing and grubbing waste (838,000 CY) Mitigation: None required.	No significant impact associated with estimated volume of clearing and grubbing waste (838,000 CY) Mitigation: Same as SPA.	No significant impact associated with estimated clearing and grubbing waste (910,000 CY) Mitigation: Same as SPA.	No significant impact associated with estimated clearing and grubbing waste (910,000 CY) Mitigation: Same as SPA.	Decrease in waste generation.
Communications	No significant environmental impacts are anticipated. Mitigation: None required.	Same as SPA. Mitigation: None required.	Same as SPA. Mitigation: None required.	Same as SPA. Mitigation: None required.	No impact.

CHAPTER THREE

AFFECTED ENVIRONMENT

Chapter Three describes the affected environment and establishes the baseline conditions used to conduct the environmental consequences analyses in Chapter Four. Except where otherwise noted, baseline conditions are those that reflect NASBP activity levels in 1993, just prior to the base closure decision. Regions of influence (ROI) are defined and the surplus properties briefly described to provide context for the affected environment descriptions and environmental consequences analyses.

Regions of Influence

ROI are the geographic boundaries within which the proposed action or alternatives being considered may exert some discernible effect. In general, the localized area of influence is NASBP. The region includes the adjacent communities of the Ewa Plain. The broader area of influence is the island of Oahu.

Effects on each resource are analyzed based on the appropriate ROI. For example, the effects of construction noise will be localized, while the additional potable water demands could affect the regional water supply, and the socioeconomic effects of specific airport uses may be felt island-wide. Specifically, the ROI for each resource or issue are as follows, for all of the alternatives:

- Geology, topography, and soils: NASBP
- Hydrology (groundwater, surface water, drainage): Ewa region and nearshore waters
- Air quality: NASBP and regional air shed
- Noise: Ewa region, particularly those areas within the 60 day-night sound level (DNL) noise contour for aircraft operations
- Visual resources: NASBP and adjacent properties
- Transportation: Ewa region
- Biological resources: NASBP
- Marine biota: Nearshore waters of NASBP
- Cultural resources: NASBP
- Public health and safety: NASBP and adjacent properties
- Public services: Ewa region and island of Oahu
- Socioeconomics: Ewa region and island of Oahu
- Utilities: Ewa region and island of Oahu

Overview of Surplus Properties

NASBP is situated in leeward Oahu, approximately 16 miles (26 kilometers) west of downtown Honolulu. Approximately 2,137 acres (864.8 hectares) of NASBP have been designated surplus property by the U.S. Navy. The surplus land includes the airfield and aviation facilities, portions of the central urban core, some industrial support areas, wooded open areas, and shoreline. Much of the central urban core and existing residential military housing will be retained by Navy.

Approximately half of the surplus land is unimproved open area. The shoreline is approximately 15,000 feet (3,976 meters) long, while open, undeveloped lands comprise approximately

1,150 acres (465.8 hectares). Wetlands, which are considered sensitive habitats, endangered species, and cultural resources are found in these open areas.

Existing structures include those associated with the airport (on approximately 721 acres [292.0 hectares]), Barbers Point Elementary School (on 14 acres [5.7 hectares]), one credit union in the central urban core (on 1 acre [0.4 hectare]), other buildings in the central urban core (on approximately 96 acres [38.9 hectares]), and historic structures that include part of the existing revetments and two airport hangars.

3.1 PHYSICAL ENVIRONMENT

3.1.1 Geology, Topography, and Soils

Geology

The Hawaiian Islands represent the southernmost portion of the Hawaiian Archipelago, a series of northwest-trending ridges produced by a series of volcanic eruptions during the Pliocene Epoch. The island of Oahu was formed by two shield volcanoes that arose during the early Tertiary Period, about 70 million years ago. The Waianae Volcano created the western half of Oahu, and the Ko'olau Volcano formed the Ko'olau Range and Schofield Plateau.

NASBP is located at the edge of the Schofield Plateau on a coastal plain, which is composed of interbedded coral reef and alluvial volcanic sediments ("caprock") overlying the basalt (volcanic rock). The caprock ranges from 50 to 400 feet (15 to 122 m) thick along the northern NASBP boundary and from 750 to 1,000 feet (229 to 305 m) thick along the coast. The upper 100 feet (30 m) of caprock is marine sediment, consisting mainly of coral reef with minor layers of shell fragments and beach sands.

Topography

NASBP, situated on the southern coastal plain of Oahu, is relatively flat. The ground surface slopes gently southward, from a maximum elevation of approximately 65 feet (19.8 m) above mean sea level (MSL) along the northern boundary, to sea level at the southern coastal boundary. The average slope across the site is approximately 0.5 percent. Prominent topographic features include sinkholes.

Soils

NASBP is situated on coral outcrop (CR) with little or no soil cover (U.S. Department of Agriculture, Soil Conservation Service in cooperation with the University of Hawaii Agricultural Experiment Station, August 1972). Across nearly the entire installation, soil cover consists of a thin layer of friable, red material present in cracks, crevices, and depressions in the coral outcrop. Along the northern, western, and eastern boundaries of the site the soils are Mamala Stony silty clay loam. This soil type is formed in shallow alluvial deposits over the coral and is dark reddish-brown stony silty clay loam, neutral to mildly alkaline, with moderate permeability and slight to moderate erosion potential. The south shore comprises beach sand, which consists of light-colored sands derived from coral and seashells. The airfields are situated on filled land consisting of material dredged from the ocean or hauled from nearby areas, and general material from other sources.

3.1.2 Groundwater

There are two groundwater bodies underlying the NASBP area: a deep confined aquifer in the underlying basalt and an overlying unconfined caprock aquifer. Both aquifers are in direct hydraulic contact with seawater. Groundwater in the basalt is classified as irreplaceable. It is brackish under NASBP, with chloride content ranging from 250 milligrams per liter (mg/l) to 1,000 mg/l (Mink and Lau, February 1990). Groundwater in this aquifer is too deep to be susceptible to contamination from the surface. While both aquifers qualify as underground sources of drinking water under the federal Safe Drinking Water Act (SDWA), the State of Hawaii has a more stringent standard for salinity and does not recognize these aquifers for potable use.

At NASBP, the water table (caprock) is roughly at sea level, ranging from zero at the shoreline to approximately 50 feet (15 m) below ground surface along the northern boundary. Caprock water is brackish, with chloride content ranging from 1,000 to 5,000 mg/l. Although the caprock aquifer is highly vulnerable to contamination (Mink and Lau, February 1990), it is not suitable for water consumption or for irrigation without desalination. Production wells have not been developed at NASBP, and there are no beneficial human uses of this aquifer. However, the caprock aquifer has received surface runoff via injection wells and drywells.

The *BRAC Cleanup Plan (Draft) for NAS Barbers Point, Oahu, Hawaii* (U.S. Navy, January 1998) indicates that low contaminant concentrations measured in the groundwater are uniformly distributed across NASBP and are considered to be representative of "background" levels, with the exception of one well in the vicinity of a recent fuel spill that is being investigated separately (as part of the underground storage tank program because it is in Navy retention area). Samples were collected quarterly from wells around the base for six quarters between January 1995 and September 1996, and were analyzed for a wide range of compounds, including volatile and semi-volatile organic compounds, fuel hydrocarbons, PCBs, pesticides, carbamates, herbicides, metals, pH, and physical parameters. Pesticides, herbicides, and metals have been detected at low levels, posing no significant risks to humans or the environment. Even though some contaminants were detected in dry well sediments on the base and not observed to have an impact on regional groundwater quality, Navy has decided to remove sediments with contaminant concentrations exceeding hazardous waste criteria so that they will not pose a disposal problem during maintenance by the new land owners in the future. Sediments with concentrations exceeding hazardous waste levels were removed between July and November 1998.

Monitoring results from the most downgradient wells were compared to the State of Hawaii Department of Health's Water Quality Standards for Saltwater. Copper was detected at approximately three times the water quality standard of 2.9 µg/L for chronic exposure. Groundwater quality is not expected to have an adverse effect on the ocean environment because the concentrations of copper are not much higher than the standard, and some dilution is expected when groundwater reaches the ocean.

Last, constituents detected in the groundwater were compared with their respective maximum contaminant levels (MCLs) established by the federal SDWA, 40 C.F.R. Part 141 and the State of Hawaii Department of Health, HAR Title II, Chapter 20. Thallium was detected in most of the wells at concentrations that were approximately four times the SDWA MCL of 2.0 µg/L. During the February 1996 monitoring event, lindane was detected in one well at a concentration four times higher than the MCL of 0.2 µg/L established by the SDWA and the State of Hawaii Department of

Health, HAR Title 11, Chapter 20. It was not detected in any other wells or during any other sampling events. In general, results from the 1998 monitoring event were consistent with previous data. The excess cancer risk under a reasonable maximum exposure scenario is $4E-05$, and the hazard index is 1.0, both of which are just at or near the trigger level for remediation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). However, groundwater beneath the base requires desalination in order to be used as a drinking water source. It is anticipated that treatment will also remove the thallium from the groundwater. Navy does not plan to perform any groundwater remediation prior to transfer because thallium appears to be distributed uniformly across the base and is not attributed to Navy activities. Annual monitoring will continue until property transfer to ensure that no significant changes in groundwater quality occur.

3.1.3 Surface Water

No natural streams are present on NASBP, and the highly permeable soil and rock allow storm water to easily infiltrate. Due to the flat topography, runoff collects in man-made detention basins, dry wells, natural sinkholes, or pits for infiltration into the subsurface. Under extreme precipitation events, storm water overflows these storage facilities and sheet flows into the ocean.

Open Coastal Waters

NASBP borders the Pacific Ocean on the south. Coastal waters fronting the southern boundary are classified by State DOH as Class A open coastal waters (Department of Health, State of Hawaii, October 1992). The objective of Class A waters is to protect their use for recreation and aesthetic enjoyment. This classification allows other uses as long as they are compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters. It does not allow any discharges that have not received the best degree of treatment or control compatible with the criteria established for this class (Department of Health, State of Hawaii, October 1992). The NASBP areas fronting the open coastal waters are used for recreation and for open space. Nimitz Beach is a popular site for sunbathing, swimming, fishing, and other recreational activities. Storm water reaches the ocean by sheet flow. There are no drainage outfalls or other point sources of discharge on the base. Groundwater does not appear to be a source of contaminants to the ocean; further groundwater assessments will be conducted in 1998 to address this concern.

East of NASBP is an outfall for discharging treated effluent from the C&C of Honolulu's Honouliuli Wastewater Treatment Plant (WWTP) to the ocean. Wastewater generated at NASBP is conveyed to this plant for treatment and disposal. Currently, of the approximately 25 million gallons per day (MGD) ($100,000 \text{ m}^3/\text{d}$) being discharged from the ocean outfall, an average of only 0.57 MGD ($2,280 \text{ m}^3/\text{d}$) comes from NASBP. The outfall is regulated under the National Pollutant Discharge Elimination System (NPDES) program. Under the NPDES permit, water quality standards do not need to be met within the zone of mixing (ZOM) defined for the outfall.

Wetlands

At least seven types of wetlands exist in Hawaii, excluding marine intertidal zone wetlands. Two types are present at NASBP, a single anchialine pond, named Ordy Pond, and an unnamed seasonal lowland pond.

Ordy Pond, like all anchialine ponds, is hydraulically connected with the ocean. The open water surface area of Ordy Pond is slightly less than one acre (0.4 hectare), and the level fluctuates with the tide. Mangroves are present around the site. This anchialine pond, the only such wetland at NASBP, is located north of Tripoli Road, in the southeast portion of the installation. Ownership of this property will be transferred to the USFWS.

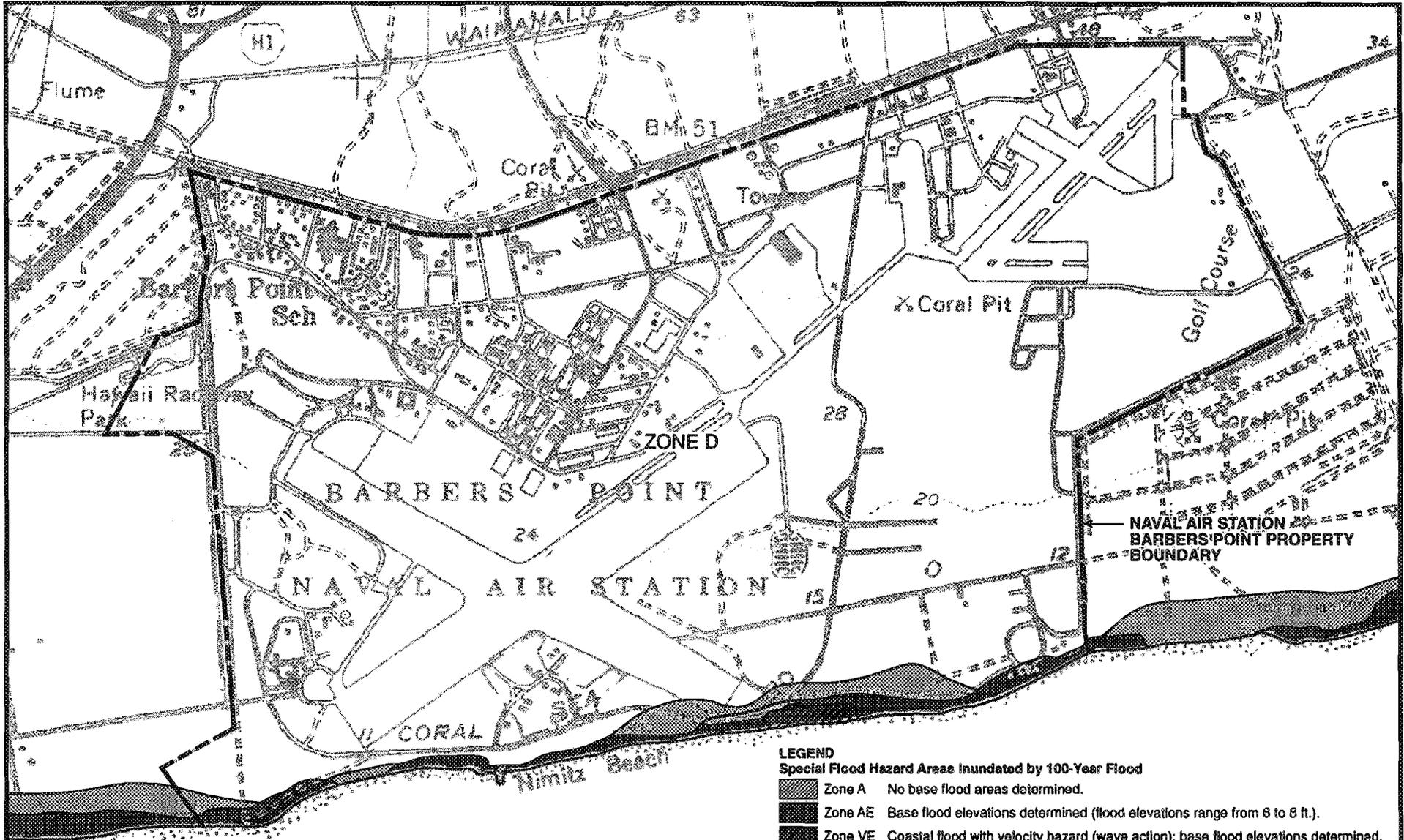
The other wetland located at NASBP is a seasonal, freshwater site located on the western boundary of the base. This seasonal wetland may occasionally provide habitat for endangered and migratory birds that frequent Ordy Pond and the coastal salt flats. There are no records to indicate that this seasonal freshwater wetland has ever been contaminated. Both of these wetlands are designated as Class 2 inland waters. The objective for Class 2 waters is to protect their use for recreational purposes, propagation of fish and aquatic life, and agricultural and industrial water supplies, shipping, navigation, and propagation of shellfish (Department of Health, State of Hawaii, October 1992). Other pond areas on reuse lands have minimal water or are dry for long periods.

Ordy Pond is an Installation Restoration Program (IRP) site because of prior disposal there of ordnance-related scrap materials, pallets, manuals, packing materials, and agitene (solvent) drums. The IRP is a component of the Defense Environmental Restoration Program which is discussed further in Section 3.4.1.1. Contaminants at Ordy Pond include low concentrations of hydrocarbons, metals, organic compounds, and compounds associated with exploded ordnance. Risk assessment findings indicate that concentrations do not pose a significant risk to human health. Water and sediment samples collected over a three-year period indicate that the site does not appear to pose a significant threat to ecological receptors. Annual water and sediment monitoring will be conducted until property transfer to ensure that no significant changes in conditions occur.

Flood Hazard Areas

According to the Flood Insurance Rate Map (FIRM) (Federal Emergency Management Agency, September 28, 1990), the area of the base from Renton Road to within 100 to 900 feet (30 to 270 m) of the shoreline lies within Zone D. Zone D designates areas in which flood hazards are undetermined, but which lie outside of what FEMA considers as special flood hazard areas (i.e. 100-year flood).

As depicted in Figure 3.1-1, the shoreline areas along NASBP lie in either Zones A, AE, or VE, which are different types of special flood hazard areas at NASBP inundated by the 100-year storm. The Zone A areas are the most inland, and range in width from 80 to 500 feet (24 to 150 m). These areas are undeveloped, and a flood study to determine depth of flooding would have to be completed before any structure could be built within a Zone A site. The Zone AE areas west of the main airfield are located along the coast between Zone A and the shoreline. East of the airfield, a Zone AE area lies between Zone A and Zone VE designated areas. The base flood elevations in the AE Zones range between 6 and 8 feet (1.8 and 2.4 m) MSL. The VE Zone is subject to tsunami inundation and extends up to 200 feet (60 m) inland from the shoreline, with a flood elevation of 7 feet (21 m) MSL.



Sources: USGS Topographic Map of the Island of Oahu (1970);
 Flood Insurance Rate Map (September 1987).

LEGEND
Special Flood Hazard Areas Inundated by 100-Year Flood
 Zone A No base flood areas determined.
 Zone AE Base flood elevations determined (flood elevations range from 6 to 8 ft.).
 Zone VE Coastal flood with velocity hazard (wave action); base flood elevations determined.
Other Areas
 Zone D Areas in which flood hazards are undetermined.

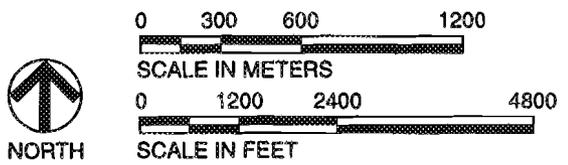


Figure 3.1-1
FLOOD HAZARD AREAS
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

3.1.4 Climate and Air Quality

Climate

The island of Oahu is situated at 21°30'N, 158°00'W. Climate is influenced by its subtropical location, topography, and by the surrounding Pacific Ocean. Precipitation is primarily associated with the prevailing moisture-laden northeasterly trade winds that are intercepted and forced upwards at the Ko'olau Range. Trade winds are less pronounced at NASBP, with local and land breezes prevailing most of the year. Average annual rainfall at NASBP is 20 inches (51 cm), and the period of highest rainfall occurs between the months of October and April. Monthly average rainfall varies from 0.1 to 3.9 inches (0.25 to 10 cm) (State of Hawaii, DLNR, Division of Water and Land Development, June 1982). Winds are predominantly northeast trade winds. During significant meteorological events like tropical storms, winds of 25 knots (12.7 m/sec) or greater may occur.

Average temperatures on Oahu range from 72 degrees Fahrenheit (°F) in January to 78.5°F in August. The average daily temperature variation in the vicinity of NASBP is approximately 13°F.

Air Quality

The U.S. Environmental Protection Agency (EPA) characterizes air quality by comparing concentrations of criteria pollutants to established National Ambient Air Quality Standards (NAAQS). The State Department of Health has established ambient air quality standards similar to the NAAQS. Criteria pollutants at the national level include carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter, ozone (O₃), and lead (Pb). Based on ambient air monitoring data, the U.S. EPA has classified the island of Oahu and the State of Hawaii as being in attainment of the federal standards. In addition, pollutant concentrations within the state comply with state standards, which are more stringent than NAAQS.

The Ewa Plain contains the largest industrial park in the State of Hawaii, the James Campbell Industrial Park (CIP). NASBP is located adjacent to and east of CIP. Businesses within the park provide a wide range of manufacturing, import/export, power generation, construction, and waste management services. CIP provides 100 percent of the state's oil refining, most of the state's gas manufacturing, and 40 percent of Oahu's electrical generation, among other services (Risk Management Associates, Spring 1997). Consequently, stationary-source air pollution emissions are concentrated in this area. Air monitoring data collected by DOH, Clean Air Branch, demonstrate that national and state standards have been met in the region.

However, neighboring communities and schools are concerned that emissions from CIP are causing adverse health effects. Subsequent to an upset process condition at a CIP refinery in 1995, and in response to community concerns, DOH Hazard Evaluation and Emergency Response Office collected air samples and analyzed them for a specific set of 130 chemical constituents, including reduced sulfur compounds. Sampling and analyses were conducted to determine if air emissions from CIP constituted a health threat to CIP workers or to nearby residents. Forty air samples were collected at nine locations in and around CIP during February and March 1996 and in January 1997. Chronic or long-term health effects from the low levels of these compounds are likely to be less than or similar to those in any typical coastal urban area in the U.S. (Department of Health, November 1997). No significant differences in concentrations (in parts per billion) between upwind and downwind samples, relative to CIP, were observed.

Within NASBP, sources of existing emissions consist of mobile- and stationary-type sources. Mobile sources include aircraft engines and vehicle engines. Stationary sources include boilers and generators.

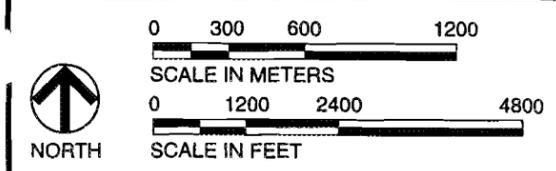
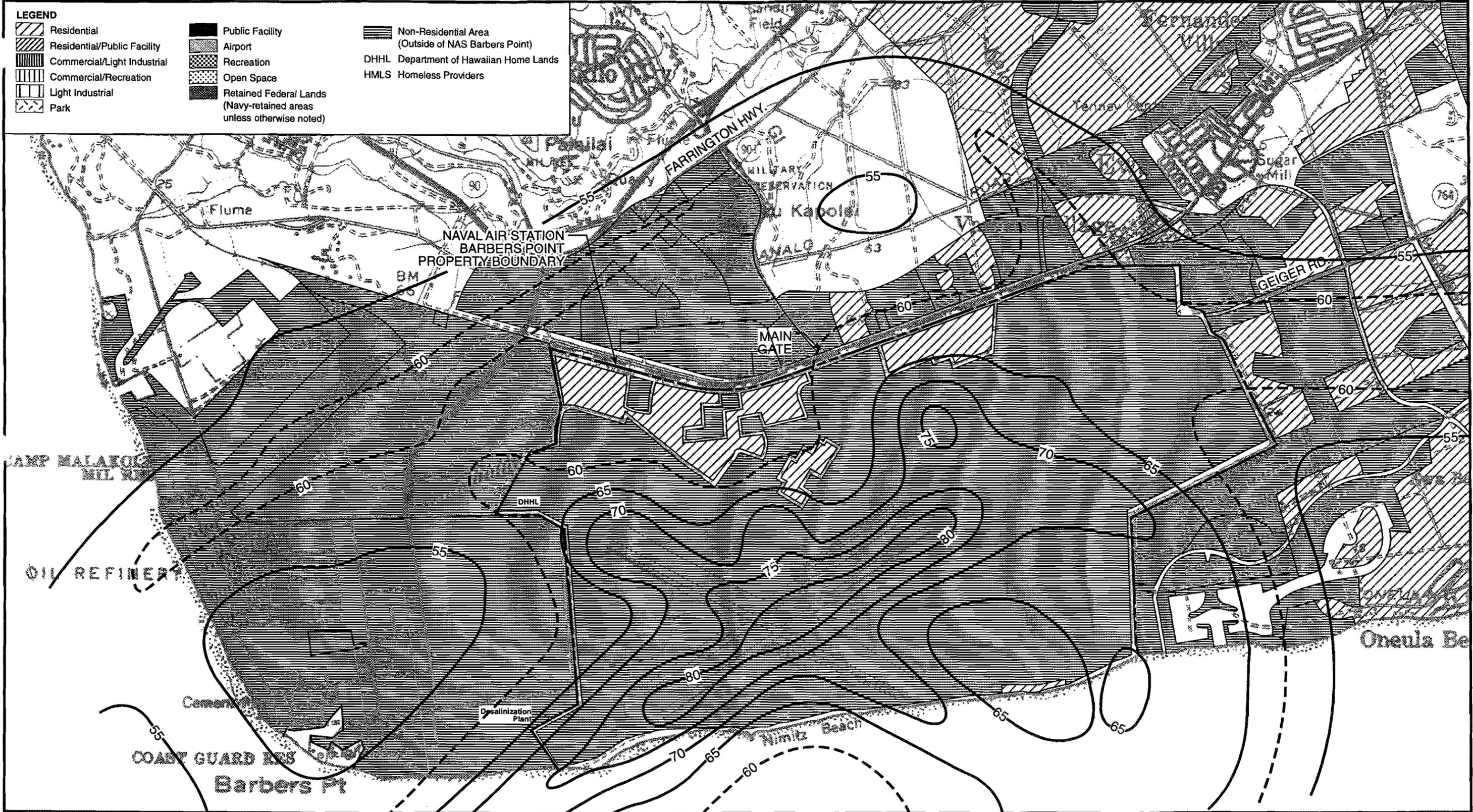
3.1.5 Noise

Noise impacts are dependent upon (1) the sound pressure being generated, measured in decibels (dB) and usually based on an A-weighted scale (dBA), which simulates the range of sound that is audible by the human ear; (2) the distance to the affected individual; (3) the medium present between the source and the affected individual; and (4) the period of exposure. The equivalent sound level (Leq) is the energy produced by these sound pressures and averaged over a defined period of time.

The day-night average sound level (DNL) is commonly used for measuring environmental noise in general and for relating the acceptability of the noise environment for various land uses. The DNL represents the 24-hour average sound level for an average day, with nighttime noise levels (10:00 p.m. to 7:00 a.m.) increased by 10 decibels (dB) prior to computing the 24-hour average.

The predominant source of noise at NASBP during 1993 baseline conditions and at the present time is aircraft performing takeoff and landing operations at the airfield. The most recent noise study for NASBP is in the *1989 Naval Air Station Barbers Point Air Installations Compatible Use Zones (AICUZ) Noise Contours and Supporting Data* (Harris Miller & Hanson, Inc., July 1989). This study reflected the noise impacts associated with 1987 aircraft operations at NASBP and Honolulu International Airport. Noise contours are shown in Figure 3.1-2. Based on the 1989 AICUZ noise contours, noise levels range from over 80 DNL on and immediately adjacent to the runways, to 55 DNL approximately 8,000 feet (2,438 m) from the sides of the runways. Several Navy housing and personnel support facilities occur within the 60 DNL contour, which means that these populations may be exposed to sound levels greater than 60 DNL. Outside the boundaries of the installation, land uses, including residential and school, are compatible with noise levels.

Since 1987, the number of aircraft operations at NASBP has decreased; a 24 percent decline in the number of annual aircraft operations occurred between 1987 and 1993 (Table 3.1-1). While the noise impacts are not only a function of the number of aircraft, a decline of this magnitude would be expected to cause a decrease in noise levels. Hence, background noise levels during 1993 baseline conditions were lower than those shown in Figure 3.1-2.



Sources: NASBP Land Use: Department of the Navy, PACNAVFACENGCOM, *Proposed Land Use Map* (August 1991);
 Land Use Outside of NASBP: The Estate of James Campbell, *Kapolei Area Long Range Master Plan* (October 1997);
 Noise Contours: HMM & H, Inc. (July 1989) as used in *Kalaeloa Airport Master Plan Draft Report* (Aries Consultants Ltd., June 1996);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 3.1-2
NOISE CONTOURS: 1987 CONDITIONS
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

**Table 3.1-1
NASBP Annual Aircraft Operations, 1983 to 1993^a**

Year	Military	Civilian	Total	Percent Change Annually
1983	104,497	16,100	120,597	-
1984	111,377	10,372	121,749	+1
1985	94,226	10,362	104,588	-14
1986	93,413	4,324	97,737	-7
1987	88,990	1,027	90,017	-8
1993 ^b	67,706	684	68,390	-24 (1987 to 1993 change)

^a Harris Miller Miller & Hanson, Inc. (July 1989) *Naval Air Station Barbers Point Air Installations Compatible Use Zones (AICUZ) Noise Contours and Supporting Data.*

^b Aries Consultants Ltd. (June 1996) *Kalaeloa Airport Master Plan Draft Report.*

3.1.6 Visual Resources

NASBP is a relatively flat, desert-like expanse of land that has been highly altered by development. Low scrub-forested areas separate the developed areas from natural forest and the shoreline. The shoreline is typically a white sandy beach with shallow reef flat that provides opportunities for swimming, fishing, and sunbathing.

Visual landmarks and significant vistas identified in the *Ewa Development Plan* (C&C of Honolulu, March 1996) which are relevant to NASBP include distant vistas of the shoreline from the H-1 Freeway, mountain and ocean views, and views of central Honolulu and Diamond Head. The Development Plan provides guidance for conserving open space and scenic vistas at NASBP, which has been designated a Special Area in the Ewa region. The plan advocates the addition of a major regional park that provides coastal recreation facilities, a lateral public shoreline access path, and habitat preserves. A minimum 60-foot building setback, preferably 150 feet, from the shoreline is recommended. Also recommended are streetscape plantings to screen views to all service, parking, and industrial areas, as well as special landscape treatment of shoreline recreation areas.

3.1.7 Transportation

3.1.7.1 Air Transportation

Honolulu International Airport (HIA) is Oahu's primary airport for goods, services, and passengers. In 1993, total aircraft operations were 358,505. Out of this total, 185,959 were air carriers; 53,742 were air taxis; 96,504 were general aviation; and 22,300 were military aircraft.

NASBP presently serves military aircraft only. In 1993, there were 68,390 aircraft operations. Of these, 684 were civilian aircraft and 67,706 were military aircraft. Another breakdown of the

68,390 total aircraft operations reveals that 78 percent were Navy or Marine Corps, 21 percent were other military aircraft, and 1 percent were air carrier and general aviation aircraft.

3.1.7.2 Marine Transportation

Barbers Point Deep Draft Harbor, managed by State DOT, is located in CIP, approximately 3 miles (4.8 kilometers) from the industrial center of NASBP. The harbor covers 92 acres (37.3 hectares) and is 38 feet (11.6 meters) deep. There are plans to increase the size of the harbor in the near future. Road access to the harbor is through CIP along Kalaeloa Boulevard, which links with Farrington Highway and H-1 Freeway to the northeast.

Vessel traffic in the harbor has varied widely over the past six years, from a low of 167 vessels in 1992 to a high of 820 vessels in 1994. The amount of material transported through the harbor ranged from about 1.5 million short tons (1.4 million metric tons) in 1992 up to about 3 million short tons (2.7 million metric tons) in 1997. Available space at the harbor includes a barge berth inside the entrance channel, Pier P-4 occupied by a ship repair and dry dock facility, a ferry terminal, and Piers P-5 and P-6. The latter piers are 1,600 contiguous feet long (Memorandum for the Record, October 14, 1997). With the planned new development at this harbor, increases in volumes of material and area for docking are expected.

3.1.7.3 Roads and Traffic

NASBP is one of the largest traffic generators in the Ewa District. The base is a major employment center and contains about 1,200 housing units. Roadway access is limited to two security-controlled entry points. Fort Barrette Road is the main (north-central) access point and provides access to the H-1 Freeway at the Makakilo interchange, as well as to the developing business and residential areas of the City of Kapolei. Geiger Road is the secondary entry point and provides access to the Iroquois Point military facilities, the communities along Fort Weaver Road, and to the H-1 Freeway via the Kunia interchange. Figure 3.1-3 illustrates the roadways.

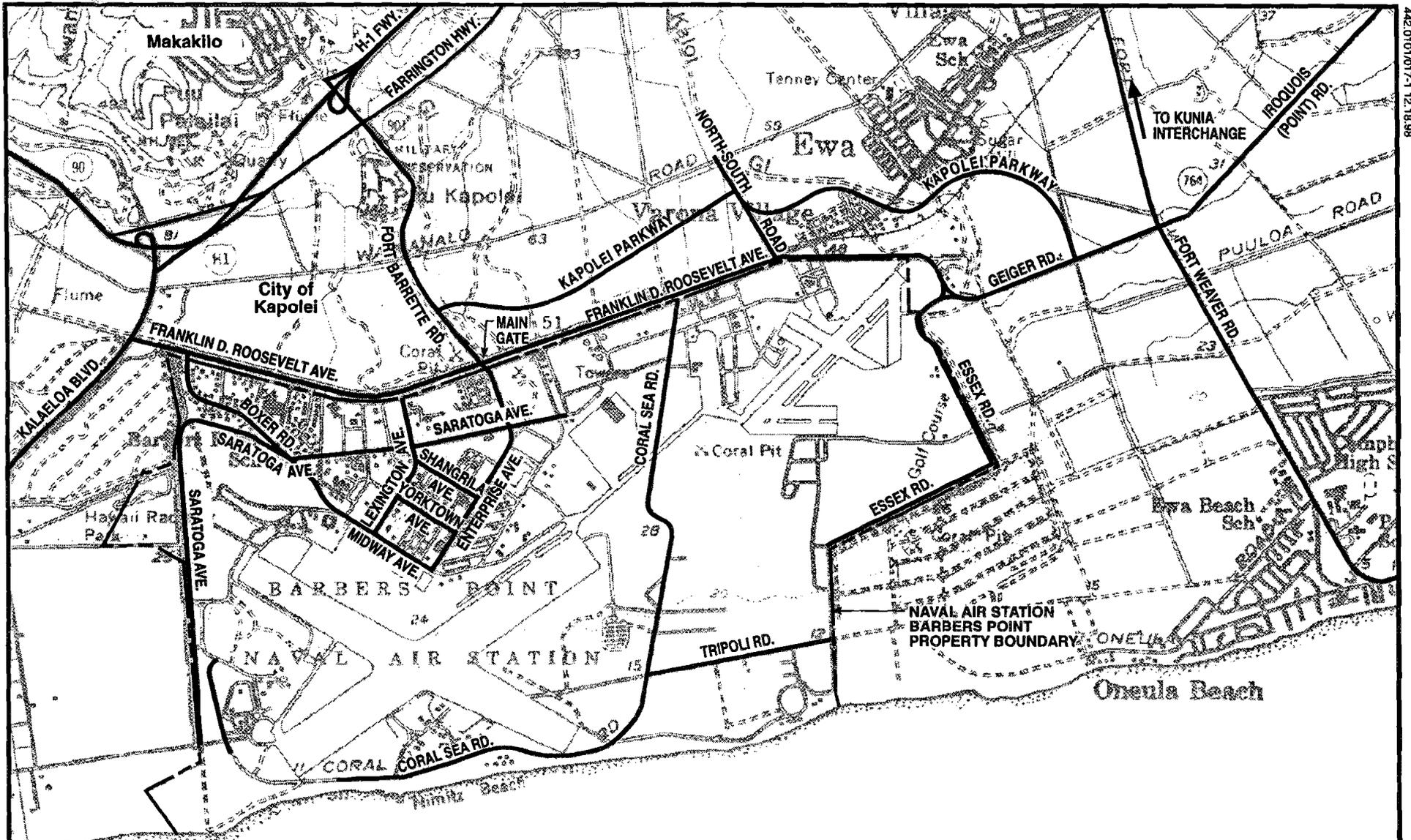
Regional Roadways

Six major regional roadways serve NASBP. Descriptions of these regional roadways are provided in Table 3.1-2 and illustrated in Figure 3.1-3.

H-1 Freeway is the major east-west corridor, with peak-hour, peak-direction volumes of about 2,800 vehicles. Another east-west connector, Farrington Highway, accommodates large volumes of traffic in the Kapolei area and farther west between the H-1 Freeway terminus and the Waianae coast. Fort Weaver Road and Kalaeloa Boulevard are the most heavily traveled roadways in the Ewa area south of the freeway. Fort Weaver Road serves primarily a residential area, while Kalaeloa Boulevard serves an employment area; hence, peak-hour traffic associated with commuters occurs primarily in one direction (versus both) on each roadway.

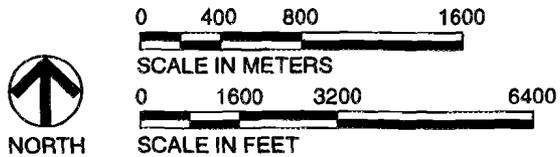
NASBP Roadways

Within the installation, Enterprise Avenue and Franklin D. Roosevelt Road are the two major roadways. These two roads provide access between the two gates and most of the major activity areas within the installation. A system of collector streets and local streets provides circulation within the base. A summary of these streets is provided in Table 3.1-3.



442.01/01/17.1-12.18.98

Source of base map: USGS Topographic Map of the Island of Oahu (1970).



**Figure 3.1-3
EXISTING ROADWAYS**

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

**Table 3.1-2
Summary of Regional Roadways Supporting NASBP**

Regional Road	Direction of Road	Number of Lanes	Comments
Fort Barrette	North-South	One lane in each direction between NASBP and Farrington Highway	Speed limit is 45 miles per hour (mph) near the base; 40 mph near Farrington Highway.
Geiger Road	East-West	One lane in each direction between NASBP and Fort Weaver Road. Four lanes near Fort Weaver Road.	Speed limit is 35 mph.
Fort Weaver Road	East-West	Two lanes in each direction.	Connects communities in eastern Ewa District to Farrington Highway and H-1 Freeway. Speed limit is 45 mph.
H-1 Freeway	East-West	Three lanes in each direction.	Connects Ewa to central Honolulu and other areas of Oahu.
Farrington Highway	East-West	One lane in each direction between Fort Weaver Road and Fort Barrette Road; two lanes in each direction between Fort Barrette Road and through the City of Kapolei.	Provides major regional route westward from the terminus of the H-1 Freeway near Kalaeloa Boulevard.
Kalaeloa Boulevard	North-South	Two lanes per direction from the H-1 Freeway to Malakole Avenue; 60-foot-wide street between Malakole Avenue and Komohana Avenue; 40-foot-wide street south of Komohana Avenue.	Provides access from the H-1 Freeway to CIP area west of NASBP. Currently, there is no linkage open to the base from this roadway.

**Table 3.1-3
Summary of Roadways on NASBP**

NASBP Road	Direction of Road	Number of Lanes	Comments
Enterprise Avenue	North-South	One lane per direction; 30-foot-wide pavement between gate and Saratoga Avenue. Two lanes per direction with 40-foot-wide pavement between Saratoga and Midway.	One of two major roadways on NASBP; southern extension of Fort Barrette Road into the base. Provides access to the major operations and community support areas located north of the runways. Speed limit is 30 mph.
Franklin D. Roosevelt Avenue	East-West	One lane per direction; 28-foot-wide pavement. Left turn lanes are provided at key intersections between Geiger Road and Enterprise Avenue.	One of two major roadways on NASBP. Provides the only continuous east-west roadway across the base from Geiger Road Gate. Speed limit is 35 mph east of Enterprise Avenue.
Saratoga Avenue	East-West	One lane per direction; 28-foot-wide pavement.	Collector street. Provides east-west circulation within "downtown" area of base and connects downtown to the base housing areas.
Lexington Avenue	North-South	One lane per direction; 28-foot-wide pavement.	Local street. Provides north-south access to the western portion of the operations and community support area.
Yorktown and Shangrila Avenues	East-West	One lane per direction; 20-foot-wide pavement	Local street. Provides east-west access within the downtown area.
Midway Avenue-Boxer Road	North-South	One lane per direction; 28-foot-wide pavement.	Local street. Connects the family housing area in the west to the operations and community support area.
Coral Sea Road	North-South	One lane per direction; pavement widths vary from 18 to 28 feet.	Collector roadway. Provides a continuous north-south roadway east of the runways to the U.S. Coast Guard area. Speed limit is primarily 35 mph.

Table 3.1-3 (continued):

NASBP Road	Direction of Road	Number of Lanes	Comments
Essex Road	North-South	One lane per direction; pavement widths of 28 feet in the northern segment and 20 feet in the southern segment.	—
Tripoli Road	East-West	One lane per direction with a road width of 20 feet.	Local street. Connects Essex and Coral Sea roads and provides access to the eastern oceanfront activity areas. Speed limit is 35 mph.

Other roadways in the lower activity portions of the base are narrow, with pavement widths of 20 feet or less. The roadways within the southwest area of the base are restricted to use only by authorized vehicles. Several roadways in this area are unpaved.

On NASBP, there are no traffic signal controls. Most intersections are controlled by stop signs, and several have four-way stop sign controls, including the intersection of Enterprise Avenue and Franklin D. Roosevelt Avenue.

Traffic Conditions

The present transportation system in Ewa has sufficient capacity for existing traffic volumes during peak-hour traffic; however, this network of roads is affected by the bottlenecks and lack of capacity on the corridor from Pearl City to downtown Honolulu (C&C of Honolulu, March 1996). These regional transportation planning considerations are being evaluated by the Oahu Metropolitan Planning Organization (OMPO), a joint city-state agency responsible for planning and use of federal transportation funds. In addition, a consortium of landowners and developers has been working to identify Ewa highway improvement needs and how much of the costs each developer must contribute. The update to the Ewa Region Highway Transportation Master Plan (1992) will document the consortium’s findings, along with providing a study of the proposed North-South Road and an analysis of methods for financing these improvements.

On-base traffic conditions were characterized using 1995 data because 1993 data were not available. Use of 1995 conditions should result in more accurate 2020 projections because the uncertainty associated with applying traffic growth factors over two years (between 1993 and 1995) is eliminated. The worst traffic conditions occurred during the morning peak hour (6:30 a.m. to 7:30 a.m.) at the four-way stop-controlled intersection just inside the main gate. South-bound traffic entering the base on Fort Barrette Road exceeded capacity of the intersection (delays of 45 seconds or more and characterized with a level of service [LOS] of F); the other approaches operated at acceptable levels. Military police often directed traffic during this time to expedite traffic flow. At the intersection of Saratoga Avenue and Enterprise Avenue, the number of vehicles failing to clear the traffic signal during the green phase was noticeable (delays at 20.1 to 30.0 seconds and

characterized with an LOS of D). Based on 1995 levels of activity, an estimated 27,300 average daily trips (ADT) on a typical weekday were generated.

Mass Transit

In 1994, Oahu Transit Services (OTS), which operates TheBus under contract to the Honolulu Public Transit Authority (HPTA), assigned about 35 buses to the Ewa area, which includes NASBP. However, the OTS buses do not enter NASBP. Based on the findings in HPTA's *Comprehensive Bus Facility and Equipment Requirements Study* (1994), an additional 53 buses were planned to be assigned to Ewa for a total of 88 buses. The additional buses would be used to increase capacity, frequency of service, and routes between Ewa and Honolulu and in the immediate Ewa area. Additionally, the Leeward Oahu Transportation Management Association (LOTMA) sponsors an express bus service along Fort Weaver Road to Honolulu, with one morning and one afternoon bus trip.

The impacts of proposed reuse on mass transit are not evaluated further in this DEIS because the presence of, and level of, mass transit are not requirements for development. Use of mass transit would provide an additional measure, beyond that identified in Section 4.1.7.2, for reducing impacts on traffic.

3.2 BIOLOGICAL RESOURCES

This summary of biological resources at NASBP was based primarily on the *Environmental Baseline Survey* conducted by Ogden Environmental and Energy Services, Inc., for PACNAVFACENGCOM, June 1994. In addition, information was gathered from the following documents:

- *Chamaesyce Skottsbergii Botanical Survey of the Naval Air Station Barbers Point, Oahu, Hawaii*, conducted by A. Whistler for Belt Collins Hawaii for PACNAVFACENGCOM, February 1998
- *Natural Resources Management Plan, Naval Air Station Barbers Point*, conducted by The Traverse Group, Inc. (TGI), January 1988
- *Flora and Fauna Report*, conducted by Botanical Consultants for PACNAVFACENGCOM, December 1984
- *Ewa Plains Botanical Survey*, conducted by W. P. Char and N. Balakrishnan for the U.S. Department of Interior, November 1979

Biological resources of concern are threatened and endangered species and sensitive or critical habitat. Because migratory birds are a concern for land managers outside of federal lands, they are also addressed. Threatened and endangered species and migratory birds occur in both terrestrial and marine environments on and adjacent to NASBP.

Recent field surveys have led to the identification of new locations where intensive surveys for endangered plants are planned (U.S. Fish and Wildlife Service, October 22, 1997). This information has also been incorporated into the following summary.

3.2.2 Terrestrial Flora

The dominant vegetation zone on the base is *kiawe* and lowland scrub. Other vegetation zones include coastal strand, coastal salt flat, seasonal fresh-water pond, sinkholes, mangrove swamp (surrounding Ordy Pond), and marine wetland (Figure 3.2-1). One-hundred seventy species of plants have been identified on the base. (Botanical Consultants, December 1984).

Two listed endangered plant species exist on the base:

- The endemic Ewa Plain 'akoko shrub (*Chamaesyce skottsbergii* var. *skottsbergii*) was federally listed as endangered on August 24, 1982 (U.S. Department of the Interior [U.S. DOI], USFWS, 1982). It occurs in coastal vegetation and dry shrub land. The largest population of 'akoko plants occurs on land that will be transferred to USFWS. Estimates made in 1994 put this population at between 100 and 500 individuals (Whistler, February 1998). The USFWS believes that there are eight additional 'akoko plants on the NAS property (U.S. DOI, USFWS, November 3, 1998). These specimens are found in at least three separate locations.

Signs are posted in the area of the largest populations to inform visitors of the presence of endangered plant species.

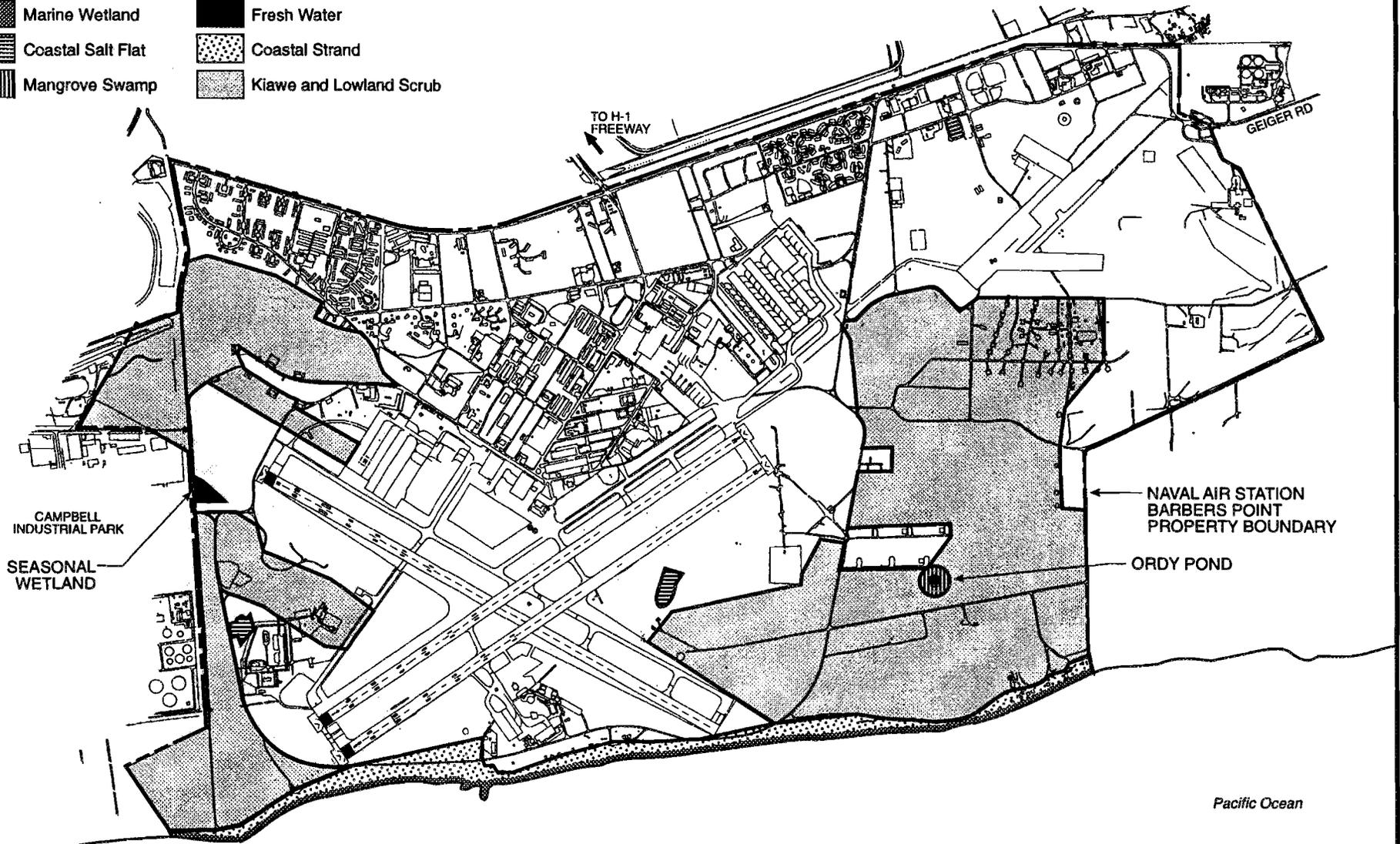
- The endemic round-leafed chaff-flower shrub (*Achyranthes splendens* var. *rotundata*) was federally listed as endangered on March 26, 1986 (Ogden, 1994). It occurs at low elevations in open, dry forest remnants, open thickets, on talus or rocky slopes, or on coralline plains (Wagner, Gerbst, and Sohmer, 1990). Three populations exist on the Ewa Plain; two are in CIP and one is at NASBP. In 1991, approximately 86 individuals were reported in a 287-square-yard (240-square-meter) area in the southwest corner of the base (see Figure 3.2-2). Signs indicate the presence of the shrub.

In addition, *pua pilo* (*Capparis sandwichiana* var. *zoharyi*), an endemic shrub federally listed as a species of concern, occurs in *kiawe* and lowland scrub zones (Ogden, 1994), and is known to exist in the same area as the *Achyranthes splendens* var. *rotundata* (Memorandum for the Record, June 22, 1998).

Other endemic plant species (native plants found only in Hawaii) occurring at NASBP include the sub-shrub *hinahina* (*Heliotropium anomalum* var. *argenteum*) and the herb *nama* (*Nama sandwichensis*) in the coastal strand zone, and the small shrub-like sandalwood tree (*Santalum ellipticum*) in the *kiawe* and lowland scrub zone (Ogden, 1994). Indigenous plant species (native plants found in Hawaii and elsewhere) in the coastal strand zone include the seaside heliotrope herb (*Heliotropium currassavicum*) and the 'ohelo kai shrub (*Lycium sandwichensis*).

LEGEND

-  Marine Wetland
-  Coastal Salt Flat
-  Mangrove Swamp
-  Fresh Water
-  Coastal Strand
-  Kiawe and Lowland Scrub



Source: Ogden (1994).

0 300 600 1200

SCALE IN METERS

0 1200 2400 4800

SCALE IN FEET



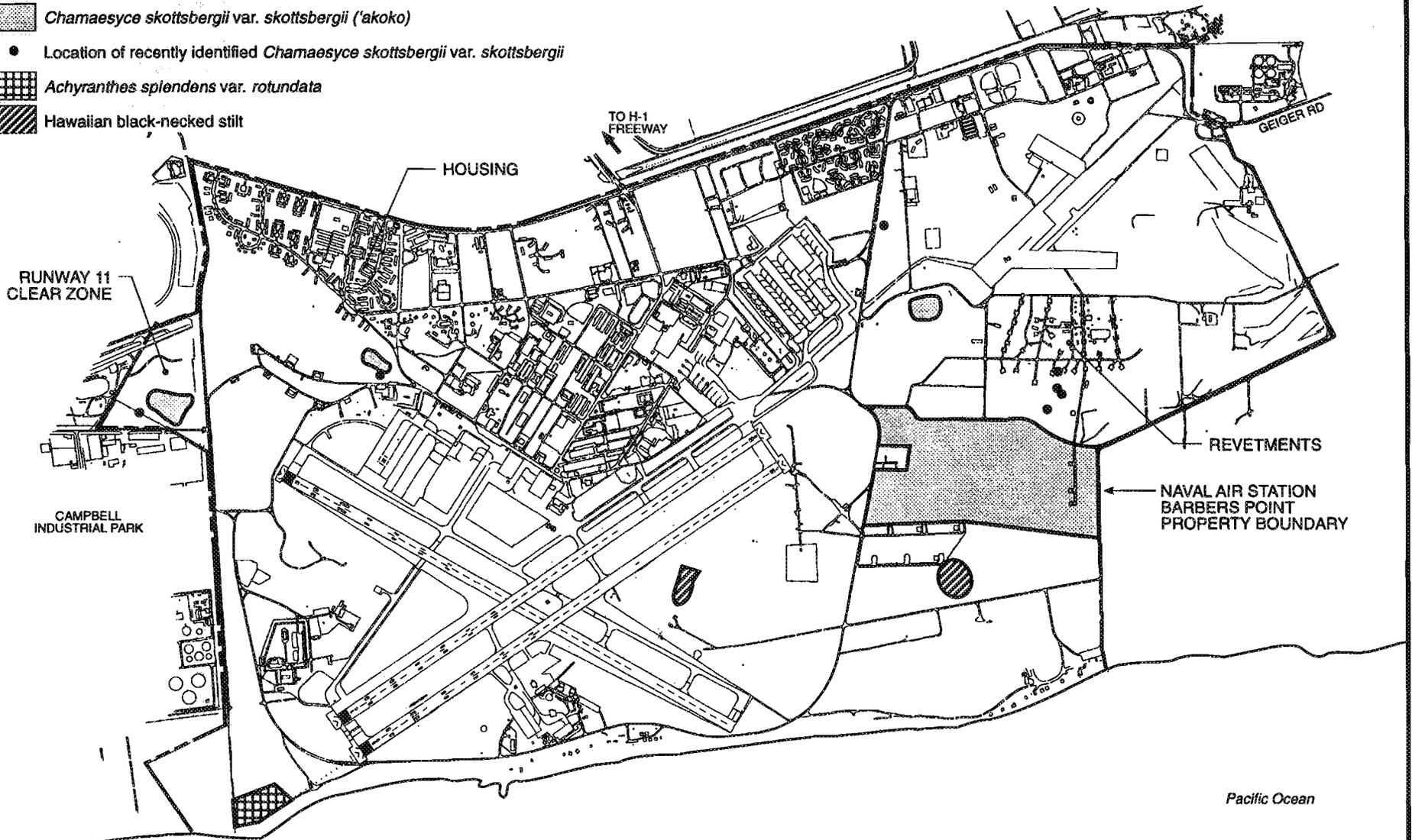
NORTH

Figure 3.2-1
LOCATION OF VEGETATION COMMUNITIES

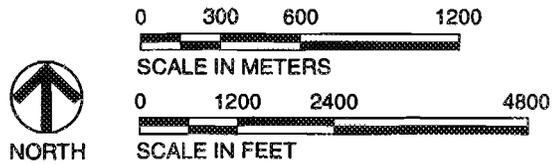
EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

LEGEND

-  *Chamaesyce skottsbergii* var. *skottsbergii* ('akoko)
- Location of recently identified *Chamaesyce skottsbergii* var. *skottsbergii*
-  *Achyranthes splendens* var. *rotundata*
-  Hawaiian black-necked stilt



Source: Ogden (1994) and Whistler, A. (February 1998).



**Figure 3.2-2
LOCATION OF ENDANGERED SPECIES**

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

3.2.2 Terrestrial Fauna

Birds are the dominant wildlife on the base, as is common for all the Hawaiian Islands. Twenty-three species were identified during a survey conducted in 1984: 17 were ubiquitous, introduced species; five were indigenous; and one was endemic (Botanical Consultants, 1984). Since that survey, one endangered bird species has been sighted (Ogden, 1994).

Introduced species: Of the 17 ubiquitous species, these five occur most commonly: zebra dove (*Geopelia striata*), Japanese white-eye (*Zosterops japonicus*), northern cardinal (*Cardinalis cardinalis*), red-crested cardinal (*Paroaria coronata*), and red-vented bulbul (*Pycnonotus cafer*) (TGI, 1988).

Indigenous species: The five indigenous species occurring at NASBP are the black-crowned night heron (*Nycticorax nycticorax hoactli*), great frigate bird (*Fregata minor palmerstoni*), Pacific golden plover (*Pluvialis fulva*), sanderling (*Calidris alba*), wandering tattler (*Heteroscelus incanus*), and ruddy turnstone (*Arenaria interpres*). The latter four are migratory and considered regular visitors to Hawaii.

Endemic species: One endemic species that is a candidate for federal listing, the 'elepaio (*Chasiempis sandwichensis gayo*), was identified during the 1984 survey; no other sightings have been confirmed during subsequent surveys on the base (Ogden, 1994). Although the findings in the 1994 survey were never corrected in the document, the 'elepaio does not nor has it ever existed at NASBP. The reported 1984 sighting was in error (Memorandum for the Record, June 22, 1998).

Endangered species: The Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*), on the federal and state endangered species lists, was observed at Ordy Pond during November and December 1993 site visits by USFWS and PACNAVFACENGCOM natural resources personnel (see Figure 3.2-2) (Ogden, 1994).

Ordy Pond, an anchialine pond, and the only permanent water body on the base, and the coastal salt flats (see Figure 3.2-1) are frequented by the Hawaiian black-necked stilt and migratory species. In addition, the state listed endangered Hawaiian short-eared owl (*Asio flammeus sandwichensis*), which is federally listed as a species of concern, may occur or range over the base (Ogden, 1994).

Other wildlife: Other wildlife on base include feral dogs and cats, rodents, and mongooses. One freshwater fish species, the mosquito fish (*Gambusia* sp.), occurs at NASBP; it was introduced to Ordy Pond as a food source for the black-crowned night heron (TGI, 1988).

3.2.3 Marine Biota

Marine macroinvertebrates, found offshore of NASBP, include reef-building corals, several species of sea cucumber, sea urchins, and colonial soft corals (Ogden, 1994). Marine vertebrates include reef fish, although abundance and diversity are low. The most common are triggerfish (*Balistidae*) and hawkfish (*Cirriidae*). The threatened green sea turtle (*Chelonia mydas*) is known to frequent the area immediately offshore of NASBP. Up to 22 green sea turtles were observed offshore during a survey conducted in 1992 (Ogden, 1994). It is likely that the turtles feed on seaweed, which is abundant in this area. The humpback whale (*Megaptera novaeangliae*), a state and federally listed

endangered species, may be present in the vicinity from November to May; however, densities offshore of NASBP are among the lowest in Hawaii (Ogden, 1994).

3.2.4 Sensitive Habitats

Sensitive habitats at NASBP include freshwater wetlands, mangrove swamps, coastal salt flats, and the entire coastline, which is marine wetland with intertidal subsystem (see Figure 3.2-1) (TGI, 1988). These wetlands support endangered species. The two major inland wetlands are Ordy Pond (planned for transfer to USFWS) and a second freshwater wetland which is seasonal (planned for reuse).

Ordy Pond is approximately 3 acres (1.2 hectares) with less than 1 acre (0.4 hectare) of open water. It is the only anchialine pond known to exist on NASBP (Memorandum for the Record, October 21, 1998.) Visual evidence suggests that the pond is eutrophic, but there is no apparent source of nutrient enrichment. The open water is surrounded by a near circumferential band of American mangrove (*Rhizophora mangle*) and other introduced species. The pond contains the only freshwater fish on the base, the introduced mosquito fish, fed upon by Hawaii's only non-endangered native waterbird, the black-crowned night heron.

A seasonal freshwater wetland is located on the western boundary of the base (see Figure 3.2-1). This is the only other freshwater wetland on the base that may occasionally provide habitat for endangered and migratory birds.

A large coastal salt flat, approximately 2 acres (0.8 hectare), is located in the central area of the base between Runway 4R-22L and Taxiway K (see Figure 3.2-1), and a similar, smaller coastal salt flat is located on the western boundary of the base. These barren, salt-encrusted mudflats have a wide border of pickle weed (*Batis maritima*) and nearly circumferential stands of pluchea (*Pluchea odorata*), an aggressive introduced plant species. The coastal salt flats often contain standing water during the rainy season, and sometimes contain standing water at other times of the year. An abundance of bird tracks observed in the large salt flat indicates that it is frequented by shorebirds, including the Hawaiian black-necked stilt.

3.3 CULTURAL RESOURCES

This summary of cultural resources at NASBP was based primarily on Appendix A in *Excess and Surplus Areas of NAS Barbers Point: Recommendations for Specific Sites in Cultural Resource Management Plan: Naval Air Station, Barbers Point, Navy Retention Lands and Surplus and Excess Lands* (International Archaeological Research Institute, Inc. [IARII], 1997a). Additional background information was available from *A Cultural Resource Inventory of Naval Air Station - Part I: Phase I Survey and Inventory Summary* (IARII, 1997b), and from an environmental baseline survey (Ogden, 1994).

Cultural resources on surplus lands (reuse areas) include 62 archaeological sites and 64 historic structures eligible for listing on the National Register of Historic Places (NRHP). Eligibility for listing in the NRHP has been evaluated in accordance with the criteria established under 16 U.S.C. §470, as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- (a) *that are associated with events that have made a significant contribution to the broad patterns of our history; or*
- (b) *that are associated with the lives of persons significant in our past; or*
- (c) *that embody the distinctive characteristics of a type, period, or method of construction, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
- (d) *that have yielded, or may be likely to yield, information important in prehistory or history.*

3.3.1 Archaeological Sites

Permanent human settlement of the Ewa Plain probably occurred about 1250 to 1450 A.D. The earliest recorded archeological survey of the region was conducted by J. Gilbert McAllister in 1930. Since then, numerous archaeological sites have been discovered and recorded. Archaeological sites at NASBP include the following types:

- Hawaiian sites: habitation and agricultural features, possible *kuleana* features, possible religious structures, human skeletal remains or possible burial features, modified sinkholes, and trail features.
- Ranching, sisal cultivation, and early 20th century habitation sites.
- World War II (WW II) military components: defensive, training, and bivouac features.

Based on the evaluation criteria in 16 U.S.C. §470, 62 archaeological sites eligible for listing in the NRHP are located on surplus land. These are listed in Table 3.3-1.

**Table 3.3-1
Archaeological Sites Eligible for Listing in NRHP**

Site No.	No. of Features ¹	Description	NRC ²
1717	6	Hawaiian habitation complex	D
1718	5	Hawaiian habitation complex	D
1719	5	Hawaiian habitation complex	D
1720	2	Hawaiian habitation complex	D
1721	8	Hawaiian habitation complex	D
1722	12	Hawaiian habitation complex	D
1723	8	Hawaiian habitation complex; one feature contains human remains	C, D

Table 3.3-1 (continued):

Site No.	No. of Features ¹	Description	NRC ²
1724	9+	Hawaiian habitation complex; two features contain human remains	C, D
1725	17	Hawaiian habitation complex; one feature contains human remains	D
1726	5+	Hawaiian habitation complex; one feature contains human remains	D
1727	2	Cultural Sink	D
1730-1735	161	Hawaiian habitation complex; one feature of Site 1735 contains human remains	A, C, D
1736	37	Hawaiian habitation/agricultural complex/kuleana	A, C, D
1737	23	Hawaiian habitation complex/kuleana	A, C, D
1747	1+	Sinkhole complex	D
1748	13+	Hawaiian habitation/agricultural complex	D
1749	5	Hawaiian habitation w/ranch/military(?)	D
1750	9+	Hawaiian habitation/agricultural complex w/ 20th century component	D
1752	42+	Hawaiian habitation/agricultural complex; one feature contains human remains	A, C, D
1753	51+	Hawaiian habitation complex; three features contain human remains	A, C, D
3722	1	Sisal wall	D
4548-4567	75	Hawaiian agricultural complex	D
4701	1+	Early 20th century storage	D
4702	152	Hawaiian agricultural complex	D
5093	6+	WW II portable pillbox, roads, pads	D
5097	5	WW II anti-aircraft battery complex	A, C, D
5098	5	Sinkhole complex; two features contain human remains	D
5108	15	Sinkhole complex	D
5112	12	WW II training	A, D

Table 3.3-1 (continued):

Site No.	No. of Features ¹	Description	NRC ²
5114	x	WW II plane wreck	A, D
5115	8	WW II sentry post and wall, defensive features	A, D
5117	6	Sisal wall	A
5119	7	Hawaiian agricultural complex	D
5123	x	Sinkhole complex	D
5124	3+	WW II anti-aircraft battery, machine gun positions	A, D
5125	7	WW II pillboxes	A, D
5129	22	Hawaiian habitation complex	D
5130	x	Sinkhole complex	D

¹ x = features present but number unknown.

² National Register Criteria: A, B, C, D (see Section 3.3).

3.3.2 Historic Structures

Based on the evaluation criteria in 16 U.S.C. §470, 64 structures eligible for listing in the NRHP are located on surplus land. These structures are listed in Table 3.3-2.

Table 3.3-2
Historic Structures Eligible for Listing in NRHP

Building No.	Name	Year ¹	Description	NRC ²
1	Administrative Office Building	1942	WW II base construction; designed by Albert Kahn & Associates	A, C
2	WW II Command Center	1943	Associated with pattern of response to December 7, 1941 attack; distinctive construction type	A, C
4	Aviation Operations and Control Tower	1942	Associated with vital function of installation during WW II	A, C
87	Portable Air Raid Shelter	1944	Distinctive construction type	C

Table 3.3-2 (continued):

Building No.	Name	Year ¹	Description	NRC ²
92	Telephone Building	1942	Associated with pattern of response to December 7, 1941 attack; distinctive construction type	A, C
94	Theater	1943	Associated with broad patterns of Navy WW II base construction; distinctive type and period of construction	A, C
110, 111	Maintenance Hangars	1942	Designed by Albert Kahn & Associates; associated with broad patterns of Navy WW II base construction; distinctive construction type	A, C
115	Torpedo and Bombsight Shop and Storehouse	1942	Associated with broad patterns of Navy WW II base construction, distinctive construction type	A, C
155, 188-9, 623, 626-7, 695-6	Ready Magazines	1943 to 1944	Associated with broad patterns of Navy WW II base construction; distinctive construction type	A, C
1146	MCAS Ewa Hangar	1944	Distinctive construction type	C
1248-86, 1288-90, 1301	Aircraft Revetments	1942	Associated with broad patterns of WW II airfield defenses; distinctive construction type	A, C
1506, 1523	Quonset Huts	1944	Distinctive construction type	C
1525	ARMCO Hut/Magazine	1944	Distinctive construction type	C

¹ Year of construction.

² National Register Criteria: A, B, C, D (see Section 3.3).

3.4 PUBLIC HEALTH AND SAFETY

3.4.1 On-site Contaminated Areas/Hazardous Substances

The management of potentially contaminated areas, including the process for identifying these areas, is dictated by specific regulatory programs. Regulatory programs for hazardous materials are described below.

3.4.1.1 Overall Process Used to Identify Contamination and Description of Potentially Contaminated Areas

In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. §9601 *et seq.*, existing areas of contamination must be identified and remediated to levels protective of human health and the environment (or have a proven, effective remediation under way). Compliance activities, remediation plans, and remediation activities in the reuse areas are described in the *BRAC Cleanup Plan (Draft) for NAS Barbers Point, Oahu, Hawaii* (U.S. Navy, January 1998). Areas of existing contamination could constrain the proposed reuse of the property.

Contaminated areas were identified under one of two processes and are named accordingly. Contaminated areas identified under the Community Environmental Response Facilitation Act of 1992 (CERFA), Pub. L. 102-426, are referred to as points of interest (POIs); areas identified under the Defense Environmental Restoration Program are called Installation Restoration Program (IRP) sites. The purpose of the IRP program is to identify, assess, characterize, and clean up or control contamination from past hazardous waste disposal operations and hazardous material spills at Navy and Marine Corps facilities in accordance with CERCLA.

CERFA amended CERCLA and requires the identification and documentation of uncontaminated real property at installations undergoing closure or realignment. To comply with these laws, an environmental baseline survey was performed at NASBP to identify contaminated and uncontaminated areas. Activities included extensive document reviews, regulatory agency record reviews, current and historic aerial photograph evaluations, physical reconnaissance, and personnel interviews. These activities occurred over a four-month period from August to November 1993. Findings were documented in the *Environmental Baseline Survey (EBS) Report, NAS Barbers Point, Oahu, Hawaii* (Ogden, June 1994).

The 1994 EBS Report identified 47 POIs at which past practices may have caused contamination and three IRP sites on NASBP that might require further investigation or remediation. Since then, two additional POI sites have been identified: the Transformer Network, which includes some identified POIs, and the Regional Groundwater System. These POIs are spread throughout most of NASBP. POI and IRP sites located within reuse areas and that require further action are identified in Figure 3.4-1.

Many of the sites identified in the EBS have been successfully cleaned up or sampling data have indicated that they may be used for the proposed land uses (commercial, recreation, etc.). Table 3.4-1 summarizes the cleanup status of each of the sites that requires further action and includes findings as of October 20, 1998 (Memorandum for the Record, October 20, 1998). All cleanup activities are planned for completion by end of the 2001 fiscal year.

3.4.1.2 Regulatory Programs for Hazardous Materials and Storage Tanks

3.4.1.2.1 Asbestos-Containing Materials (ACM)

The DOD BRAC policy is to repair or remove only friable, accessible, and damaged ACM. Friable asbestos is defined by the U.S. EPA as any material containing more than 1 percent asbestos, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable asbestos

is regulated under the National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 C.F.R. Part 61, Subpart M). NESHAP requires that all friable materials be removed prior to building demolition or renovation. Navy will not perform remediation if: (1) the buildings are scheduled for demolition by the transferee; (2) the transfer document prohibits occupation of the buildings prior to demolition; and (3) the transferee assumes responsibility for the management of any ACM in accordance with applicable laws.

ACM surveys conducted in 1993 and 1994 and reinspections performed in 1998 reveal the presence of ACM in reuse areas. As a result of the findings from these surveys, an Operations and Maintenance Plan that includes a strategy to manage in-place asbestos has been prepared.

3.4.1.2.2 Polychlorinated Biphenyls (PCBs)

Control of PCBs and PCB-contaminated materials is legislated by the Toxic Substances Control Act (TSCA) (40 C.F.R. Part 761). TSCA generally bans the use, manufacturing, processing, and distribution in commerce of PCBs. PCB-contamination or PCB-containing equipment is identified as such if 50 parts per million (ppm) of PCB is measured.

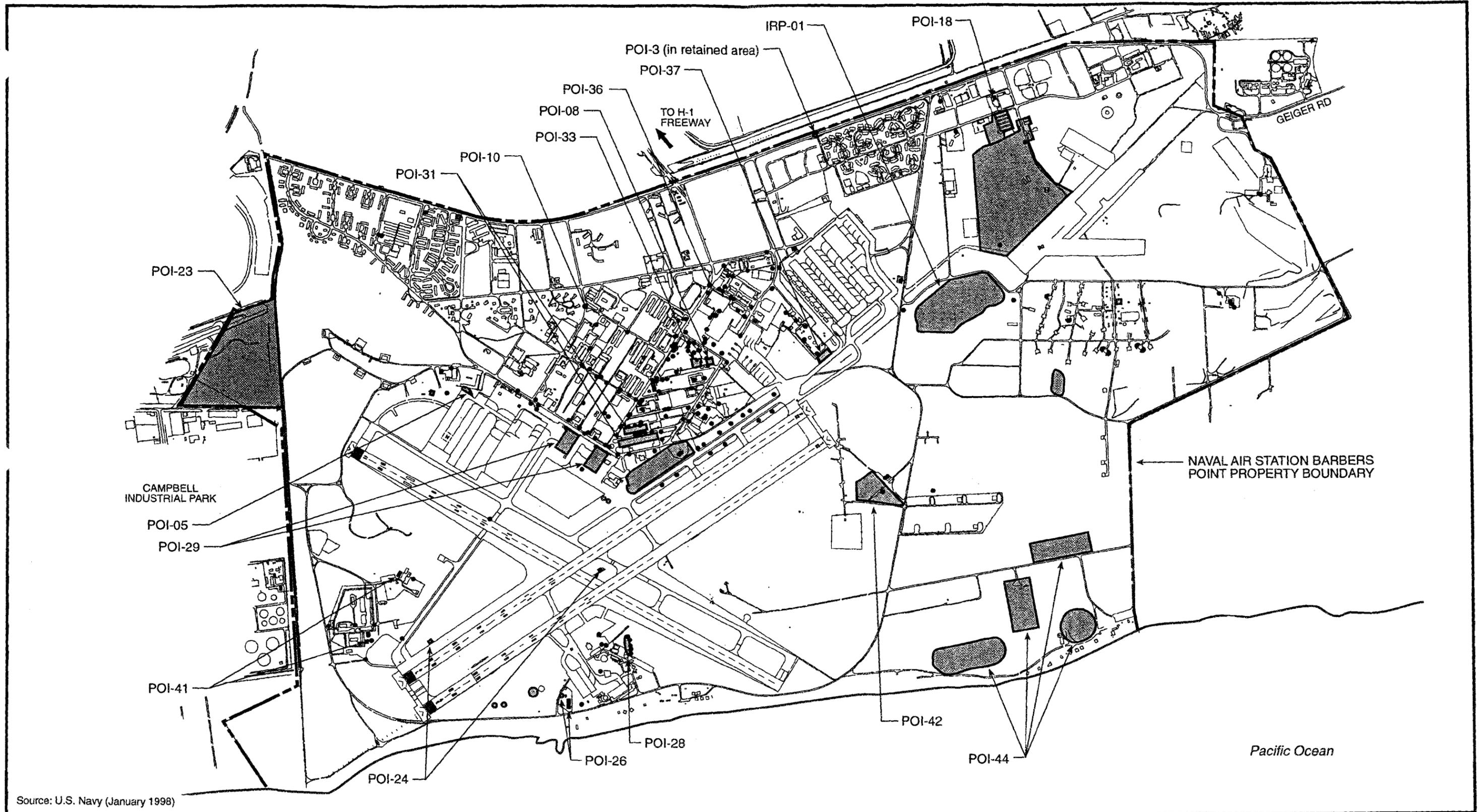
At NASBP, PCBs were used in a small percentage of pole-mounted and substation transformers. These sources have been either retrofitted (replaced with non-contaminated transformer) or retrofilled (replaced with a non-PCB dielectric fluid to flush out PCBs and conducted on an annual basis). Inventories conducted through 1996 indicate that none of the transformers contained PCBs above the TSCA-designated contamination level of 50 ppm.

Wipe and soil samples of the substations' concrete transformer pads and adjacent soils were also conducted and revealed PCB concentrations greater than the TSCA-designated contamination level of 50 ppm. Sites with PCB-contamination found on concrete or soils caused by equipment leaks are identified in Table 3.4-1 (POI-03, POI-05, POI-08, POI-10, POI-18, POI-24, POI-29, POI-31, and POI-41).

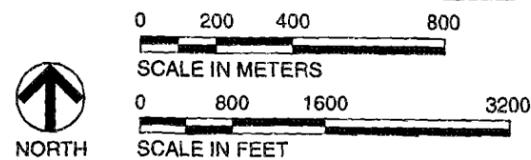
3.4.1.2.3 Lead-Based Paint (LBP)

The DOD BRAC policy is to manage LBP in a manner protective of human health and the environment, and to comply with all applicable federal, state, and local laws and regulations governing LBP and LBP hazards. Current standards for LBP address risks by focusing on the impact of LBP on children from dwellings and surrounding soil. The Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of Pub. L. 102-550), which pertains to conveyance of federal property for residential use, is only applicable to "target housing," as defined by the Act.

Samples were collected in habitable buildings in the surplus areas of NASBP. Any paint that contained more than 1.0 mg/square centimeter or 0.5 percent (5,000 ppm) was considered LBP as defined by U.S. Department of Housing and Urban Development. Results indicate that many of the 500 structures surveyed contain LBP and are within the surplus areas. Since the survey was conducted, the concentration used to define LBP was changed from 5,000 ppm to 2,000 ppm. Using the new criteria, 300 structures contain LBP.



Source: U.S. Navy (January 1998)



LEGEND

- Dry well network (POI-47)

Note: Transformer substation system (POI-48) throughout base.

Figure 3.4-1
LOCATION OF POI/IRP SITES IN SURPLUS AREAS
REQUIRING FURTHER STUDY/ACTION

EIS for the Disposal and Reuse of
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Although there is no target housing to be transferred at NASBP, Navy will comply with the provisions of the law regarding disclosure of LBP and LBP hazards, and include any available assessment data pertaining to the property being transferred and a lead warning statement in property transfer documents. There are no laws or regulations specifically applicable to LBP in non-residential areas.

3.4.1.2.4 Underground Storage Tanks (USTs)/Aboveground Storage Tanks (ASTs)

Navy manages underground fuel storage tank compliance activities in accordance with 40 C.F.R. Part 280 and the Hawaii UST Act, Section 342L. Removal of all unused USTs began in 1996. All closure notification requirements are coordinated with the State of Hawaii DOH UST Section.

Navy has requested funds to clean and assess all operational USTs when they are no longer required for base operations. Associated piping will be drained of free product and removed or abandoned in place.

ASTs are regulated under 40 C.F.R. Part 112 and Chapter 342N of the Hawaii Revised Statutes (HRS). All ASTs will be drained and cleaned upon base closure. ASTs which show indications that they may have leaked will be removed and required remediation will be performed (U.S. Navy, January 1998).

3.4.2 Hazardous Air Pollutants and Hazardous Materials at Neighboring Campbell Industrial Park

In the NASBP vicinity, which includes the neighboring CIP, hazardous materials are used and hazardous air pollutants¹ are emitted. Such emissions occur as part of the industrial and commercial operations that use raw materials to produce finished products, creating by-products used in the process. Operations include power generation and oil refining. Products used include water treatment chemicals, solvents, and other industrial and consumer products. Businesses in the approximately 1,400-acre industrial park provide services to the state and its residents, including 100 percent of the state's oil refining, most of the state's gas manufacturing (propane and synthetic natural gas), and 40 percent of Oahu's electrical generation (Risk Management Associates, Spring 1997).

Concentrating these activities in one region provides an environment for efficient exchange of materials and services and reduces transportation costs and associated environmental risks. Within the park, fuel, raw materials, waste disposal, and shipping are provided. Finished products can then be readily conveyed via major transportation routes such as the ocean via Barbers Point Harbor, Interstate Highway (H-1), and underground pipelines (for refined oil and gas) that terminate in major port facilities in Honolulu Harbor.

While the concentration of industrial and commercial businesses at CIP can reduce the costs and risk associated with transportation, the concentration of these activities coupled with the rapid growth of the neighboring communities poses obvious and understandable concerns. It is estimated that over 99,000 people reside or work within a 10-mile radius of CIP. Due to the public's concern about pollutant emissions and health impacts, a group of concerned businesses, local government

¹ Hazardous air pollutants are specific chemicals defined by the federal Clean Air Act.

**Table 3.4-1
Summary and Status of POI/IRP Sites Located Within Reuse Areas and Requiring Further Action**

Site No.	Description	Potential Contaminants	Phase Status	Risk Assessment and Further Requirements
IRP-01	Coral Sea Road Coral Pit	Extensive soil contamination by PCBs, waste oil, solvents, metals (particularly arsenic and lead); some groundwater contamination by lead	EE/CA under RI phase; removal of solid waste and/or isolated containers completed in 1997	Possible human risks under industrial and residential scenarios; removal action most likely required; no further action for ASTs
POI-03	Building 273 Transformer Station B	PCBs in soil and concrete	IRA	PCB contamination present; cleanup currently underway and will be completed in January 1999
POI-05	Building 184 Substation S184	PCBs in soil, concrete, and dry well inside of building	IRA; A-RI	PCB contamination present; cleanup currently underway and will be completed in January 1999; dry well poses no risks
POI-08	Building 91 and surrounding area Substation P	Potential release of waste fuel; PCBs in concrete	IRA	PCB contamination present; cleanup currently underway and will be completed in January 1999; potential fuel releases within the Navy retention area are being addressed under another Navy program
POI-10	Buildings 19, 1829, and BEQs (USTs and Substation S1789)	Potential release of diesel, PCBs, or fuel oil	IRA	Cleanup of PCB contamination at S1789 completed; closeout documentation will be completed in January 1999; one UST still needs to be investigated; ASTs to be assessed prior to base closure
POI-18	Building 1759 Substation S1759	PCBs in soil and concrete	IRA	PCB contamination present; cleanup currently underway and will be completed in January 1999

Table 3.4-1 (continued):

Site No.	Description	Potential Contaminants	Phase Status	Risk Assessment and Further Requirements
POI-23	Runway 11 Clear Zone	Minor impacts to soil from SVOCs and arsenic due to releases of solvents and waste oil and sandblast grit	A-RI; removal of solid waste and/or isolated containers under way	No significant risks to human health; removal of solid waste and/or isolated containers under way
POI-24	Runway Sites Transformer HH36 and Building 1611	Potential PCB or fuel release	EE/CA under RI phase; removal of solid waste and/or isolated containers required	No significant human health risks at HH36; removal of solid waste and/or isolated containers required at Bldg. 1911 ¹
POI-26	Former Sewage Treatment Plant	Low concentrations of SVOCs and PCBs in soil due to releases of oily wastes	A-RI	No significant human health risks; some additional investigation required after facilities are no longer in use (upon base closure)
POI-28	Storm water Drainage Ditch	Low concentrations of SVOCs and metals in sediments and standing water in dry wells	Design for removal	No significant human health risks in the ditch under industrial scenario; human health risks under residential use; dry well and ditch sediments not contaminating groundwater; sediments exceeding hazardous waste levels will be removed between January and March 1999
POI-29	Hangars 110 and 111, Substation S110	Potential release of oil, solvents, or fuel; PCBs present in concrete at Hangar 110 substation	A-RI; IRA	Dry wells pose no risk; dry well sediments exceeding hazardous waste levels were removed as part of compliance program; cleanup of PCB contamination at S110 completed, closeout documentation will be completed in January 1999; ASTs to be assessed prior to base closure
POI-31	Buildings 140, 141 Substation S140	Potential releases of PCBs or waste fuels; low concentrations of PCBs in concrete	A-RI; IRA	Dry well cleanup complete; PCB cleanup currently under way and will be completed in January 1999

Table 3.4-1 (continued):

Site No.	Description	Potential Contaminants	Phase Status	Risk Assessment and Further Requirements
POI-33	Building 144	Potential releases of acid, solvent, or POL.	A-RI, removal of solid waste and/or isolated containers completed	Dry wells pose no risk; dry well sediments exceeding hazardous waste levels were removed as part of compliance program; removal of solid waste and/or isolated containers completed
POI-36	Building 117 and associated buildings (1749, 1818, 1898, 1220)	Potential releases of metals, waste oil, acidic wastes, paint, solvents, or sandblast grit; PCB in concrete	A-RI; IRA	Dry wells pose no risk; dry well sediments exceeding hazardous waste levels were removed as part of compliance program; PCB cleanup currently underway will be completed in January 1999; USTs and ASTs to be assessed prior to base closure
POI-37	Current Fuel Farm	Potential release of fuels; PCBs in soil	A-RI; IRA	Dry wells pose no risk; dry well sediments exceeding hazardous waste levels were removed as part of compliance program; PCB cleanup completed at S1860, closeout documentation will be completed in January 1999; ASTs to be assessed at base closure
POI-41	Buildings 1681, 1684 Substations S1681, 1684	Potential release of fuel; PCBs in soil and concrete	IRA	PCBs present; cleanup currently underway will be completed in January 1999; USTs closed; ASTs to be assessed prior to base closure
POI-42	Old Engine Test Cells Area	Release of oil and fuel to soil and groundwater; low concentrations of asbestos present in soils	A-RI; Phase II site investigation for USTs	Asbestos in soil poses no significant risk to human health, but source removal is required; dry wells pose no risk; dry well sediments exceeding hazardous waste levels were removed as part of compliance program; former UST site requires further monitoring
POI-44	Former Firing Ranges	Lead and mercury present in soils	EE/CA under RI phase	No significant risks to human health under industrial scenario; possible human health risks under residential or camping scenario; further assessment being conducted under EE/CA phase

Table 3.4-1 (continued):

Site No.	Description	Potential Contaminants	Phase Status	Risk Assessment and Further Requirements
POI-47	Dry Well Network (industrial waste discharge and hazardous substance runoff)	Numerous substances (including waste fuel, oil, solvents, PCBs, lead, arsenic, cadmium) in sediments and groundwater	A-RI	Dry well sediments do not pose risk to human health; no threat to groundwater throughout the base; dry well sediments exceeding hazardous waste levels were removed as part of compliance program
POI-48	Transformer Substation System	PCBs in soil and concrete at 13 substations (some discussed above); potential PCB release at two substations	IRA	Cleanup at 13 substations currently underway and will be completed in January 1999
POI-49	Regional Groundwater System	Potential impacts by POL, solvents, or industrial wastes; pesticides, total fuel hydrocarbon (TFH)-related compounds, and metals present in groundwater	RI	Possible human risks at one well located in the Navy retention area (actions to address fuel spill are under way); levels in other wells appear to be representative of "background" concentrations; annual monitoring to be conducted until property transfer is complete

Acronyms:

A-RI - Abbreviated Remedial Investigation
 AST - Aboveground Storage Tank
 BEQ - Bachelor Enlisted Quarters
 EBS - Environmental Baseline Survey NAS Barbers Point, June 1994
 EE/CA - Engineering Evaluation/Cost Analysis
 IRA - Interim Removal Action
 IRP - Installation Restoration Program

NFA - No Further Action
 PCB - Polychlorinated Biphenyl
 POI - Point of Interest
 POL - Petroleum, Oils, and Lubricants
 SVOC - Semi-Volatile Organic Compounds
 VOC - Volatile Organic Compounds
 UST - Underground Storage Tank

Notes:

(1) Source: Memorandum for the Record (October 20, 1998).

officials, and other individuals has established the Campbell Local Emergency Action Network (CLEAN) to address emergency planning issues, including public safety and health.

The *CLEAN Emergency Management Plan (1997)* provides a hazard analysis that identifies hazardous release scenarios, estimates of potential consequences from these releases, and assesses the community impact. The Clean Air Act (CAA) regulations (40 C.F.R. Parts 50 - 80) and U.S. EPA's *Risk Management and Prevention (RMP) Off-Site Consequence Analysis Guidance* (U.S. EPA, May 24, 1996) were used to carry out the analysis. For each facility or transportation mode identified as having the potential to cause significant off-site impacts, a worst-case release scenario for each identified toxic substance was evaluated, as well as one worst-case release scenario to represent flammable material. Similarly, one alternative scenario for each of the previously described cases was identified to evaluate the non-worst case accidental release scenarios that are "more likely to occur" and "more realistic" than the worst case. However, these scenarios are rare events not likely to occur in the lifetime of a facility. Toxicity levels used in the evaluation were based primarily on emergency response planning guideline (ERPG) levels developed by the American Industrial Hygiene Association. Computer air dispersion models were used to estimate downwind concentrations.

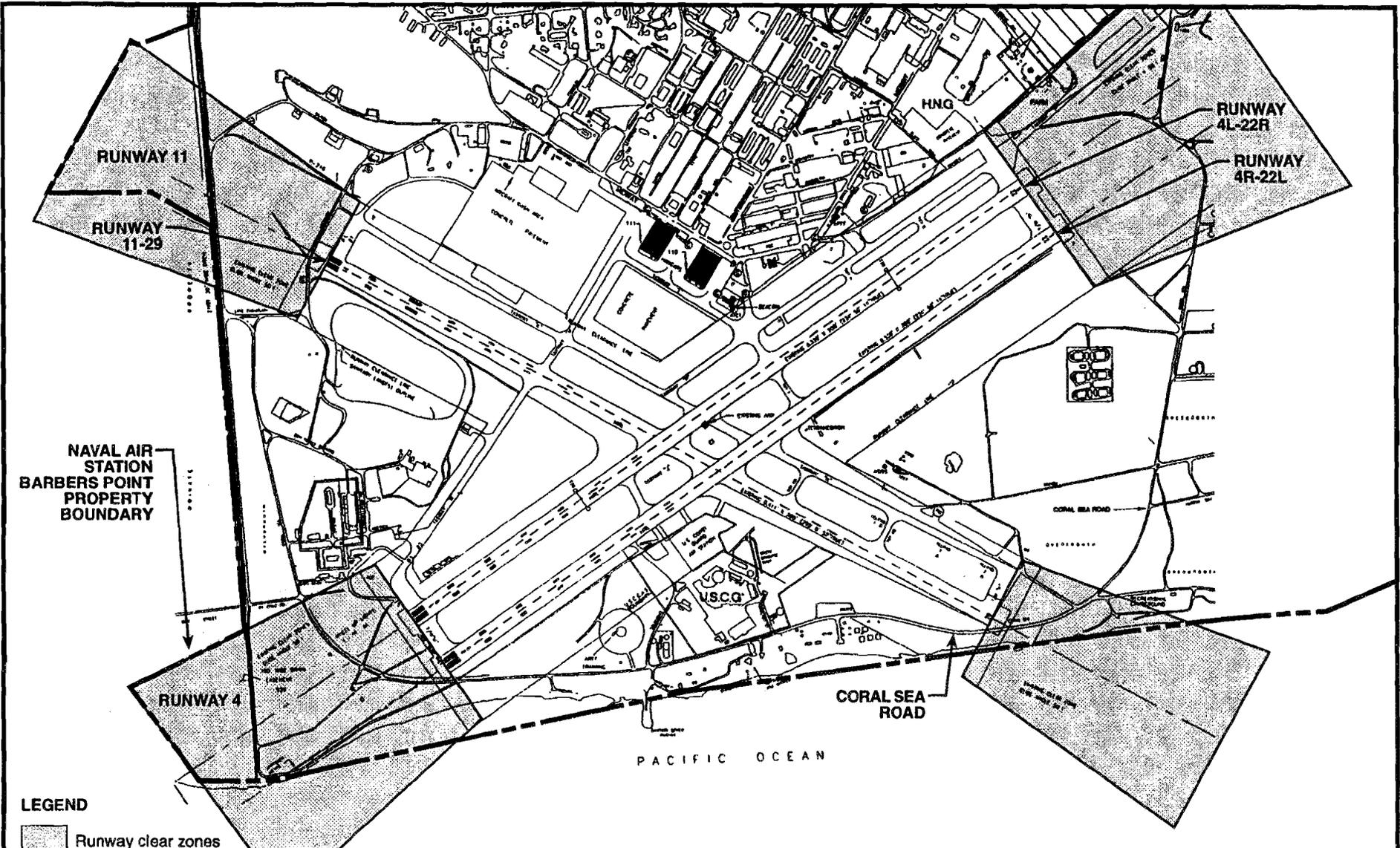
These methodologies were used to identify seven air pollutants for the off-site consequence analysis. In the non-worst case alternative scenario, NASBP was out of range from the impact area. In the worst-case scenario under unlikely wind conditions, i.e., when Barbers Point is downwind from CIP, the western portion of NASBP could be within the ERPG-2 (concentrations that may result in transient health effects in healthy individuals for exposure times up to one hour) impact range of the following chemicals: anhydrous ammonia, chlorine, hydrogen sulfide, and sulfur dioxide. Additionally, under worst-case conditions, the western portion of NASBP could be affected by radiant heat or blast overpressure resulting from flammable materials (which could cause significant injury to unprotected individuals). Pollutants that could affect most or all of NASBP under worst-case scenarios are anhydrous ammonia, chlorine, and sulfur dioxide.

3.4.3 Airport Protection Zones

The description of NASBP airport facilities and airport protection zones in this section is based on information contained in the *Kalaheoa Airport Master Plan Draft Report* (Aries Consultants Ltd., June 1996). The existing airfield layout consists of two parallel runways (4R-22L and 4L-22R) and a single crosswind runway (11-29), which intersect at midfield, and associated taxiways. Helicopters operate from several locations. Figure 3.4-2 shows the existing airport configuration.

Runways 4R-22L and 4L-22R are each 8,330 feet (2,592 m) long by 200 feet (62 m) wide. Runway 11-29 is 8,411 feet (2,616 m) long by 200 feet (62 m) wide. Helicopter landing and takeoff pads are located in several areas of the airport. Two pads are south of the Airport Traffic Control Tower (ATCT), and U.S. Coast Guard helicopters use the taxiway leading to the U.S. Coast Guard apron. Several U.S. Navy air carrier landing practice pads are at the east end of Runway 11-29.

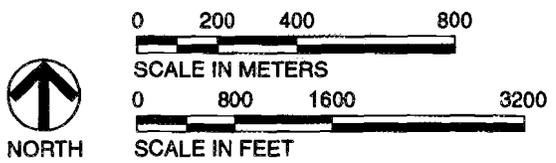
Runway Protection Zones. Runway protection zones (RPZ) or clear zones are required for civilian and military airfields, respectively. U.S. Navy clear zones at NASBP have an inner width of 1,500 feet (466 m), a length of 3,000 feet (933 m), and an outer width of 2,312 feet (719 m). The existing clear zones are contained within the NASBP boundary or over the ocean, with the exception of a



LEGEND

 Runway clear zones

Source: Aries Consultants Ltd. (June 1996) *Kalaeloa Airport Master Plan*.



**Figure 3.4-2
EXISTING AIRPORT LAYOUT**

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

part of the Runway 11 clear zone to the west. A portion of the Runway 11 clear zone is over private property to the west of NASBP.

The presence of Coral Sea Road at the approach ends to Runways 4R, 4L, and 29 is a violation of the clear zone criteria. These violations have been waived by the U.S. Navy. The portion of Coral Sea Road that violates the clear zones for Runways 4R and 4L is currently closed to traffic except for emergency or approved access. The portion of Coral Sea Road that violates the clear zone for Runway 29 is controlled by traffic lights operated by personnel in the Barbers Point ATCT.

Approach Areas and Obstructions. Approach areas for all runways at NASBP have an inner width of 1,500 feet (457.3 meters), outer width of 16,000 feet (4,878.0 meters), and a length of 50,000 feet (15,243.9 meters). The approach surfaces slope upward at a ratio of 50:1 to an altitude of 533 feet (162.5 meters) above sea level (or 500 feet [152.4 meters] above the airport elevation). The remaining approach surface out to the 50,000-foot (15,243.9-meters) length is horizontal.

Based on military criteria, and with the exception of Coral Sea Road, there are no obstructions within the clear zones or approach areas. Some stacks within the CIP penetrate the inner horizontal surface of civil aviation criteria (FAR Part 77 Imaginary Surfaces). These stacks dictate the instrument flight rule circling minimums to the airport and the straight-in minimums for the nondirectional beacon approach to Runway 4L.

3.4.4 Explosive Safety Quantity Distance (ESQD)

ESQD zones are established at ordnance storage and handling areas and facilities. Areas within these zones do not provide an acceptable level of risk for personnel and facility safety; hence, development within ESQD zones is restricted. ESQD zones are now present in surplus areas, but will be nonexistent upon base closure. For this reason, the effect of ESQD on redevelopment is not an issue requiring further evaluation.

3.5 PUBLIC SERVICES

At present, public services at NASBP are primarily provided by Navy for military personnel. These include one fire station equipped to handle aircraft and structural fires, a U.S. Coast Guard station, and a base clinic. The base provides its own security. A public elementary school, administered by the State Department of Education, is also located on the base.

3.5.1 Education

The State Department of Education manages several schools in the region. Barbers Point Elementary School is located on base. There is a new elementary school in Kapolei. Ilima Intermediate and Campbell High School, both in Ewa Beach, provide secondary education for children in the Ewa district. Kapolei Middle School is planned to open soon after the base closure in 1999. In addition, some church-run private schools exist in the area. Recent residential growth in the Ewa district has created greater demand for schools. While Barbers Point Elementary has approximately 400 students, the average number of students at other Leeward district elementary schools is 680.

No higher education facilities are currently in the area. There are plans to build a University of Hawaii, West Oahu campus, inland of the H-1 Freeway by 2006. Vocational training is offered by West Oahu Employment Corporation with a focus on job preparation for the West Beach resort area.

3.5.2 Police

The base is in the Kapolei-Waianae police district, which serves 100,000 people. This police district is one of the largest by area on Oahu and has 129 officers. At present, the base provides its own security. Plans for the rapidly growing Ewa district include a new police station in Kapolei to house 210 officers, scheduled to open in about 1999 after the base closes. The police department uses a ratio of two officers per 1,000 people to determine the number of officers needed in an area. Projected development for the Kapolei-Waianae District would require a total of about 350 officers in this police district (based on projections to the year 2020).

3.5.3 Fire

Three fire stations currently serve the Ewa district: the Makakilo station serves Makakilo; the new Kapolei station serves Kapolei, Ewa by Gentry, and Ewa inland of Renton Road; and the Ewa Beach station serves Ewa to the south of Renton Road. In the near future, the Ewa Beach station plans to relocate to facilities at Ewa Marina. This would place it closer to redevelopment areas. At present, the reuse area has a fire station near the airfield to handle aircraft-related fires as well as structural fires on the base. Another on-base facility, now closed, was used about 25 years ago to fight structural fires. The C&C of Honolulu has expressed interest in this facility, which would have to be modified to make it operational.

3.5.4 U.S. Coast Guard

The U.S. Coast Guard maintains a station on base and uses the airfield at NASBP to perform ocean rescue, fishery regulations enforcement, and other activities under its jurisdiction.

3.5.5 Health Care

One full-service hospital, St. Francis-West, is located in the Ewa district. At the end of 1995, it was operating at 81 percent occupancy, had 82 beds, and provided emergency care, outpatient, laboratory, and X-ray services as well as medical offices. Clinics in the area include Kaiser Permanente in Kapolei, and West Side Women's Health Care Clinic and Ewa Beach Medical Clinic, both on Fort Weaver Road. In addition, the Waianae Coast Comprehensive Health Clinic and a few other clinics associated with major hospitals are in the Waianae area. A proposed Kapolei Medical Park will include offices and clinics affiliated with major health care providers. The base clinic, which serves military personnel and dependents, is available to civilians for critical emergencies only.

3.6 SOCIOECONOMIC ENVIRONMENT

The regions of influence for socioeconomic effects associated with the disposal and reuse of land at NASBP are as follows:

- Immediate Vicinity: the base itself, Kapolei and other neighboring towns, CIP, and proposed Ewa Marina.
- Region: Ewa and Waianae Development Plan (DP) areas.
- Island-wide: Oahu, represented by the C&C of Honolulu.

The Ewa DP area is designated as a Secondary Urban Center for Oahu, and since the early 1990s it has experienced a large increase in residential development. Approximately 12 percent of the island's population are projected to reside in Ewa by the year 2020.

3.6.1 Demographics

The State of Hawaii has approximately 1.2 million residents and receives nearly 7 million visitors a year. Oahu has approximately 871,469 residents (1995 figures), or nearly 75 percent of the state population. The Ewa DP area has approximately 51,286 residents (1995 figures), and is projected to grow from having 5.1 percent (1990) to 12 percent (by 2020) of the island's population (based on preliminary C&C of Honolulu Planning Department projections for 2020).

The military personnel population in Hawaii is 42,790, with an additional 54,338 in family members; Oahu has 99.5 percent of this population (State of Hawaii Department of Business, Economic Development and Tourism, 1995). The resident population of military families at NASBP in 1990 was 2,152 (family housing only) (U.S. Bureau of the Census, 1991).

The ethnic makeup of civilian populations in Hawaii is dominated by persons of mixed ancestry (37 percent; this includes part-Hawaiian at 19 percent), Asian descent (36 percent), and Caucasian background (23 percent). People of Hawaiian ancestry comprise 10 percent of the Ewa DP area population and 41 percent in the Waianae DP area (U.S. Bureau of Census, 1991, 1992). In contrast, the armed forces ethnic makeup is primarily Caucasian (65 percent), mixed ancestry (15 percent, primarily non-Hawaiian), and black (15 percent). Military family members are primarily Caucasian (50 percent), mixed ancestry (30 percent, primarily non-Hawaiian), and black (10 percent) (State of Hawaii Department of Business, Economic Development and Tourism, 1995 [numbers rounded off]).

3.6.2 Employment

Economic activity on Oahu is concentrated in the Primary Urban Center (Honolulu area), which has about three-quarters of island jobs and about half of the population. Projections to the year 2020 anticipate a decrease in job share in Honolulu to approximately 69 percent. The job share in the Secondary Urban Center in the Ewa DP area is expected to grow at a rate of 4 percent a year, going from 3 percent of island jobs in 1990 to 10 percent in 2020 (based on preliminary C&C of Honolulu Planning Department projections for 2020). The City of Kapolei is projected to become

the major employment center for the region. Other employment areas in the region include Ko Olina resort, Ewa Marina, CIP, and Barbers Point Harbor. The job share in the Waianae DP area is about 1 percent of island jobs at present; this is expected to grow to 2 percent in 2020. At NASBP, there are approximately 939 civilian and 4,469 military jobs. The civilian jobs represent approximately 5 percent of existing jobs in the Ewa area.

For the Ewa DP area, the potential civilian labor force numbers 25,556 (71 percent of its population). Unemployment is 5 percent. Twenty-one percent of the residents commute for more than 45 minutes each way to and from work. For the Waianae DP area, the potential civilian labor force numbers 24,377 (62 percent of its population). Unemployment is 8 percent. Forty percent of the residents commute for more than 45 minutes each way to and from work (U.S. Bureau of Census, 1992).

3.6.3 Household Income

Household annual incomes in the Ewa DP area average \$44,759, with 9 percent in the state's lowest (i.e., incomes of less than \$15,000) and 12 percent in the highest (i.e., incomes of \$75,000 or greater) income brackets. Homeowners in the Ewa DP area who pay more than 35 percent of their household income on housing comprise 21 percent; renters who pay more than 35 percent of household income on housing comprise 36 percent. Five percent of the population is below the poverty level (U.S. Bureau of Census, 1991, 1992).

In the neighboring Waianae DP area, median household annual income is \$38,310, with 22 percent in the lowest and 9 percent in the highest income brackets. Homeowners in the Waianae DP area who pay more than 35 percent of their household income on housing comprise 14 percent; renters who pay more than 35 percent of household income on housing comprise 44 percent. Nineteen percent of the population is below the poverty level; 26 percent are children under 18 years (U.S. Bureau of the Census, 1991, 1992).

Household incomes in the vicinity of NASBP range from a median income of \$23,908 on the base, up to \$50,284 in Makakilo. Persons living below the poverty level range from 1 percent on base up to 7 percent in Ewa Beach (U.S. Bureau of the Census, 1991, 1992).

3.6.4 Economics

Tourism and construction are the first and second dominant industries in Hawaii, respectively. Both of these experienced rapid growth during the 1980s and have had a downturn during the 1990s. Military activity ranks as the third largest industry sector, accounting for \$3.3 billion in expenditures in 1996 (Bank of Hawaii, 1997). Even with the closure of NASBP, military expenditures statewide are expected to remain stable.

To help stimulate Hawaii's tourism, the State and the C&C of Honolulu are promoting international sporting events facilities as a high priority for development.

3.6.5 Housing

Housing developments in the Ewa DP area include Ewa Villages, Ewa Beach, Makakilo, Ewa by Gentry, West Loch, Iroquois Point (Navy housing), and Kapolei. Housing in Ewa has expanded rapidly since the early 1990s as sugar plantation lands have been converted to residential developments. As of 1995, 30,000 new homes had been permitted for building in the Ewa DP area (C&C of Honolulu, 1995 *Development Plan Status Review*).

In 1990, the Ewa DP area had 11,734 housing units with a 3 percent vacancy rate. A typical household size was 3.66. Owner-occupied homes comprised 53 percent while renter-occupied comprised 47 percent. Mean housing value was \$232,270 (U.S. Bureau of the Census, 1991, 1992).

By contrast, the Waianae DP area had 10,680 housing units with a 12 percent vacancy rate. A typical household size was 3.93. Owner-occupied homes comprised 52 percent, and renter-occupied comprised 48 percent. Mean housing value was \$168,784 (U.S. Bureau of the Census, 1991, 1992).

In neighborhoods in the vicinity of the base, median housing values ranged from \$116,500 up to \$275,000. A total of 9,033 housing units existed (Kapolei was not yet counted). Owner-occupied units ranged from 0 percent (at NASBP) up to 80 percent (Ewa by Gentry). Renter-occupied units ranged from 20 percent (Ewa by Gentry) to 100 percent (NASBP). Persons per household ranged from 2.52 (NASBP) up to 4.26 (Ewa Beach) (U.S. Bureau of the Census, 1991, 1992).

3.6.6 Recreation

There are three beach parks in the Ewa area: Ewa Beach Park and Oneula Beach Park in Ewa Beach and Barbers Point Beach Park in CIP. The Waianae coast has many beach parks and well-known surfing areas. In addition, Kapolei has a district park with smaller community parks scattered throughout residential areas. Some recreational facilities have been planned in these parks but are not yet built. The demand for park space exceeds available resources, as illustrated by some organized sports and events for area residents having to be scheduled outside of the Ewa district. For Oahu, current projections to the year 2020 show a shortfall of 62 acres (25 hectares) for community parks and 453 acres (183 hectares) for island-wide park facilities, according to planning standards used by the C&C of Honolulu, Department of Parks and Recreation.

3.7 INFRASTRUCTURE

Utilities and supporting infrastructure within NASBP are sufficient to meet existing demands for electrical power, potable water, wastewater collection, treatment and disposal, and solid waste disposal. There is no non-potable water system serving the installation.

The Navy Public Work Center, PWC, Pearl Harbor, owns, operates, and maintains the potable water system serving NASBP. The system includes an off-base deep well pumping station, water treatment facilities, underground storage reservoirs, a transmission main line, and a distribution system for domestic supply and fire protection.

Wastewater is collected through an on-base system and transmitted to the C&C of Honolulu's Honouliuli WWTP. Average daily flow to the treatment plant from the base is about 0.57 million gallons per day (MGD) (2,280 cubic meters per day [m³/d]).

Electrical power is supplied by Hawaiian Electric Company (HECO) from their Kahe Point generating station to a substation dedicated to NASBP. The HECO feeds connect to Navy PWC-owned substations that distribute power throughout the base. Navy operates and maintains the on-base distribution system along with portable and stand-by generators for emergency use.

Solid waste is collected by Navy and disposed of at the C&C of Honolulu's Waimanalo Gulch landfill. It is estimated that an average of 24 TPD (22 metric tons per day [TPD]) of solid waste from the base are collected and disposed. Hazardous materials generated within the installation are collected and disposed of by Navy at authorized disposal sites.

3.7.1 Potable Water

Existing Regional Potable Water System

The C&C of Honolulu Board of Water Supply (BWS) is the local water utility agency on Oahu. While Navy has a separate water system for NASBP, the regional system is municipally owned, operated, and maintained. BWS's regional potable water system consists of supply wells, storage reservoirs, booster pump stations, and transmission lines that carry water to distribution systems. The primary system infrastructure is shown in Figure 3.7-1. This system serves existing and planned developments in Makakilo, Kapolei, and Ewa.

The recently completed Farrington Booster Pump Station was installed to meet increased water demands for the continued development of Kapolei. This pump station transports water from the eastern side of the system to the western side, serving Kapolei, Makakilo, CIP, and other areas to the west. The station has an ultimate design capacity of 50 MGD (200,000 m³/d). The presently installed pumps have a capacity of 30 MGD (120,000 m³/d). Based on the projected initial service area demand of 27 MGD (108,000 m³/d) (Hawaii Pacific Engineers, February 27, 1998), there is an excess 3.0 MGD available at the pump station.

Existing Water System at NASBP

Description of the System. Navy owns the existing potable water system at NASBP. The Navy PWC provides, operates, and maintains this system as well as public utilities at other naval bases on Oahu. The existing NASBP potable water system is composed of facilities to supply water from the source to the user. These facilities include a deep well pumping station, water treatment facilities, two underground storage reservoirs, a transmission main, and a distribution system for domestic supply and fire protection.

Source. The NASBP potable supply source well is located approximately 3 miles north of the base as shown in Figure 3.7-2. The well, identified as United States Geological Survey (USGS) Well No. 2103-03, was constructed in the early 1940s and placed into service in 1943. The identified well yield, which can be withdrawn with "no significant impact" on adjacent aquifers, is 4.34 MGD (17,360 m³/d) (Hawaii Pacific Engineers, February 27, 1998). The well is equipped with two deep well turbine pumps, one with a capacity of about 4.6 MGD (18,400 m³/d), the other with a capacity

of about 4.0 MGD (16,000 m³/d). Sampling and analyses conducted by PWC's environmental laboratory show that the supply well water meets the minimum National Primary Drinking Water Regulation water quality requirements. On occasion, however, the water quality test reports indicate that chloride levels exceed the 250 milligrams per liter (mg/l) limit recommended by the National Secondary Drinking Water Regulation. Elevated chloride levels influenced by the loss of agricultural irrigation recharge (which used higher quality water), are indicative of the southern portion of the Ewa-Kunia aquifer.

A 1987 study by the USGS determined that the chlorides are from normal infiltration of rainfall, sea spray, and irrigation return water. Subsequent studies were undertaken to assess blending of the NASBP water with that from the Navy PWC Pearl Harbor system. It was determined that blending could be effective in lowering chlorides below 250 mg/l, and while the findings were further evaluated, no additional interconnections of the two systems for blending were undertaken. Present water treatment consists of chlorination and fluoridation prior to storage and transmission.

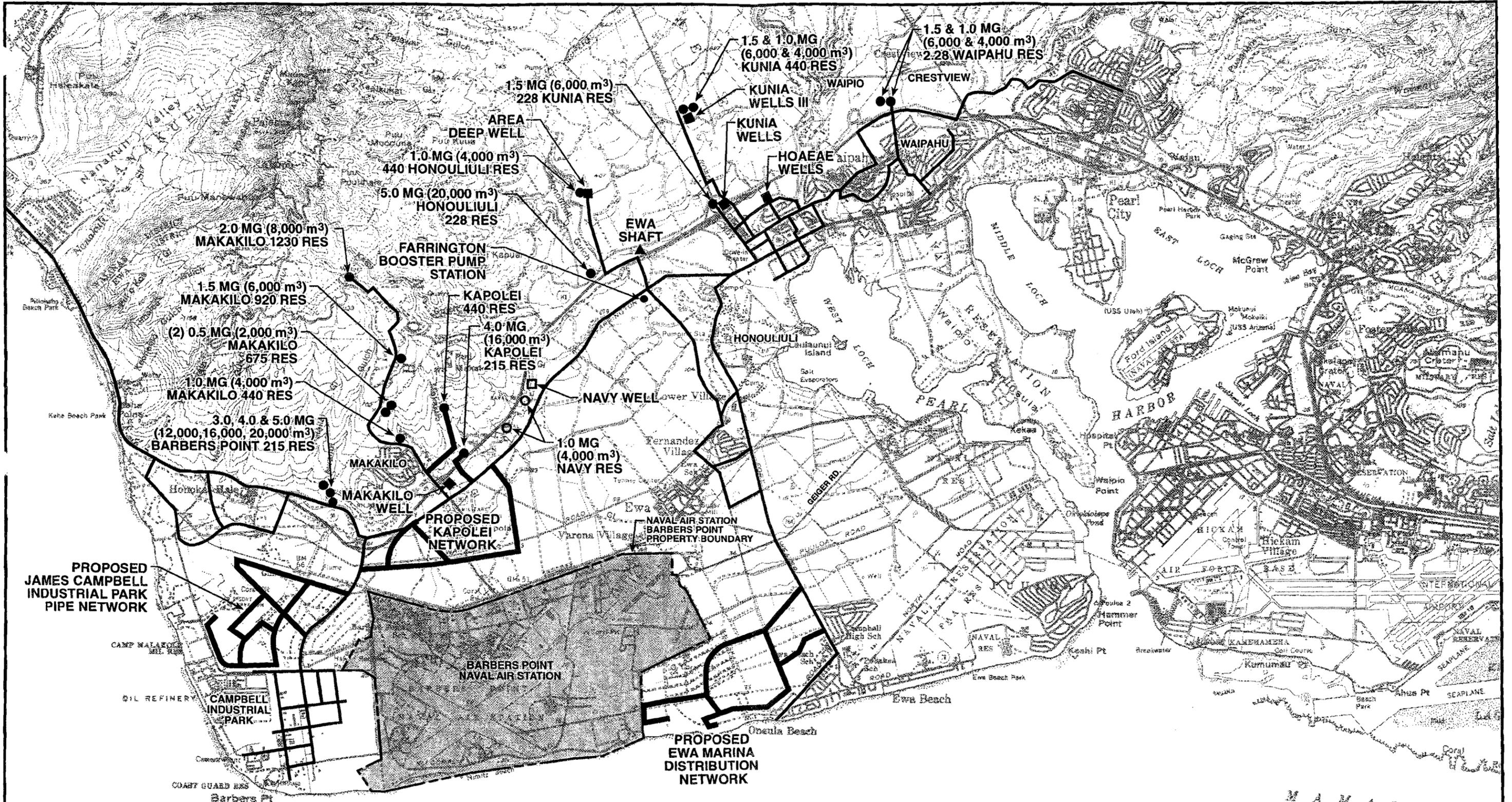
Storage and Transmission. Water is stored in two underground reinforced concrete reservoirs constructed in 1944. Each reservoir has a capacity of 1.0 MG (4,000 m³) with a 10-foot (3-m) depth. The location of these reservoirs is shown in Figure 3.7-2.

Water is conveyed from the reservoirs to the base by a 24-inch-diameter transmission main located within a pipe easement on lands owned by the Estate of James Campbell. The approximate 2.5 miles (4.2 km) of main consist of both cast iron and ductile iron pipes. The original main was constructed in 1944, with a segment relocated in 1991. This segment, from Farrington Highway to the base boundary, was constructed in accordance with BWS water system standards.

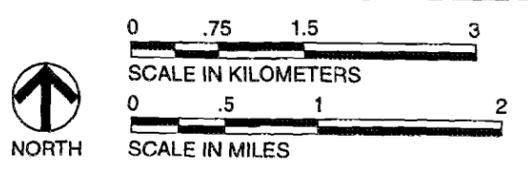
Distribution. The on-base distribution network is composed of approximately 57 miles (91.2 km) of looped 6-inch (15-cm) through 24-inch (61-cm) diameter pipes, 640 valves, and 240 fire hydrants. A 12-inch (30-cm) diameter pipe interconnection with the Navy PWC Pearl Harbor water system from West Loch is located at Geiger Road. This interconnection is maintained in a partially open condition to allow a small amount of water to flow through the pipeline, preventing water stagnation in the event supplementary water service is needed.

Demands. Navy PWC records indicate that average NASBP water consumption ranged from 2.33 to 2.9 MGD (9,320 to 11,600 m³/d) during calendar years 1987 through 1991. The recorded daily demands varied from a low of 1.0 MGD (4,000 m³/d) on November 24, 1990, to a high of more than 5.2 MGD (20,800 m³/d) on July 11, 1989. More recent data agree with the historical consumption records. Data for calendar year 1995 show the average consumption to be 2.25 MGD (9,000 m³/d), with a peak of 2.86 MGD (11,440 m³/d) and a low of 1.37 MGD (5,480 m³/d).

According to a 1951 agreement with the Estate of James Campbell, the NASBP well is limited to a maximum withdrawal of 5.0 MGD (20,000 m³/d). However, in September 1979, the State of Hawaii Board of Land and Natural Resources designated the Pearl Harbor basin in central Oahu as a groundwater control area and issued allocations to the regional groundwater users. Under the regulations promulgated by DLNR, the NASBP well was allocated a maximum withdrawal of 2.337 MGD (9,348 m³/d). Navy officially notified the DLNR that the 2.337 MGD (9,348 m³/d) limit was not legally binding upon Navy, but as a matter of comity every effort to comply with the regulations would be made (Fukunaga and Associates, 1992.)



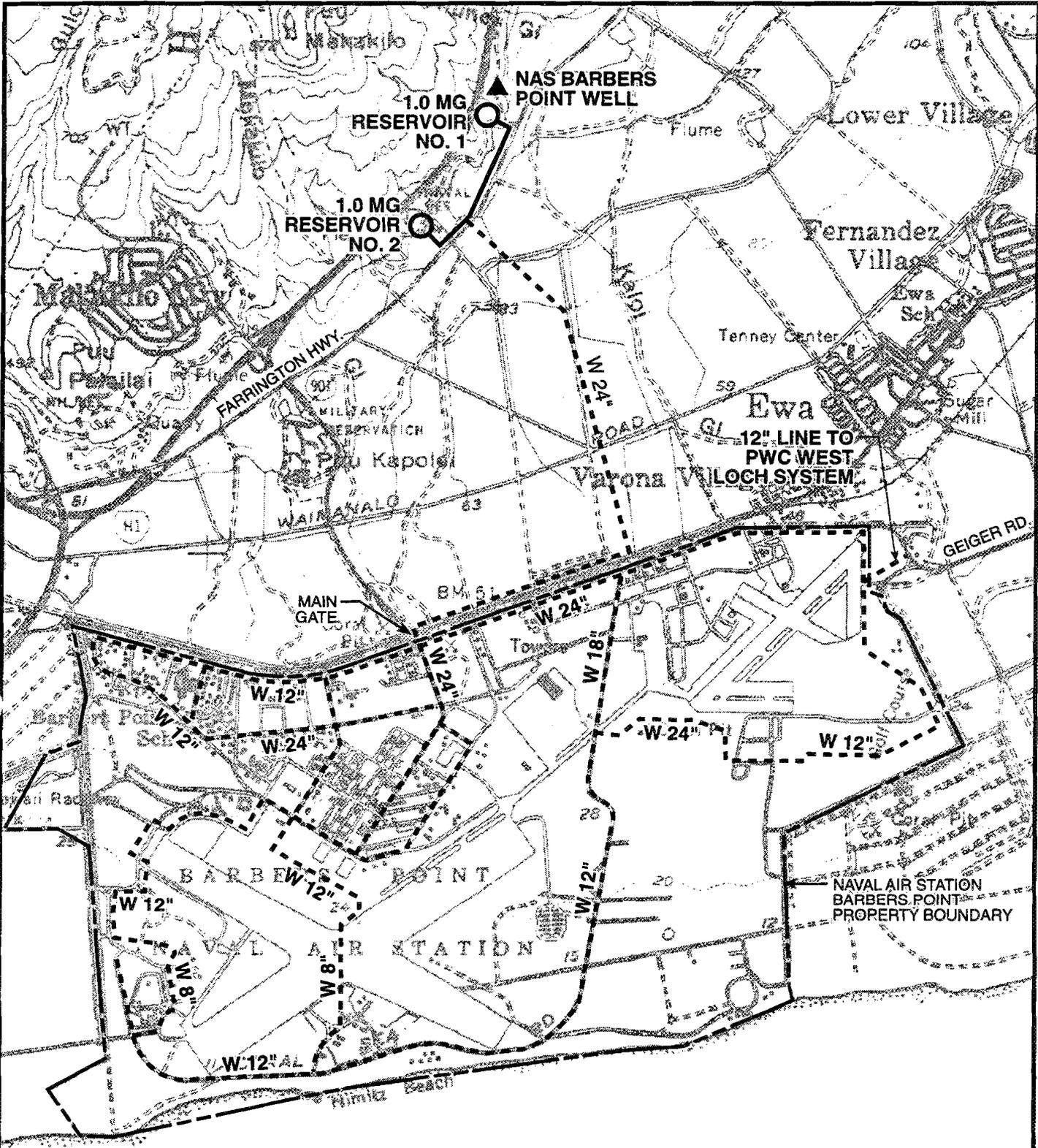
Source of base map: USGS Topographic Map of the Island of Oahu (1970)



- LEGEND**
- BWS Well
 - BWS Reservoir
 - ▲ Shaft Service—Campbell Estate
 - Navy Reservoir
 - Navy Well
 - 6,000 m³ (1.5 MG) 228 RES
 - Existing BWS Transmission Main
 - Proposed BWS Transmission Main

Figure 3.7-1
CITY & COUNTY OF HONOLULU REGION
POTABLE WATER SUPPLY SYSTEM

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



Source of data: Hawaii Pacific Engineers (January 20, 1997).
 Source of base map: USGS Topographic Map of the Island of Oahu (1970).

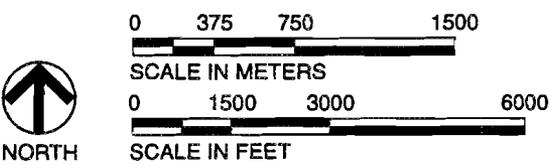


Figure 3.7-2
NAVY POTABLE WATER SOURCE, TRANSMISSION
AND PRIMARY DISTRIBUTION SYSTEM

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

3.7.2 Non-Potable Water

Existing Regional Non-Potable Water Systems

The primary existing regional non-potable water sources for irrigation consist of wells drawing from the caprock aquifer. Other regional non-potable water sources include brackish basal wells, along with highly saline and salt water sources that withdraw from the caprock aquifer below the upper limestone layer. These are used mainly for industrial applications. Well construction and pump installation for withdrawal of groundwater anywhere in the state requires a permit from the State Commission on Water Resource Management (CWRM).

A water use permit from the CWRM is required in designated water management areas (e.g., groundwater control areas). Due to the concerns about upland potable supply well water quality, CWRM designated the Ewa caprock aquifer a groundwater control area along with the Pearl Harbor basal aquifer it overlies. As such, the number of well drilling permits issued in the area is restricted, as is the amount of groundwater withdrawn. Since 1993, the CWRM has been issuing short-duration water use permits due to uncertainties in the caprock's sustainable yield and the availability of reclaimed water. Current water use permit holders for the Ewa caprock aquifer include the Estate of James Campbell and various developers, such as Gentry Properties and the State Housing Finance and Development Corporation's Kapolei Village.

The concern about existing potable supply water quality is that as basal groundwater is withdrawn for irrigation and other uses, salinity will increase in the upland wells. Also, the use of upland basal wells for irrigation may not be the most reasonable and beneficial use of that water, which is of potable quality.

The existing non-potable wells are connected to transmission systems which support roadway and selected common area landscaping in the various developments. The Kapolei Village golf course is also irrigated from the non-potable system.

Existing NASBP Non-Potable Water System

Currently, there is no non-potable water system at NASBP. The only use of non-potable water considered on base has been irrigation of NASBP golf course, which is currently irrigated with potable water. The golf course was identified as one of the effluent reuse demonstration projects planned by the C&C of Honolulu Department of Environmental Services (DES).

Under the terms of a federal consent decree, DES's Honouliuli WWTP, located approximately 2.5 miles (4 km) northeast of the central base area, is required to produce and supply for use 2.0 MGD (8,000 m³/d) of reclaimed effluent by July 1998. The total volume of effluent to be ultimately reclaimed is 12 MGD (48,000 m³/d). In addition to the NASBP golf course, two municipal courses and two privately owned courses on the Ewa Plain have been identified for reclaimed effluent use, along with industrial applications in CIP.

The NASBP golf course is in the retention area. Recent improvements at the course included a new automatic irrigation system. Included in the system was a booster pump station which can be modified to convert from using potable water to reclaimed effluent. System modifications would also be required to meet State DOH required setbacks from other land uses. If DES plans are

implemented, there will be a non-potable water system in the retained golf course area by 1999, supplying the average daily irrigation demand of 600,000 gallons (2,400 m³).

3.7.3 Wastewater

Existing Regional Wastewater System

The regional wastewater collection, treatment, and disposal system is owned and operated by the C&C of Honolulu DES. A network of sanitary sewers serves developments within the region, conveying wastewater to the Honouliuli WWTP located along Geiger Road, adjacent to the eastern NASBP boundary. Developments to the north of Geiger Road, including those in Kapolei, are served by gravity sewers. South of Honouliuli WWTP, only developments to the east are served by a sanitary sewer system. The gravity sewers in the southern community of Ewa Beach flow to pump stations, ultimately discharging to a force main on Fort Weaver Road. This force main eventually connects a gravity trunk sewer on Geiger Road, which conveys flows to the plant. CIP is unsewered and has on-site individual wastewater disposal facilities, such as septic tanks with leaching fields.

The Honouliuli WWTP has a designed primary treatment capacity of 38 MGD (152,000 m³/d). The current inflow to the plant is approximately 25 MGD (100,000 m³/d). A portion of the inflow, 13 MGD (52,000 m³/d), is processed by secondary treatment. This portion is then blended with the remaining 12 MGD (48,000 m³/d) of the primary-treated flows and ocean-discharged as advanced primary-treated effluent. The long-term plans for effluent reuse are discussed in the Non-Potable Water section of this document.

In addition to the current 25 MGD (100,000 m³/d) inflow to Honouliuli, a flow of approximately 8 MGD (32,000 m³/d) is allocated to future projects. These projects are primarily residential developments such as Gentry Homes, Mililani Mauka, and other planned housing expansion in Ewa. The remaining available capacity of the Honouliuli WWTP is thus about 5 MGD (20,000 m³/d).

Existing NASBP Wastewater System

Wastewater generated at NASBP is conveyed to the Honouliuli WWTP for treatment and disposal. The existing on-site sewerage system consists of approximately 15.3 miles (24.5 km) of gravity sewers, 7.3 miles (11.7 km) of sewer force mains, and 12 sewage pump stations. A system map showing the main lines and pump stations is presented in Figure 3.7-3. The gravity sewers range in size from 6 to 30 inches (15 to 76 cm) in diameter, with force mains ranging from 4 to 18 inches (10 to 45 cm) in diameter. The on-site system is owned, operated, and maintained by Navy PWC Pearl Harbor.

Under contract N72642-75-C-9101, Navy purchased 2.66 MGD (10,640 m³/d) of the 38 MGD (152,000 m³/d) treatment capacity at the Honouliuli WWTP. The wastewater allocation for NASBP, out of this total, is 1.5 MGD (6,000 m³/d).

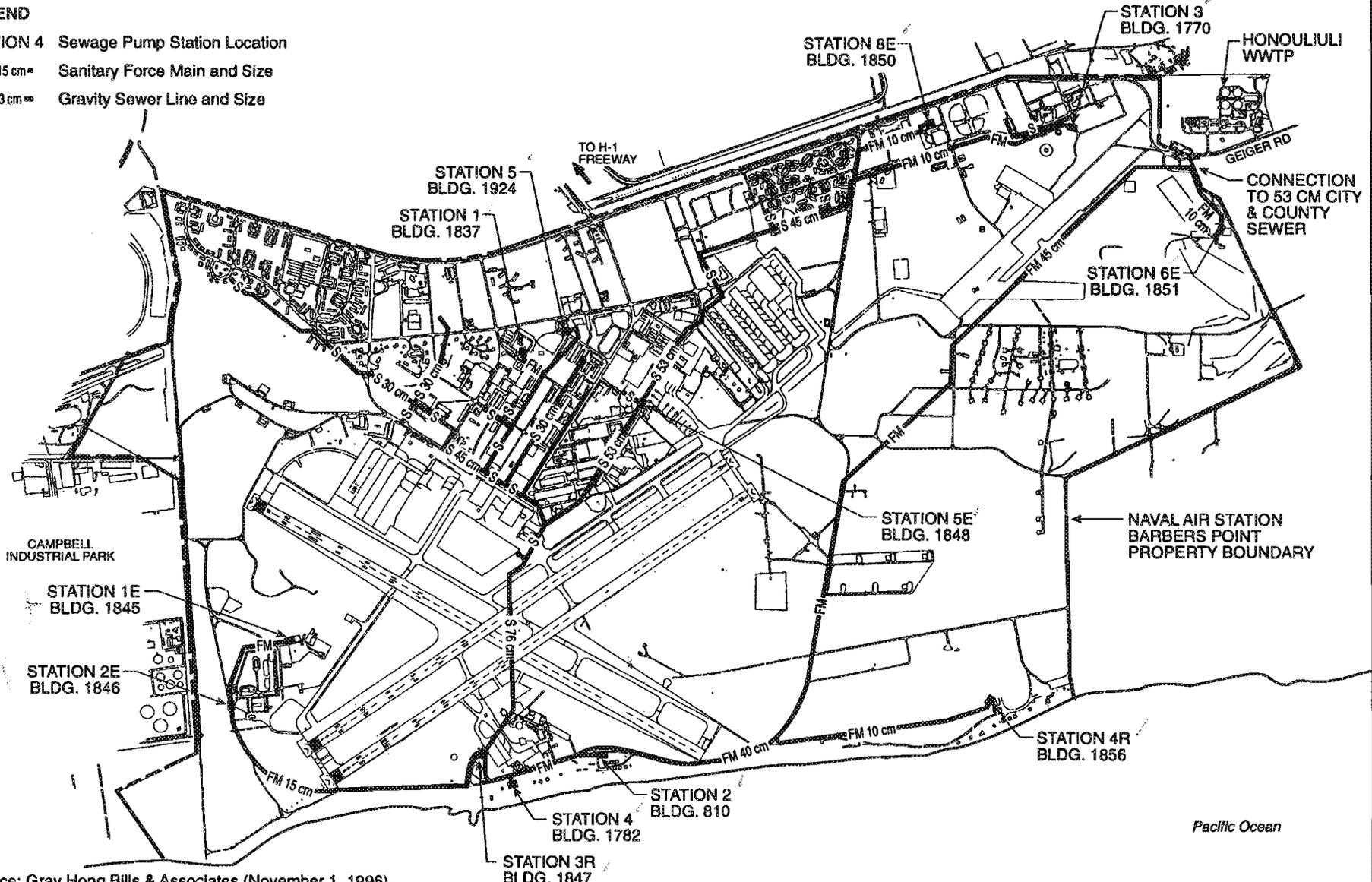
A 1992 Utility System Assessment of the on-site sewerage system concluded that while the existing facilities were in generally good condition, there were several deficiencies (Fukunaga and Associates, 1992). The gravity sewers and some of the pump stations were rated "good." However,

LEGEND

STATION 4 Sewage Pump Station Location

FM 15 cm Sanitary Force Main and Size

S 53 cm Gravity Sewer Line and Size



Source: Gray Hong Bills & Associates (November 1, 1996)

0 300 600 1200

SCALE IN METERS

0 1200 2400 4800

SCALE IN FEET



NORTH

Figure 3.7-3
NAS BARBERS POINT EXISTING SEWER SYSTEM

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

the manholes and other pump stations were rated "fair" to "poor." A good rating meant that the system could function 6 to 10 years (i.e., 1998 to 2002) with only routine maintenance. The fair rating implied being able to serve 6 to 10 more years, but with some major system component being replaced or repaired. The poor rating indicated that service beyond 6 to 10 years would require immediate improvements.

The problems noted with the manholes were that the manhole rungs were badly corroded or missing. The pump station deficiencies ranged from new pump seals being needed, to replacing the entire pump station due to capacity inadequacies. None of the subsequent utility system reports identified if specific action on any of the deficiencies was undertaken.

Monitoring conducted at NASBP from December 13 to 24, 1991, indicated flows of 0.46 to 0.69 MGD (1,840 to 2,760 m³/d); Navy PWC operational data for all of 1991 indicated the average daily wastewater flow at NASBP to be 0.57 MGD (2,280 m³/d) (Fukunaga and Associates, 1992). The primary component of the wastewater flows is domestic sewage, with some industrial wastewater generated from wash-down operations, swimming pools, and the medical clinic.

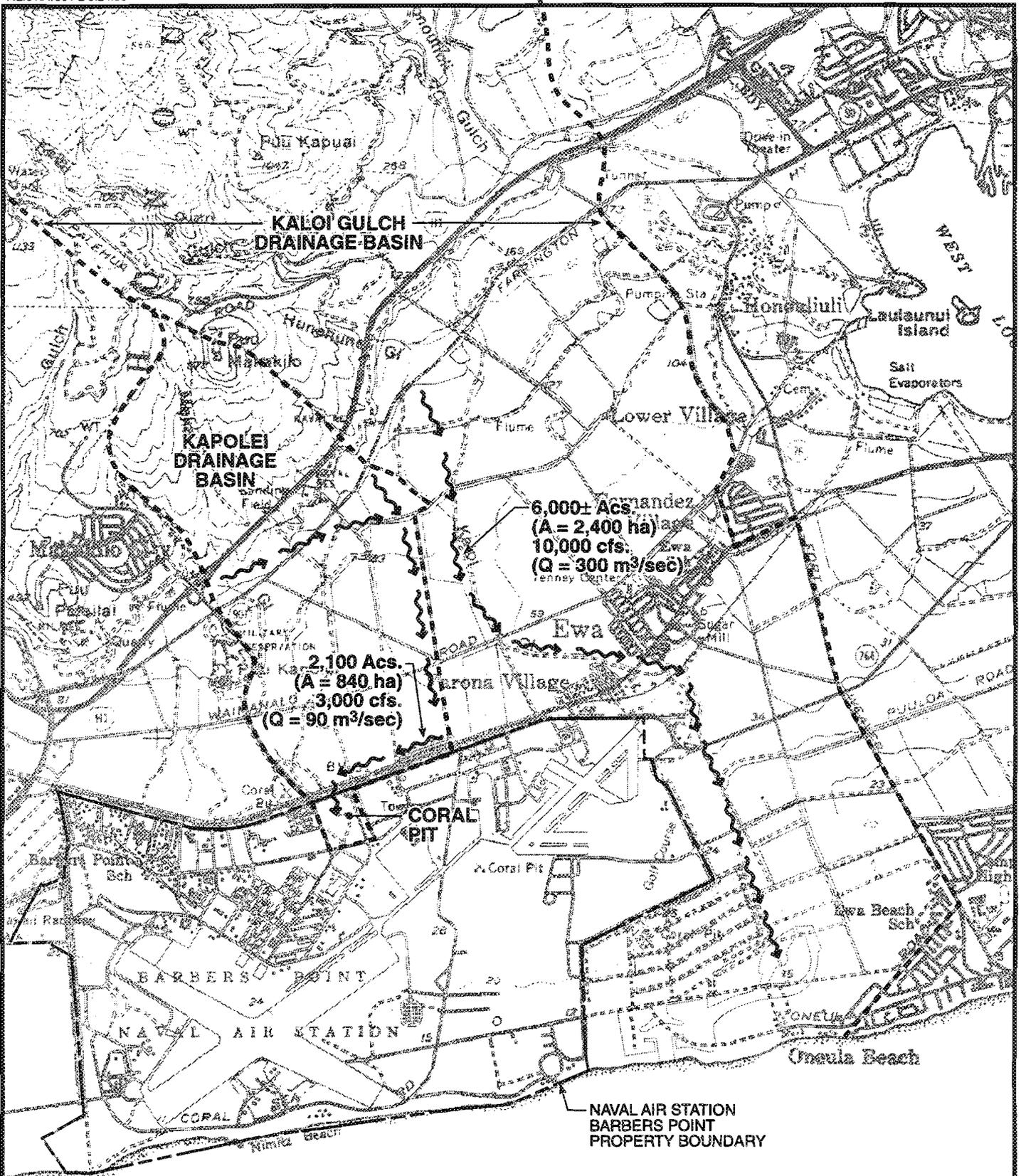
3.7.4 Drainage

Existing Regional Drainage System

The two regional drainage basins affecting NASBP are the Kaloi Gulch Drainage Basin and the Kapolei Drainage Basin (Figure 3.7-4). NASBP receives runoff from the hills adjacent to Makakilo City and from Kapolei Village. Runoff from the hills is conveyed through culverts along Farrington Highway and H-1 Freeway to the Kapolei Golf Course. From the golf course, runoff is routed to a channel along the northern boundary of the base. Runoff from the Kapolei Village system is also discharged to this channel (Engineering Concepts, Inc., October 1993). Channel flows drain to a coral pit within NASBP located between Franklin D. Roosevelt Road and Saratoga Place, approximately midway along the base's northern boundary, between Enterprise and Midway Streets. The coral pit is on retained lands.

The Kaloi Gulch Drainage Basin is approximately 6,000 acres (2,400 hectares) and has an estimated peak runoff of 10,000 cubic feet per second [cfs] (300 m³/sec). The master planned concept for handling gulch runoff is to channel it through planned developments east of NASBP and ultimately to the ocean via the Ewa Marina project. Due to very limited market demand, housing and associated developments planned for the Ewa Marina complex have not been implemented and are presently unscheduled. Consequently, development of the upland areas of the Kaloi Gulch Basin has been difficult since there is no means to handle the associated increase in storm water runoff. Another concern has been compliance with NPDES requirements, especially at the Ewa Marina ocean terminus (Helber Hastert & Fee, Planners, March 1997).

The area of the Kapolei Drainage Basin is about 2,100 acres (840 hectares), having an estimated peak flow of 4,600 cfs (138 m³/sec). Runoff from this basin empties into the NASBP coral pit. Due to infiltration within the basin, the runoff discharged to the pit is estimated at 3,000 cfs (90 m³/sec).



Source of base map: USGS Topographic Map of the Island of Oahu (1970).

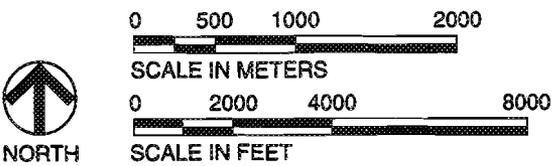


Figure 3.7-4
EWA REGIONAL DRAINAGE

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

Existing NASBP Drainage System

Storm water runoff at NASBP is handled by a series of dry wells located throughout the base that facilitates infiltration of runoff into the subsurface coral deposits (Helber Hastert & Fee, Planners, March 1997). There are about 254 dry wells in service, which are classified as injection wells, as defined by 40 C.F.R. §147. Approximately 180 dry wells are located in surplus areas. Dry well diameters range from 8 inches (20 cm) to 8 feet (2.4 m), while depths range from 6 feet (1.8 m) to greater than 100 feet (30 m) (U.S. Navy, January 1998). The dry wells are permitted under DOH Safe Drinking Water Branch underground injection control (UIC) program.

3.7.5 Electricity

Existing Regional Electrical System

HECO is a public utility which provides Oahu homes and businesses with electricity. Kahe Power Plant, located approximately 4 miles northwest of NASBP, is the primary electric generating facility for the entire island.

Other power-generating facilities include the privately owned Kalaeloa and AES plants and the City-owned H-POWER refuse-to-energy plant, all located in CIP. These facilities sell to HECO power that is distributed through a grid system consisting of overhead and underground power lines. The primary transmission line from the Kahe Plant is a 138 kilovolt (KV) overhead line to the Waiiau substation in Pearl City which serves the eastern portion of the island. While HECO has plans for transmission line improvements in other areas of the island, there are no planned improvements to the electrical system in the NASBP region.

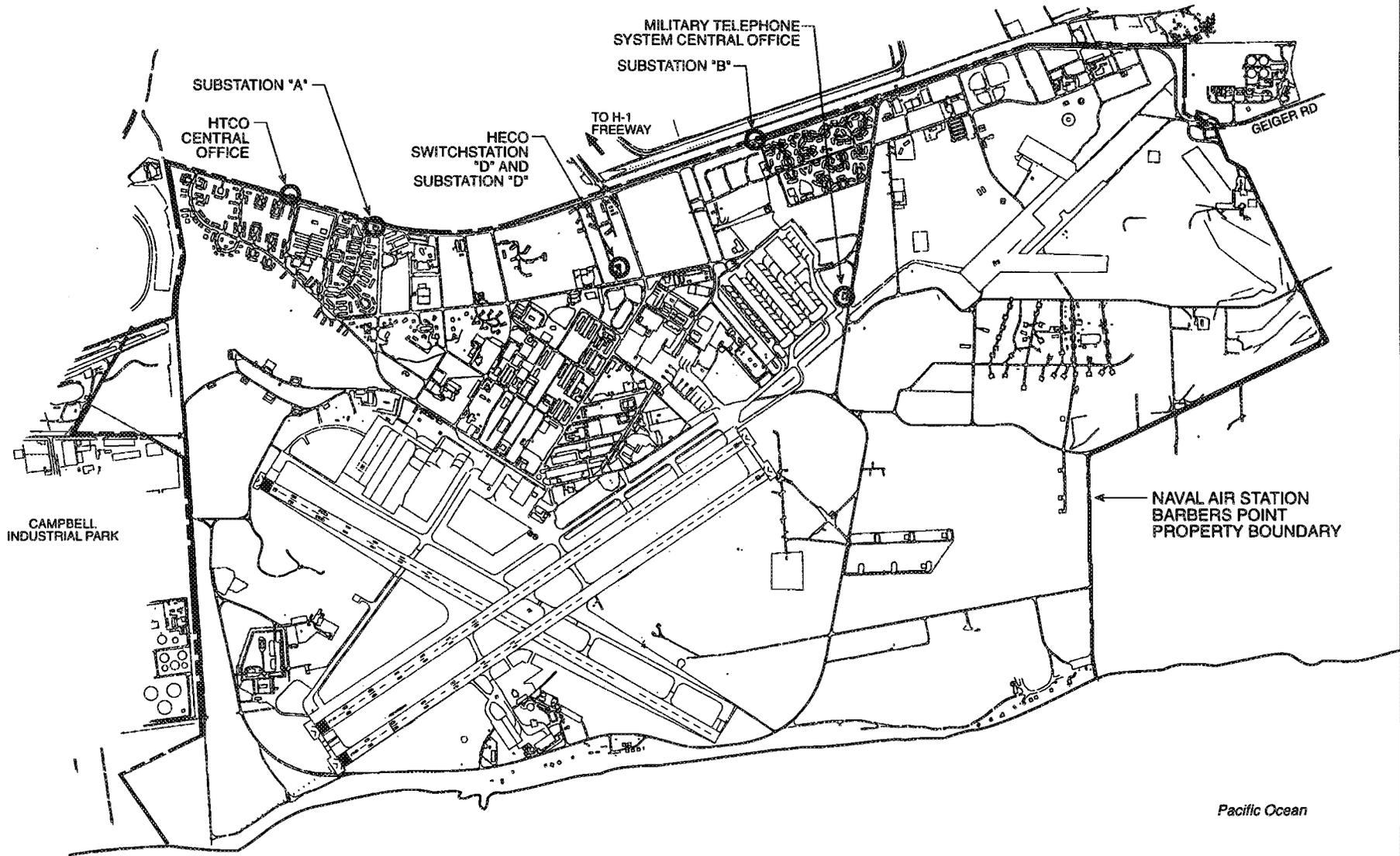
Existing NASBP Electrical System

NASBP receives primary power from HECO, at 46 KV. There are three primary circuit feeds entering the base along its northern property line. The primary source is located near the main gate, served from HECO's switch station D (Figure 3.7-5). The other two feeds are back-up sources in the event of problems or maintenance at the primary source. These feeds enter the base near Hornet Street and Bougainvillea Street. Each 46 KV feed connects to a Navy-owned substation which is operated and maintained by Navy PWC.

The transformer capabilities of the substations are as follows:

LOCATION	SERVICE
Primary Source - Substation D	11.5 and 4.16 KV
Back-up, Hornet Street - Substation A	11.5 and 4.16 KV
Back-up, Bougainvillea Street - Substation B	11.5 KV

Distribution within the base is through a combination of 11.5 KV and 4.16 KV overhead and underground lines. This on-base system is also owned and operated by Navy PWC, with the exception of service to Barbers Point Elementary School. This state facility is fed directly from a HECO primary circuit.



Source: Gray Hong Bills & Associates (November 1, 1996)

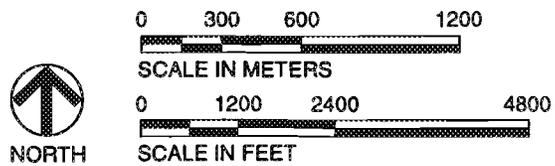


Figure 3.7-5
MAIN ELECTRIC AND TELEPHONE FACILITIES

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

The reported NASBP demand in 1996 was approximately 9.8 megavolt-amps (MVA) (Gray Hong Bills & Associates, November 1, 1996). The total capacity of the on-site electrical system is approximately 25 MVA.

3.7.6 Solid Waste

Existing Regional Solid Waste Facilities

The C&C of Honolulu's Division of Refuse Collection and Disposal in the DPW is responsible for refuse pick-up, transferral, hauling, and disposal from residential areas of the islands. Commercial establishments, condominiums, and multi-family residential developments contract with private haulers to dispose of refuse at DPW disposal sites. Currently, DPW has two main disposal facilities, the 1,800 TPD (1,633 metric TPD) H-POWER refuse to energy plant at CIP and the Waimanalo Gulch Landfill in the Ewa District. The current estimated island-wide municipal solid waste (MSW) generation rate is about 2,800 TPD (2,540 metric TPD).

The H-POWER plant accepts and processes MSW into a refuse-derived fuel which is burned for commercial power generation. Ash from the plant and noncombustible solid waste, or waste which cannot be processed into fuel, are disposed of at the Waimanalo Gulch Landfill. The estimated capacity of the landfill is 5 to 7 years; there are, however, plans to expand the facility to provide a 20-year capacity based on currently received tonnages (Memorandum for the Record, August 11, 1997).

On Oahu, there are also private and special waste disposal facilities, such as medical waste incinerators, composting facilities, an asbestos landfill, and a construction and demolition material landfill, which service selected waste generators and/or conserve capacity at Waimanalo Gulch Landfill.

Existing NASBP Solid Waste Facilities

There are no active solid waste landfills at NASBP. Nonrecyclable solid waste generated on base is transported by commercial refuse haulers to DPW facilities for disposal. NASBP has an active recycling program administered by Navy for some waste stream components, including glass, paper, newsprint, and cardboard. Upon base closure, the Navy Caretaker Site Office will continue to dispose of solid waste off site and will pursue markets for recyclable material until property transfer.

Generation Rates

Annual NASBP waste generation data for 1991 showed that of the 8,411 tons (7,629 metric tons) disposed, approximately 63 percent was potentially recyclable. On an average, the waste generation rate was about 24 TPD (22 metric TPD). While 1993 data are not available, waste generation rates are expected to be less than 1991 conditions due to the reduction in base activities that occurred during this time period.

3.7.7 Communications System

Existing Regional Telephone System

GTE Hawaiian Tel (Hawaiian Tel) is the main island-wide telephone company. Their service in the Ewa region is provided via overhead lines which are shared under the joint pole agreement established with the other utility systems.

Existing NASBP Telephone System

The existing NASBP telephone system is served by a combination of Hawaiian Tel and federal Oahu Telephone System lines (see Figure 3.7-5). The majority of the on-base infrastructure is Navy-owned. Hawaiian Tel, however, is responsible for maintenance of the entire telephone system. Telephone service is provided by a remote digital switch having a maximum capacity of 3,900 lines. Service from Hawaiian Tel's main facilities to the base is through a combination of fiber optic and copper lines.

Hawaiian Tel primarily serves the family housing areas. Their service originates at a central office near the Barbers Point Elementary School. The OTS lines, which originate from Building 92, serve the operational buildings on base.

Existing Regional Cable Television System

There are several cable television services available on Oahu. Each is privately owned but needs to operate under the requirements of the Public Utilities Commission (PUC) as dictated by state law. Primary cable television service in the region is provided by overhead lines, in accordance with the joint pole agreement conditions.

Existing NASBP Cable Television System

The existing cable television system on base is owned and operated by Oceanic Cable (Oceanic). Service lines are located in a combination of Oceanic- and government-owned duct lines, with overhead lines on Navy-owned poles. The Oceanic-owned duct lines are within the family housing areas.

CHAPTER FOUR

ENVIRONMENTAL CONSEQUENCES

In accordance with CEQ regulations, this FEIS presents all potential impacts and discusses only the potentially significant impacts in detail. In general, significance was determined by considering the absolute change from the existing condition (baseline conditions generally reflect NASBP activity levels in 1993, just prior to the base closure decision), duration of change, extent (geographical or population affected) of change, and the relationship between the change and compliance with applicable federal, State of Hawaii, or C&C of Honolulu laws, rules, ordinances, policies, or plans.

Various types of impacts (e.g., direct, indirect, and cumulative) are addressed herein, along with appropriate mitigation measures. Direct impacts are those resulting from Navy's disposal of surplus properties. Indirect impacts are those associated with the reuse of the surplus properties, which comprise most of the evaluations in this document. Cumulative impacts are those which may result from Navy's disposal of property, or the reuse of these properties, and other non-related activities.

In most cases, mitigation will be the responsibility of the LRA or the developer. Navy will be responsible for informing the appropriate bureau within the U.S. Department of Interior (DOI) of its responsibility to consult under Section 7 of the federal Endangered Species Act of 1973 prior to conveyance to the State of Hawaii and the C&C of Honolulu. Navy is also responsible for developing deed covenants with the State Historic Preservation Officer (SHPO) to ensure appropriate treatment of cultural resources affected by proposed reuse.

4.1 PHYSICAL ENVIRONMENT

4.1.1 Geology, Topography, and Soils

Impacts relating to geology, topography, and soils were not identified as significant issues during scoping. NASBP is not susceptible to erosion, even in the absence of BMPs, since soils are shallow and highly permeable, and the topography is relatively level.

4.1.1.1 Significance Criteria

Impacts on topography would be significant if major topographic features were removed. Impacts on soil stability would be significant if soils were inadequate to support proposed development. Impacts of existing soil contamination would be significant if contamination exceeded health protective levels in planned residential and recreational areas. Impacts of future hazardous substance storage on soil would be significant in the absence of industry-standard spill prevention plans and technology. (Impacts of erosion are addressed in Section 4.1.3.)

4.1.1.2 Potential Impacts and Mitigation

No impacts on soil stability would result from planned construction associated with redevelopment, as engineering designs will account for site soil conditions. Existing soil contamination would not pose significant health hazards to future residents or recreational facility users, as all contamination

will be cleaned up by Navy to concentrations identified as protective of human health. Future hazardous substance storage would be managed in accordance with federal and local regulations preventing soil contamination, i.e., spill prevention plans, BMPs for construction, and spill containment features in permanent facilities. (See also Section 4.1.2.2.)

The No Action alternative would not include demolition or construction and would have no impact on soils or topography.

4.1.1.3 Cumulative Impacts

No significant cumulative impacts on geology, topography, or soils would occur from reuse and No Action alternatives.

4.1.2 Groundwater Quality

The proposed reuse may affect the integrity of groundwater resources by:

- withdrawal or pumping of groundwater for potable and non-potable uses;
- injection of storm water runoff from dry wells into the groundwater;
- increase in impervious surface areas; and
- percolation of storm water runoff carrying contaminants originating from various land uses.

Uncontrolled withdrawal of groundwater from NASBP and other areas in the region could potentially affect the integrity of the regional resources and result in further salt water intrusion. Such intrusion would increase the chloride content. The National Secondary Drinking Water Regulation recommends limiting chloride content in drinking water to a level of 250 mg/L. Any activities that affect groundwater quality (including artificial saltwater intrusion and contaminants) may affect water quality in the sole anchialine pond on NASBP, Ordy Pond.

Reuse of the area would change the permeability of the ground surface and result in changes in drainage patterns, rainwater percolation, and quantity of storm water runoff. Such changes would affect the amount of storm water being discharged through the dry wells or percolating through the soil, potentially affecting the groundwater resources.

Cumulative effects on regional groundwater resources are assessed in Sections 4.7.1 and 4.7.2 on potable water and non-potable water.

4.1.2.1 Significance Criteria

Significant increases in surface pollutants or bulk storage of liquid products, without adequate spill controls, would increase the risk of contaminating groundwater and adversely affect the integrity of groundwater. Therefore, use of substances that could contaminate the groundwater without adequate controls is considered significant.

4.1.2.2 Potential Impacts and Mitigation

The four reuse scenarios consist of light industrial, residential, commercial, recreational, open space, park, and other public facilities. Except for the No Airport alternative, airport use is considered. Contaminants such as petroleum products, solvents, metals, or other toxic chemicals associated with airport and light industrial operations may be accidentally released into the ground. Rainwater carrying these contaminants may percolate through the subsurface, drain into the dry wells, and affect groundwater quality. Localized effects from airport or light industrial activities on groundwater would not be significant if they are mitigated by:

- providing adequate containment for chemical or fuel storage areas;
- preventing spills or accidental releases of chemicals;
- designating a well-contained area for maintenance activities, including changing oil from cars;
- properly disposing wastes generated by operations; and
- writing and implementing storm water pollution prevention plans.

Public facilities, commercial/recreational areas, housing, and parks would generate nonsignificant amounts of contaminants. Sources of potential groundwater contamination would be associated with landscape and maintenance activities. These activities may increase nutrient and chemical levels in groundwater, especially if the ground surface contains residual chemicals from fertilizer or pesticide applications. The impacts associated with the use of chemicals or fertilizers may be mitigated to nonsignificance by:

- minimizing clearing of natural wooded areas which do not require treatment;
- selecting native species and low water-consumption plants for landscaping; and
- relying on mechanical rather than chemical means of control such as trimming; cutting, and pulling.

No significant impacts would occur with the controls and mitigation identified.

To encourage the protection of water recharge areas, important for the maintenance of streams and the replenishment of aquifers, the LRA, the Barbers Point NAS Redevelopment Commission, should:

- coordinate with the county government to incorporate the reuse plan into the county's 20-year Water Use and Development Plan; and
- coordinate with the Land Division of the State Department of Land and Natural Resources to incorporate the reuse plan into the 20-year State Water Projects Plan.

The No Action alternative would result in no change, assuming the continuation of presently programmed cleanup actions.

4.1.2.3 Cumulative Impacts

No significant cumulative impacts on groundwater quality are anticipated with existing management of groundwater resources.

4.1.3 Surface Water Quality

Surface waters have the potential to be affected by point and non-point sources of contamination. Point sources are mainly associated with facility discharge outfalls, while non-point sources are associated with surface runoff from land and are a function of the land use activities.

At NASBP, the primary receiving water body is the ocean. Other water bodies include an anchialine sinkhole (Ordy Pond), two coastal salt flats, and a seasonal wetland as shown in Figure 3.2-1. A drainage channel serving the area west of the NASBP outfalls to the ocean just west of the NASBP boundary. Except for the seasonal wetland, the other wetlands are located outside the area of surplus land covered in this EIS. However, since Ordy Pond is adjacent to the lands being evaluated, the effects of land changes on this pond will also be evaluated.

The habitat value of the wetlands is discussed in Section 4.2, Biological Resources. An evaluation of surface water quality impacts from industrial activities is given below.

4.1.3.1 Significance Criteria

Should increases in discharge flows result in exceedance of discharge limits for the Honouliuli Wastewater Treatment Plant (WWTP), the impact on coastal water quality would be considered significant. Any point source discharges would be significant if an expansion of the zone of mixing (ZOM) is required.

Filling or dredging in wetlands or coastal waters would potentially affect water quality. Any filling of or dredging in wetlands or coastal waters such that beneficial uses are impaired or destroyed would be considered significant.

4.1.3.2 Potential Impacts and Mitigation

The potential effects of the alternatives on open coastal waters, Ordy Pond, and other wetlands and mitigation measures are discussed in the foregoing sections.

Open Coastal Waters. As discussed in Section 4.7.3, Wastewater, the discharge flows for all alternatives considered would not result in exceedances of discharge limits for the Honouliuli WWTP. Therefore, none of the alternatives evaluated would have a significant effect on water quality that would require expansion of the ZOM.

Land uses along the coast would remain unchanged. No large petroleum storage facilities are planned. Thus, no significant releases of petroleum products are anticipated. Water quality along the beach would continue to be required to meet recreational standards which ensure safe recreational use. Because of the topography along the shore, runoff from construction or operations would be similar to existing conditions. The water quality effects of these activities are generally mitigated to nonsignificance by existing laws and regulations covering industrial or construction-related runoff. Implementing storm water pollution prevention plans would further minimize the risk of impacts. Thus, no significant water quality impacts are expected due to runoff from these adjacent areas.

Should the construction of drainage outfalls be required, excavation or dredging in near shore waters would increase turbidity in the receiving waters. The construction impacts could be localized within the work zone by implementing BMPs such as silt curtains. (BMPs are a standard requirement of NPDES permits for construction activity. Specific BMPs could be proposed at the time of permit application.) The long-term and cumulative impacts of storm water runoff discharged from a drainage channel are detailed in Section 4.7.4, Drainage.

Ordy Pond. Lands surrounding Ordy Pond are designated for a marine park facility under the State-preferred alternative, and for sport fields or an amphitheater under the Large Airport, the Small Airport, and the No Airport alternatives. Impacts on Ordy Pond would be minimal and limited to runoff associated with construction and operation, which could be mitigated by implementing proper site control and a BMP plan.

No significant impacts on Ordy Pond are expected. Dredging or excavation within the pond is not anticipated, and clearly marking the pond boundaries would prevent inadvertent impairment or destruction of beneficial uses of the pond.

Other Wetlands. The seasonal wetland is surrounded by land designated for light industrial uses. Future point source discharges, if any, to receiving waters have not been determined. No dredging or excavating within the wetland is anticipated. This wetland could potentially be affected by construction and operation of light industrial or recreational facilities. Construction impacts may include runoff and potential spillage of oil from heavy machinery. These impacts can be mitigated by:

- clearly marking the wetland area;
- implementing proper site control; and
- implementing a BMP Plan as required by the NPDES program, specified in Hawaii Administrative Rules (HAR) Chapter 11-55, Water Pollution Control.

Long-term impacts may result from storm water runoff from light industrial facilities. Pollutants associated with light industrial activities may be conveyed to the wetland during rainfall events, affecting the beneficial uses of the wetland. Pollutant releases into storm water runoff can be controlled by:

- siting facilities away from the wetland;
- implementing a BMP plan and spill control measures; and
- writing and implementing storm water pollution prevention plans.

For other surface waters, potential contamination from non-point sources and surface releases of petroleum products could occur with industrial land use activities. The water quality effects of these land uses are generally mitigated to nonsignificance by existing laws and regulations covering industrial or construction-related runoff.

As mentioned in Section 4.1.2.2, to encourage the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers, the LRA, the Barbers

Point NAS Redevelopment Commission, should:

- coordinate with the county government to incorporate the reuse plan into the county's 20-year Water Use and Development Plan; and
- coordinate with the Land Division of the State Department of Land and Natural Resources to incorporate the reuse plan into the 20-year State Water Projects Plan.

4.1.3.3 Cumulative Impacts

Significant cumulative impacts on surface water could occur from regional drainage. This issue is an unresolved issue identified in Section 4.7.4 Drainage, and must be resolved by the LRA and affected parties.

4.1.4 Air Quality

4.1.4.1 Significance Criteria

National Ambient Air Quality Standards (NAAQS), 42 U.S.C. §7409; 40 C.F.R. Part 50, have been established by EPA for the following pollutants, referred to as criteria pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (particulate matter less than 10 microns in diameter [PM-10] and particulate matter up to 2.5 microns in diameter [PM-2.5]), ozone (O₃), and lead (Pb). NAAQS criteria are used to designate all air regions within the U.S., by pollutant, into one of the following categories: attainment, nonattainment, and unclassifiable. Based on ambient air monitoring data, regions that do not meet the NAAQS are classified as nonattainment; regions better than the standard are classified as attainment. As discussed in Section 3.1.4, the NASBP area and the entire state of Hawaii are in attainment of all NAAQS. These standards, along with State AAQS, provide the basis for air pollution control rules and permitting procedures.

Air quality in the State of Hawaii is managed by rules and permitting procedures administered and enforced by DOH. In the broadest of terms, the rules require that any person, including any public body, who causes air pollution or the emission of any regulated (e.g., those pollutants that have NAAQS) or hazardous air pollutant must first secure approval in writing from DOH. HAR Chapter 11-60.1, Air Pollution Control, specifies general prohibitions, provisions for open burning, operating permit requirements for noncovered sources and covered sources, Prevention of Significant Deterioration requirements, standards of performance for stationary sources, and requirements for hazardous air pollutant sources, among others. As specified in the prohibitions subchapter, DOH prohibits the generation of fugitive dusts without taking reasonable precautions to limit such emissions; hence, all identified sources of fugitive dust would be mitigated.

Stationary Source Criteria

All stationary-type sources are regulated by the DOH Clean Air Branch through their operating permit program as presented in HAR Chapter 11-60.1. Planned emissions must be permitted by DOH prior to construction and operation. Requirements of HAR Chapter 11-60.1, which address the requirements of the federal Clean Air Act Amendments of 1990, 42 U.S.C. §7401, serve as the criteria for air quality impacts from stationary sources of emissions.

Mobile Source Criteria

HAR Chapter 11-60.1 establishes no requirements or authoritative body for managing emissions from mobile sources (e.g., vehicles and aircraft), other than the implied understanding that they must not cause violations of state or federal AAQS. Aside from federal emission standards, regulatory authority and control of mobile sources are minimal at both the state and federal levels when compared with those associated with stationary sources. However, all emission sources must not cause an exceedance of the state or national AAQS. For this reason, AAQS have been used to determine whether impacts due to mobile sources may be significant.

Motor Vehicles. Vehicular sources emit criteria pollutants such as CO, NO₂, SO₂, and PM-10, as well as volatile organic compounds (precursors to ozone). Of these pollutants, CO is the primary emission constituent from motor vehicles; it is also the cause of short-term, localized, and elevated concentrations described as "hot spots" that can cause acute health effects from short-term exposures. These hot spots, located along heavily-traveled transportation corridors, are a function of vehicular delays, number of vehicles, and meteorological conditions.

Vehicular emissions of CO have been evaluated at both regional and local levels. Project-related regional emissions have been estimated and compared to baseline regional emissions to assess whether their impacts would be significant. Project-related localized emissions have been evaluated on a qualitative basis using information about future traffic conditions. Because the impact on air quality due to vehicular emissions is a function of vehicular delays, traffic projections have been used to infer potential effects on air quality. If vehicular delays are significantly increased, as identified by a change in Level of Service (LOS) classifications, e.g. from LOS D to LOS E, the potential for CO hot spots increases. However, if the LOS is not significantly degraded from the baseline condition, no significant impact to air quality is expected.

Aircraft. In addition to vehicles, aircraft are another source of mobile emissions. The FAA's *Policies and Procedures For Considering Environmental Impacts* (Federal Aviation Administration, Department of Transportation, December 5, 1986) have been used to identify significance criteria for these types of emission sources. Based on FAA procedures, an air quality analysis is required for consideration if specific activity levels are exceeded (if annual enplanements exceed 1,300,000 passengers or annual general aviation operations exceed 180,000). If one of these two conditions exists, an emission inventory and possibly air dispersion modeling studies would be required to evaluate whether or not national and state air quality standards could be exceeded. Three-year projections (from the date the EIS is finalized) are used because FAA assumes EISs remain valid for a three-year period.

4.1.4.2 Potential Impacts and Mitigation

Stationary Source Impacts

No significant impacts to air quality would occur as a result of the alternatives because all stationary sources of emissions must obtain approval and must comply with DOH permit procedures. Permit approval is contingent upon demonstrating whether or not significant emissions could occur, and if so, that the emissions would not cause an exceedance of state and national AAQS, along with the other provisions of HAR Chapter 11-60.1.

No significant impacts on air quality would occur because of the regulatory requirements identified; however, the alternatives have been evaluated for their potential to emit air pollutants. This evaluation was done by assuming that areas designated for industrial and commercial use would have the greatest probability for containing stationary source emissions, and that the potential for air emissions is proportional to the area planned for these land uses.

Based on the aforementioned assumptions, the No Airport alternative would have the greatest potential for pollutant emissions from stationary sources because it has the greatest area designated for commercial and light industrial uses. In addition, this is the only alternative that includes a power plant, which would pose specific air quality concerns. The remaining reuse alternatives contain smaller areas designated for commercial and light industrial uses. Correspondingly, stationary source emissions of significant levels from these reuse alternatives would be less than the No Airport alternative. Based on the amount of area designated for industrial/commercial use, the potential for pollutant emissions from stationary sources decreases relative to the No Airport alternative in the following order (from greatest to least): the Large Airport alternative (519 acres [210.0 hectares]), the State-preferred alternative (515 acres [208.4 hectares]), and the Small Airport alternative (489 acres [197.9 hectares]). No stationary source emissions would occur in the No Action alternative; this alternative would decrease air emissions relative to baseline conditions.

Mobile Source Impacts

Motor Vehicles. No significant impacts on regional air quality are expected with the increase in vehicle trip ends relative to the baseline condition (28,000/day). The Large Airport alternative has the highest projected number of vehicle trip ends on a typical weekday and is expected to generate the greatest emissions of air pollutants from motor vehicles. Out of all the reuse alternatives, the State-preferred alternative would generate the least emissions. Table 4.1-1 summarizes these emissions, which represent less than 5 percent of the total emissions on Oahu and would not have regional impacts because there are no atmospheric or physical barriers to restrict mixing and cause emissions to concentrate in the region.

No significant localized impacts on air quality are expected if the traffic mitigation measures described in Section 4.1.7.2 are implemented. Without the traffic mitigation measures, the potential for localized impacts of CO would be highest in the Large Airport alternative, followed by all other reuse alternatives with similar impacts. These findings are based on the following: (1) the Large Airport alternative is likely to create the greatest number of intersections experiencing a significant degradation in LOS (increasing traffic delays) (see Tables 4.1-6 and 4.1-7), and (2) traffic delays increase CO emissions.

Aircraft. No significant impacts on air quality would be expected with the change in aircraft types and operations at the airport. This determination is based on comparing year 2020 passenger and general aviation operations with FAA criteria for determining if an air emissions analysis is warranted. Because EISs are assumed by FAA to be valid for a period of three years, passenger and general aviation operations representing year 2002 should be used. Based on the data available and to err on overestimating the projections, year 2005 data have been used. Year 2005 projections indicate no passenger service and 153,000 general aviation operations (see Table 4.1-2 for general aviation operations). Because these projections are less than the FAA criteria used to determine if an air emission analysis is needed i.e., not more than 1,300,000 annual passenger enplanements

**Table 4.1-1
Summary of Vehicular Emissions**

Parameter	Alternatives					Regional Air Shed (Oahu) ^a
	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action	
Average Daily Vehicle Trip Ends (trips/day)	50,366	61,014	54,503	56,372	12,565	—
Existing Average Daily Vehicle Trip Ends (trips/day)	28,000	28,000	28,000	28,000	28,000	—
Net Change in Average Daily Vehicle Trip Ends (trips/day)	22,366	33,014	26,503	28,372	(-15,435)	—
Trip Length (miles) ^c	20	20	20	20	20	—
Vehicle Miles Traveled (VMT) per Day ^d	447,320	660,280	530,060	567,440	(-308,700)	14,800,000 ^b
Emission Factor for CO (grams/vehicle-mile) ^e	21.4	21.4	21.4	21.4	21.4	21.4
Emissions of CO (lbs/day) ^f	21,085	31,123	24,985	26,747	(-14,551)	697,621
Emissions of CO (tons/year) ^g	3,848	5,680	4,560	4,881	(-2,656)	127,316
Percent of CO Emissions in Relation To Island- Wide Emissions	3	4	4	4	(-2)	100

^a C&C of Honolulu.

^b Based on C&C of Honolulu annual VMT for 1992 (Source: State of Hawaii Department of Business, Economic Development & Tourism, *Data Book*, 1993-1994). Daily VMT = Annual VMT/365 days per year.

^c Trip length for regional area is based on estimated distance from NASBP to downtown Honolulu. Use of this figure will overestimate VMT because many of the trip lengths will be less than 20 miles.

^d VMT = ADT (trips/day) x trip length (miles).

^e Emission factors obtained from EPA's MOBILE5a for 1995. Assumed speed is 35 miles per hour (mph).

^f Emissions (lbs/day) = Emission factor (grams/vehicle-mile) x VMT (vehicle-miles/day) x 1/454 (lb/g)

^g Annual emissions based on 365 days per year.

Source: Institute of Transportation Engineers. *Trip Generation*, 5th Edition. 1991.

or 180,000 annual general aviation operations, no significant impacts from aircraft emissions on air quality are expected, and no mitigation is required.

4.1.4.3 Cumulative Impacts

No significant cumulative impacts on air quality are expected from the redevelopment and No Action alternatives. This determination assumes implementation of specific regulatory controls and traffic mitigation plans. The potential for significant cumulative impacts on air quality due to the proximity of CIP would be mitigated by the regulatory requirements that prohibit such impacts from occurring. Operating permits for stationary source emissions, required from the DOH, would be contingent upon an air quality analysis that considers the cumulative impacts of other sources. Impacts from other sources would be included by either background ambient air quality data or emission estimates, as required by DOH.

**Table 4.1-2
Annual Aircraft Operations, Forecast for Kalaeloa Airport
1993 to 2020 for All Airport Alternatives**

Kalaeloa Airport	Actual 1993	2000	2005	2010	2015	2020
Airport Operations Relocated to NASBP						
Honolulu International	—	41,200	48,200	56,000	64,900	78,000
Dillingham Airfield	—	17,800	20,200	22,600	25,100	27,900
Ford Island ALF	—	62,700	62,700	62,700	62,700	62,700
Hawaii Aviation Training Center	—	—	21,900	21,900	21,900	21,900
U.S. Coast Guard & Hawaii National Guard	—	13,100	13,100	13,100	13,100	13,100
Total	68,390*	134,800	166,100	176,300	187,700	203,600
Total general aviation*	No data	121,700	153,000	163,200	174,600	190,500
Based Aircraft Relocated to NASBP						
Honolulu International	—	101	119	139	158	181
Dillingham Airfield	—	11	12	13	13	14
Hawaii Aviation Training Center	—	—	11	11	11	11
Total	—	112	142	163	182	206

*Total general aviation (assumed) = Total - U.S. Coast Guard and Hawaii National Guard

* 1993 operations from U.S. Navy.

Source: Aries Consultants Ltd. (June 1998)

Aircraft Noise

Criteria established specifically for airport operations include the FAA's Federal Aviation Regulations (FAR), Part 150, *Recommendations for Land Use Compatibility in Yearly Day-Night Average Sound Levels (DNL)*, and the State of Hawaii, DOT, Airports Division, *Recommendations for Local Land Use Compatibility* as summarized in the *Kalaeloa Airport Master Plan Draft Report* (Aries Consultants Ltd., June 1996).

The FAA criteria suggest that sound levels lower than 65 DNL would be compatible with all land uses, while the State of Hawaii criteria suggest that sound levels lower than 60 DNL are compatible. The State of Hawaii criterion represents a compromise between the near-zero risk level of 55 DNL and the significant risk level of 65 DNL for naturally ventilated structures. The additional sensitivities caused by the "open environment" life style in Hawaii and the reduced sound attenuation values of housing structures were considered when the 60 DNL criterion was established.

In addition to using the 60 DNL noise level to represent a significant potential impact, an incremental increase of 1.5 DNL was used to determine if the change in noise levels is significant within noise-sensitive areas. This approach is based on FAA's environmental analysis procedures with one modification. For this evaluation, the noise sensitive area is defined as bounded by the 60 DNL contour rather than FAA's recommended 65 DNL contour (December 5, 1986). The 60 DNL contour was selected for use because it is the level recommended by DOT to define a significant noise impact.

Other Noise-Generating Activities

Noise emanating from the raceway park and other activities would be regulated by DOH and would be subject to the requirements of HAR Chapter 11-46, Community Noise Control. These rules define the maximum permissible sound levels to prevent, control, and abate noise pollution from stationary noise sources and equipment related to agricultural, construction, and industrial activities. Sources not subject to these rules include: authorized emergency vehicles; civil defense warning systems; activities related to the emergency maintenance and repair of state and county highways, parks, and public utilities including but not limited to water, sewer, electric, gas, and telephone systems; vehicular noise covered under HAR Chapter 11-42, Vehicular Noise Control for Oahu; boat whistles; backup alarm devices on trucks and other construction vehicles; fireworks; and activities at airports.

Maximum permissible sound levels are defined for specific zoning districts. Table 4.1-3 summarizes the allowable noise levels by zoning district classes. The most sensitive zoning district is Class A, which includes lands zoned Residential and Preservation. The Class A zoning district has corresponding maximum permissible sound levels of 55 dBA during the daytime (7 a.m. to 10 p.m.) and 45 dBA during the nighttime (10 p.m. to 7 a.m.). For these areas, the maximum permissible sound levels cannot be exceeded at the property line at any time for more than 10 percent of the time within any 20-minute period without a permit from DOH, nor can they exceed, for impulsive type noises, a level 10 dBA greater than their corresponding maximum permissible sound levels.

**Table 4.1-3
Allowable Noise Levels**

Zoning Districts	Allowable Noise Levels in dBA	
	Daytime	Nighttime
	7 a.m. - 10 p.m.	10 p.m. - 7 a.m.
Class A (residential, conservation, preservation, public space, open space, or similar type)	55	45
Class B (multi-family dwellings, apartment, business, commercial, hotel, resort, or similar type)	60	50
Class C (agriculture, country, industrial, or similar type)	70	70

Source: State of Hawaii Department of Health, HAR Chapter 11-46, *Community Noise Control*.

No quantitative analysis was conducted for the proposed raceway park and other noise generating activities. These activities are only in the proposal or conceptual stage and have not yet been confirmed. Environmental assessments or impact statements in compliance with Hawaii Revised Statutes (HRS) Chapter 343 would be conducted by the proponents for these specific activities at a later time.

4.1.5.2 Potential Impacts and Mitigation

Aircraft Noise

The potential noise effects and mitigation associated with proposed reuse alternatives are discussed herein. The primary indicator in comparing noise impacts between alternatives is aircraft noise.

Noise levels were estimated based on annual aircraft operations by aircraft type. These data, compiled during the base reuse planning process, are based on reviews of historical and forecast general aviation activity on Oahu, aircraft owner surveys, interviews with the commercial aviation and fixed base operators, and input from the U.S. Coast Guard and Hawaii National Guard. A summary of the aircraft operations in 1993 and projected through the year 2020 is provided in Table 4.1-2. This table shows a total of 203,600 aircraft operations in 2020.

Potential noise impacts were estimated from various airport use scenarios using the FAA Integrated Noise Model and based on user inputs, including airport runway configurations, runway uses, flight tracks, average daily frequency of aircraft operations and types, arrival and departure routes, and the hours of flight operations. A summary of daily average operations per aircraft type and by alternative is in Appendix C. As summarized in Appendix C, all airport-containing alternatives have the same number of annual and daily aircraft operations (only the area of land dedicated for airport use varies between alternatives). All airport alternatives assume 203,600 aircraft operations in 2020. This includes 21,900 annual operations for the University of Hawaii's aviation training center, which was identified after the forecasts in the *Kalaeoloa Airport Master Plan Draft Report* (Aries Consultants Ltd., June 1996) were prepared. The Kalaeoloa Airport is one of several airports in the state being considered by the University of Hawaii for their aviation training center.

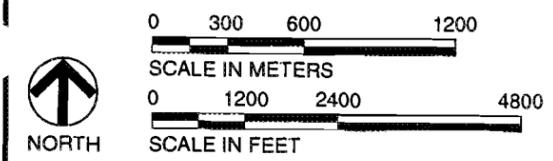
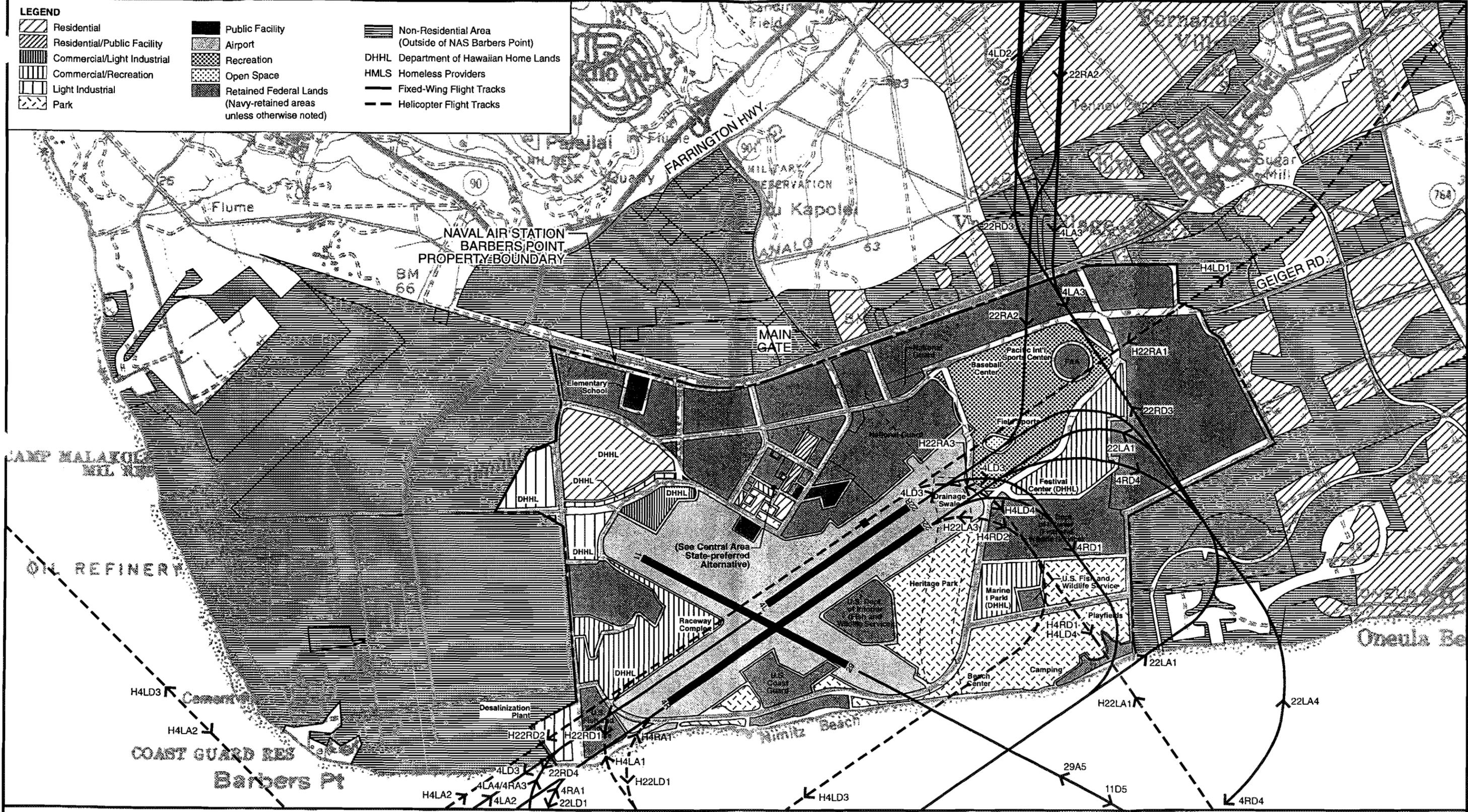
Flight tracks for the State-preferred, Large Airport, and Small Airport alternatives are provided in Figures 4.1-1 through 4.1-3, respectively. These diagrams show that the flight patterns are designed to minimize noise impacts on the surrounding communities as most tracks are directed towards the ocean. Flight track patterns are similar, but not the same, between the alternatives. The primary difference between the alternatives is the use of the Runway 11-29 (crosswind runway). The availability of Runway 11-29 in the State-preferred and Large Airport alternatives allows the relatively louder C-130 aircraft to depart in tradewind conditions and land in Kona conditions (winds originating from a southerly direction) on this runway, thus directing overflights over the ocean and avoiding overflights over land (Ewa Marina area).

Noise levels resulting from the effects of assumed aircraft operations and flight tracks, among other factors, are illustrated in Figures 4.1-4 through 4.1-6 for the State-preferred, Large Airport, and Small Airport alternatives, respectively. In all of the airport reuse alternatives, the noise levels would be lower than the baseline levels, which reflect base activity when the base closure decision was made in 1993 (represented in Figure 3.1-2), and would be lower than 60 DNL in all noise-sensitive areas (existing and planned residential areas). Baseline noise levels reflect aircraft operations by predominantly larger and noisier military aircraft (e.g., P-3, C-130, A-4, F-15) than the predominantly smaller and quieter general aviation aircraft (e.g., Cessna 172, Piper 31) and infrequent larger aircraft (C-130) associated with the reuse alternatives. Because no increases in noise levels would occur, the second criterion (an increase of 1.5 DNL) used to determine if noise impacts are significant was not met; hence, no significant noise impacts would occur as a result of the aircraft operations associated with the reuse alternatives.

A comparison between alternatives shows that there are slight variations in the noise contours and affected areas, but for the most part, the noise contours are similar in shape and affect non-residential land use areas only. The foregoing discussions provide descriptions of the airport runways and aircraft assumptions, along with a summary of the noise impacts.

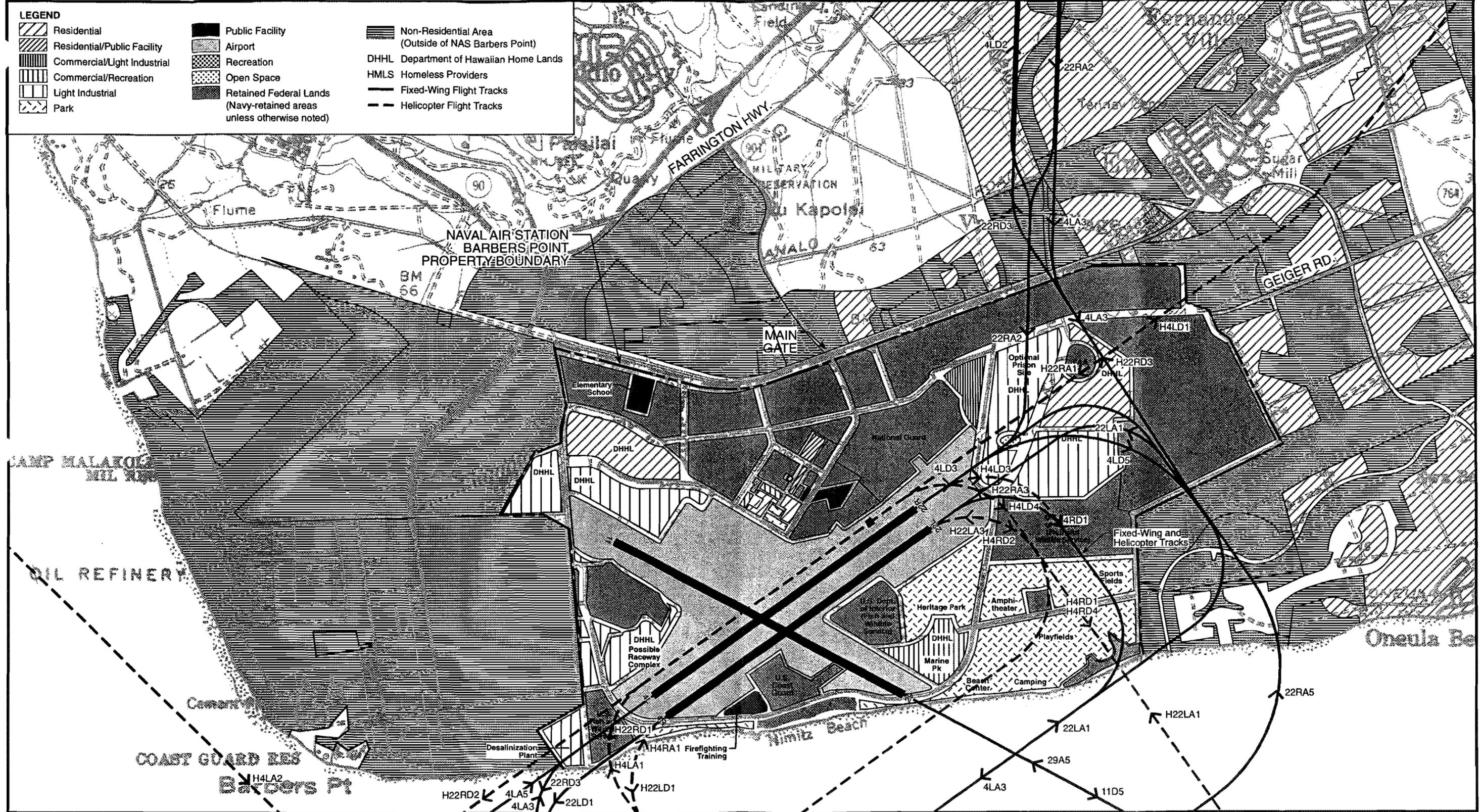
State-preferred Alternative. Based on DOT's Airport Layout Plan (February 28, 1998), 8,000 feet of Runway 4R-22L, the inland-most 4,500 feet of Runway 4L-22R, and 6,000 feet of Runway 11-29 would be used in the State-preferred alternative. The 8,000-foot runway would accommodate the requirements of the commercial airlines and the military for designation of an alternate landing site. The 4,500-foot runway would be used by general aviation aircraft operations; the 6,000-foot crosswind runway would be used for takeoffs over the ocean on Runway 11 and landings over the ocean on Runway 29 (State of Hawaii Department of Transportation, April 21, 1997). In this alternative, U.S. Coast Guard and Hawaii National Guard would be accommodated, in addition to the general aviation fixed-wing and helicopter aircraft.

Noise levels estimated for the State-preferred alternative are illustrated in Figure 4.1-4. These data show that the significant noise level of 60 DNL would not affect residential or other noise-sensitive areas. With the exception of a small area to the southeast of the NASBP property, none of the noise levels equal or exceed 60 DNL outside of the existing NASBP property boundaries. Conversely, baseline noise levels, represented in Figure 3.1-2, show that the 60 DNL contour extends beyond the existing NASBP property boundaries in several areas not only to the southeast, but also to residential areas north of NASBP, commercial/light industrial areas to the west of NASBP, and undeveloped areas west of NASBP.



Sources: NASBP Land Use: Helber Hastert & Fee Planners (December 1997);
 Federal Retention Areas: PACNAVFACENGCOM (September 28, 1998);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Flight Tracks: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-1
FLIGHT TRACKS:
2020 STATE-PREFERRED ALTERNATIVE
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



LEGEND

	Residential		Public Facility		Non-Residential Area (Outside of NAS Barbers Point)
	Residential/Public Facility		Airport		DHHL Department of Hawaiian Home Lands
	Commercial/Light Industrial		Recreation		HMLS Homeless Providers
	Commercial/Recreation		Open Space		Fixed-Wing Flight Tracks
	Light Industrial		Retained Federal Lands (Navy-retained areas unless otherwise noted)		Helicopter Flight Tracks
	Park				

0 300 600 1200
SCALE IN METERS

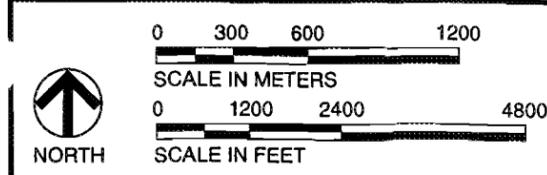
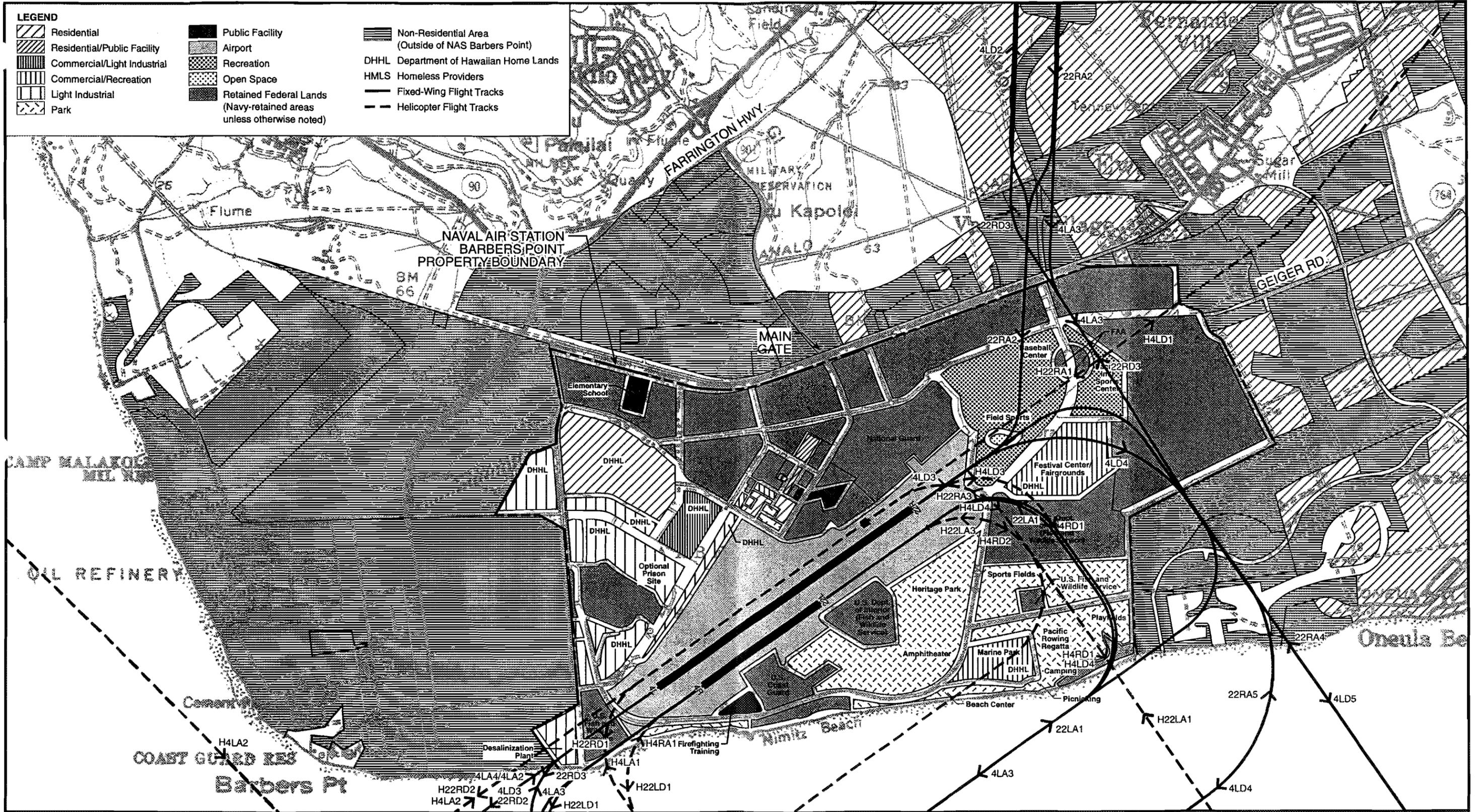
0 1200 2400 4800
SCALE IN FEET

NORTH

Sources: NASBP Land Use: Helber Hastert & Fee Planners (December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Flight Tracks: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-2
FLIGHT TRACKS:
2020 LARGE AIRPORT ALTERNATIVE

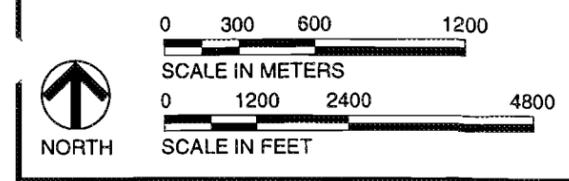
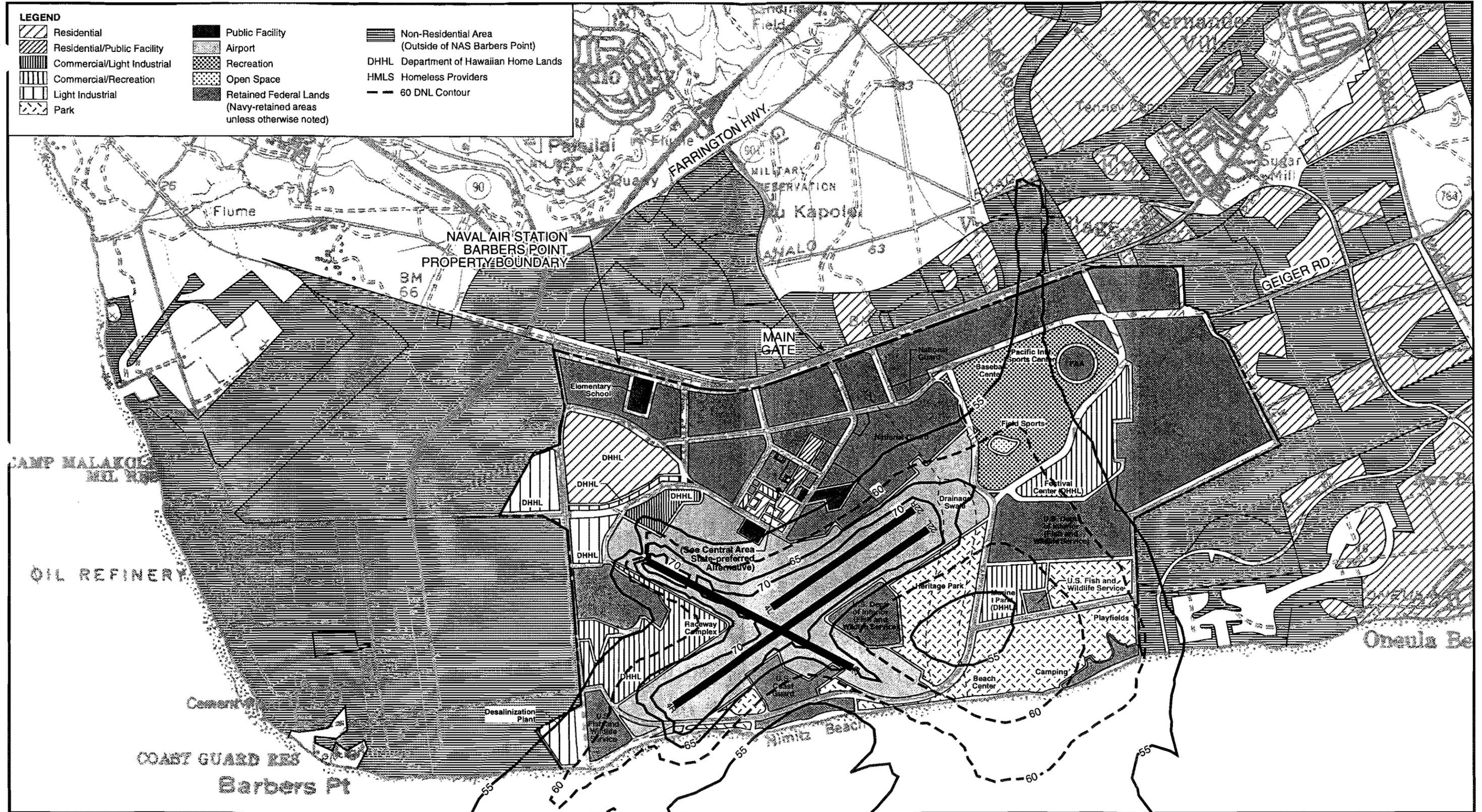
EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



Sources: NASBP Land Use: Helber Hastert & Fee Planners (December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Flight Tracks: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

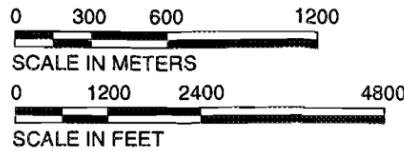
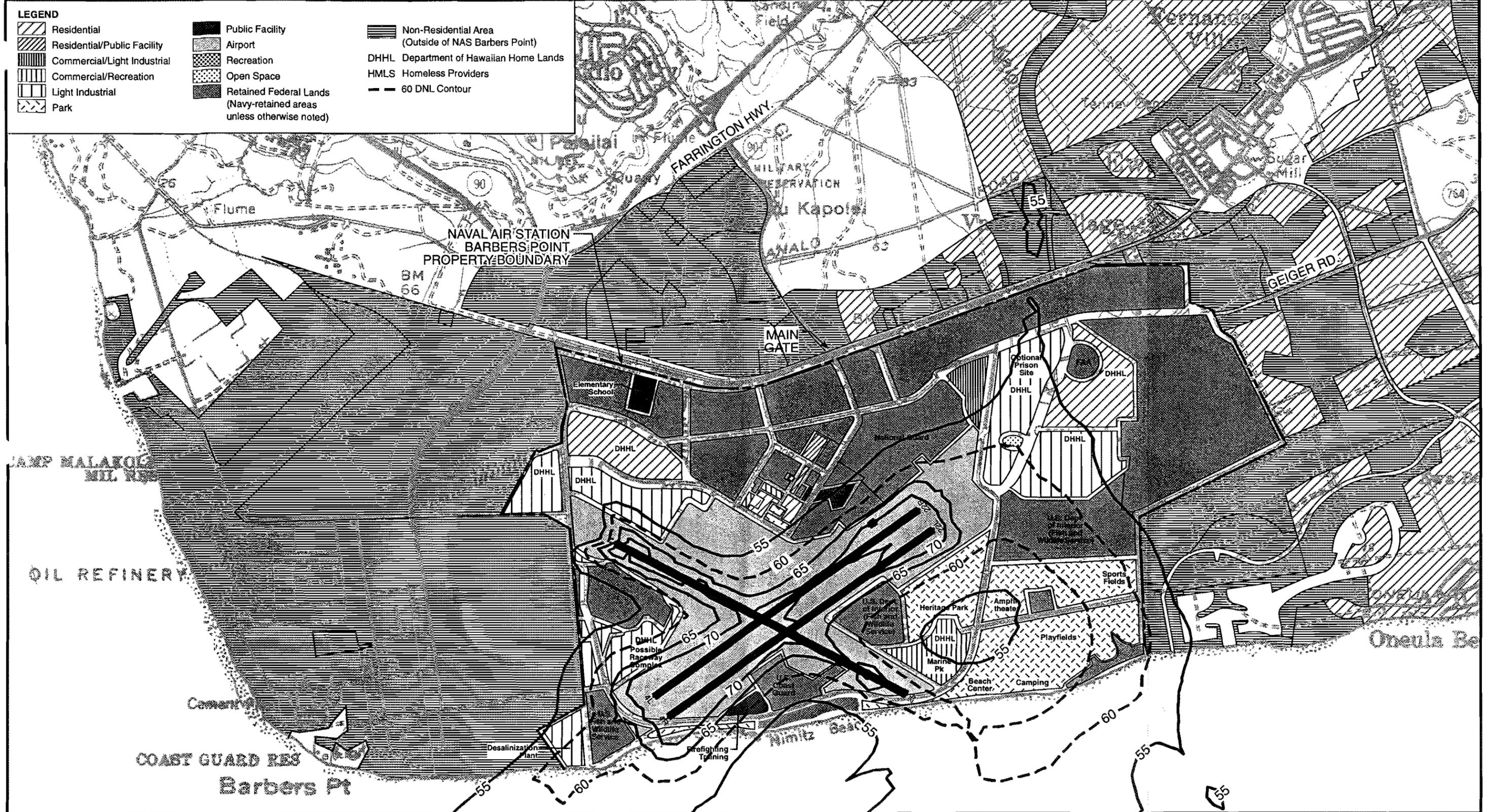
Figure 4.1-3
FLIGHT TRACKS:
2020 SMALL AIRPORT ALTERNATIVE

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



Sources: NASBP Land Use: Helber Hastert & Fee Planners (December 1997);
 Federal Retention Areas: PACNAVFACENGCOM (September 28, 1998);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan, October 1997;
 Noise Contours: Aries Consultants Ltd. (March 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

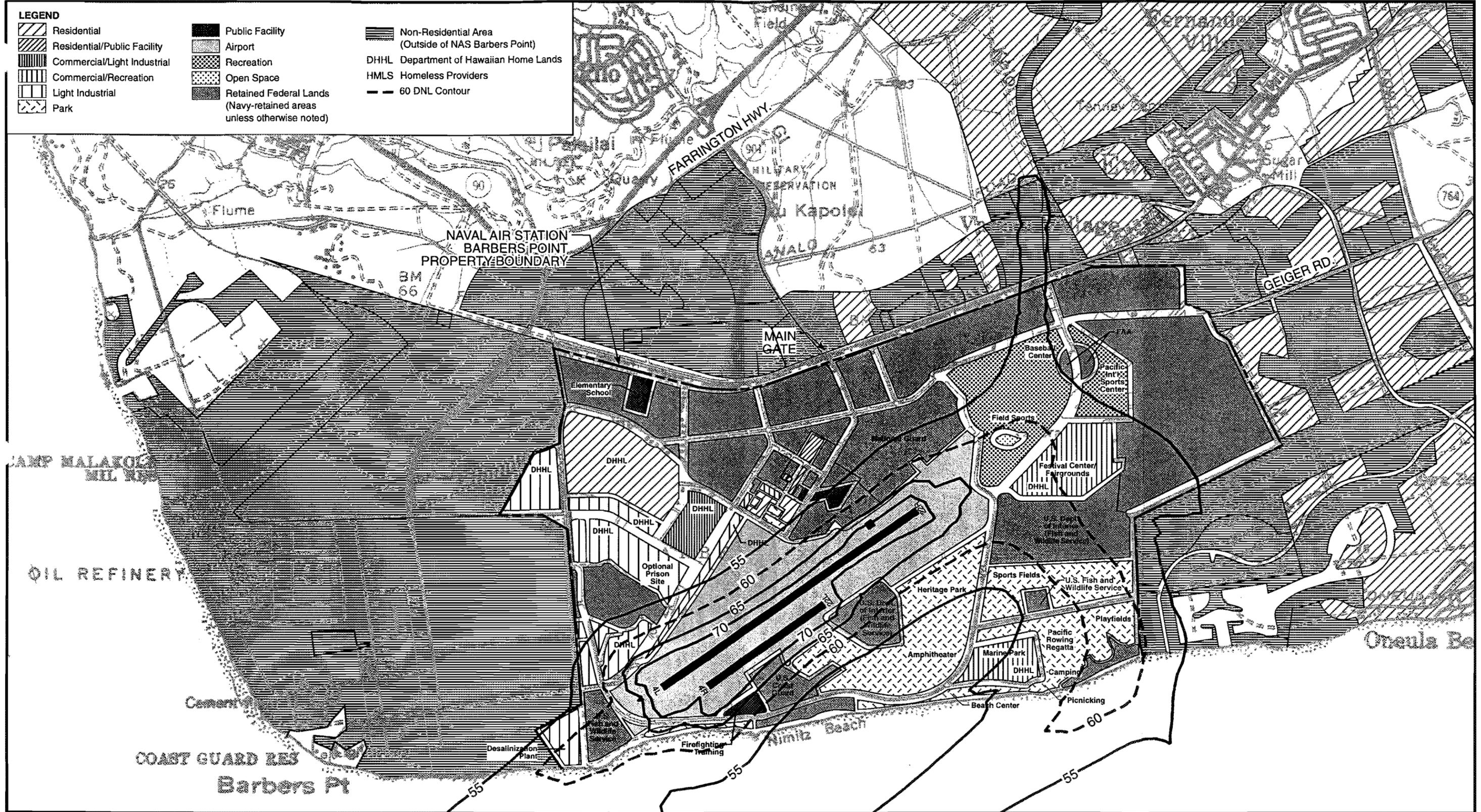
Figure 4.1-4
NOISE CONTOURS:
2020 STATE-PREFERRED ALTERNATIVE
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



Sources: NASBP Land Use: Helber Hastert & Fee Planners (March 1997 and December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Noise Contours: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-5
NOISE CONTOURS:
2020 LARGE AIRPORT ALTERNATIVE

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



0 300 600 1200

SCALE IN METERS

0 1200 2400 4800

SCALE IN FEET



NORTH

Sources: NASBP Land Use: Helber Hastert & Fee Planners (March 1997 and December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Noise Contours: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-6
NOISE CONTOURS:
2020 SMALL AIRPORT ALTERNATIVE

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

The second criterion used to identify potentially significant noise impacts is an increase in noise of 1.5 DNL within the area bounded by the 60 DNL contour. No areas within the area bounded by the 60 DNL contour would experience an increase of 1.5 DNL. For this reason and the fact that the 60 DNL contour would not affect residential areas, no significant noise impacts would occur in the State-preferred alternative.

Large Airport Alternative. The entire lengths, 8,330 feet each, of parallel Runways 4L-22R and Runway 4R-22L are retained in the Large Airport alternative, along with the entire length of the 8,441-foot crosswind runway, Runway 11-29. These runway lengths satisfy the 8,000-foot runway requirement of the commercial airlines and the military for designation of an alternate landing site. In this alternative, U.S. Coast Guard and Hawaii National Guard would be accommodated, in addition to the general aviation fixed-wing and helicopter aircraft. Runway 4R-22L would be used for general aviation, U.S. Coast Guard, and Hawaii National Guard training patterns. Runway 4L-22R would be primarily used for itinerant operations by the smaller single and twin general aviation aircraft. The 8,441-foot crosswind runway would be used for itinerant U.S. Coast Guard, Hawaii National Guard, and twin-engine general aviation aircraft departures in trade wind conditions on Runway 11, and for landings on Runway 29 by these aircraft in Kona conditions (winds originating from a southerly direction).

Noise levels estimated for the Large Airport alternative are illustrated in Figure 4.1-5. These data show that the significant noise level of 60 DNL would not affect residential areas or other noise-sensitive areas. With the exception of two small areas near the southeast and southwest corners of NASBP, none of the noise levels equal or exceed 60 DNL outside of the existing NASBP property boundaries. Conversely, baseline noise levels, represented in Figure 3.1-2, show that the 60 DNL contour extends beyond the existing NASBP property boundaries in several areas not only to the southeast and southwest, but also to residential areas north of NASBP, commercial/light industrial areas west of NASBP, and undeveloped areas west of NASBP.

The second criterion used to identify potentially significant noise impacts is an increase in noise of 1.5 DNL within the area bounded by the 60 DNL contour. No areas within the area bounded by the 60 DNL contour would experience an increase of 1.5 DNL. For this reason and the fact that the 60 DNL contour would not affect residential areas, no significant noise impacts would occur in the Large Airport alternative.

Small Airport Alternative. Of the existing parallel runways, the inland-most 8,000 feet of Runway 4L-22R and a southwest portion (3,700 feet) of Runway 4R-22L are assumed in the Small Airport alternative. No crosswind runway is used in this alternative. The 8,000-foot Runway 4L-22R satisfies requirements of the commercial airlines and the military for designation of an alternate landing site. Runway 4R-22L would be used for general aviation training patterns. The longer Runway 4L-22R would be primarily used for training operations by the larger U.S. Coast Guard and Hawaii National Guard aircraft, and for itinerant operations by all fixed-wing aircraft.

In the Small Airport alternative, general aviation fixed-wing and helicopter aircraft would be accommodated; however, because this alternative excludes a crosswind runway, U.S. Coast Guard and Hawaii National Guard operations would be limited. In the case of the U.S. Coast Guard, operations would be limited because they would not be able to operate fully loaded aircraft for search and rescue missions under certain crosswind weather conditions.

Noise levels estimated for the Small Airport alternative are illustrated in Figure 4.1-6. These data show that the significant noise level of 60 DNL would not affect residential areas or other noise-sensitive areas. With the exception of two small areas near the southeast and southwest corners of NASBP, none of the noise levels equal or exceed 60 DNL outside of the existing NASBP property boundaries. Conversely, baseline noise levels, represented in Figure 3.1-2, show that the 60 DNL contour extends beyond the existing NASBP property boundaries in several areas not only to the southeast and southwest, but also to residential areas north of NASBP, commercial/light industrial areas west of NASBP, and undeveloped areas west of NASBP.

The second criterion used to identify potentially significant noise impacts is an increase in noise of 1.5 DNL within the area bounded by the 60 DNL contour. No areas within the area bounded by the 60 DNL contour would experience an increase of 1.5 DNL. For this reason and the fact that the 60 DNL contour would not affect residential areas, no significant noise impacts would occur in the Small Airport alternative.

No Airport Alternative. In this alternative, none of the existing airfield would be retained and the U.S. Coast Guard would have to relocate. The only aircraft operations under the No Airport alternative would be from helicopter operations associated with the Hawaii Army National Guard.

Noise levels were not estimated for the No Airport Alternative; however, this alternative does assume that helicopters used by the Hawaii Army National Guard would be present. These noise impacts would be characterized as single-event occurrences. No significant noise impacts are expected from these occurrences as the proposed helicopter use in the No Airport alternative would be much less than those assumed in any of the other reuse alternatives.

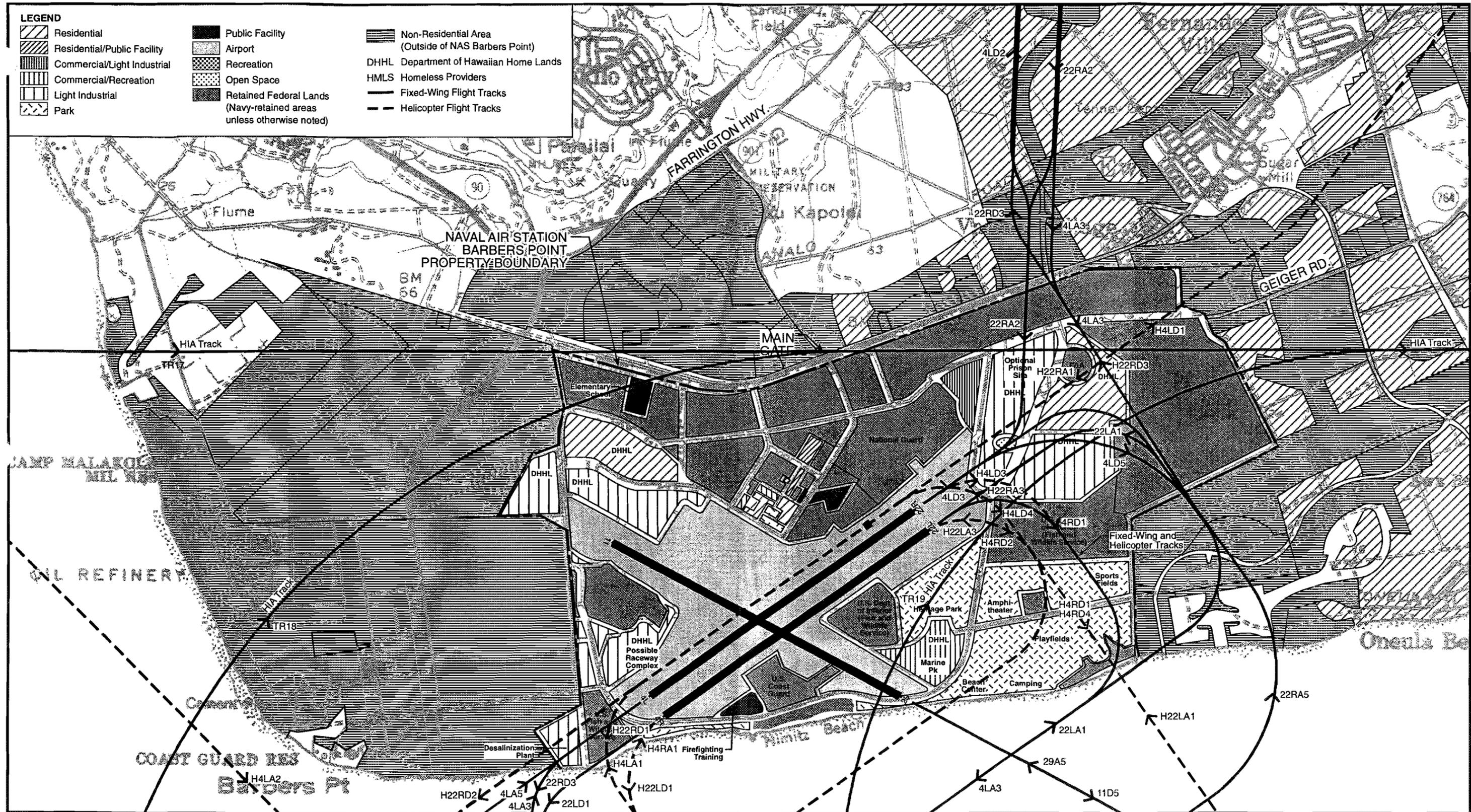
Other Noise-Generating Activities

Construction and other specific land use activities that are a source of noise, such as the motor sports raceway park, would not result in significant changes to baseline noise levels because they must comply with existing state regulation identified in Section 4.1.5.1 (HAR Chapter 11-46, Community Noise Control). Additionally, proposed development on state or county land or use of state or county funds would require an environmental assessment or impact statement, in accordance with HRS Chapter 343, to determine whether or not potential noise impacts could be significant. If these impacts are determined to be significant, mitigation measures will be identified.

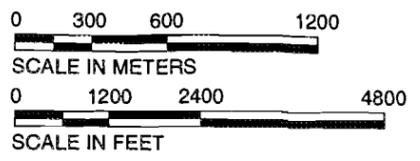
4.1.5.3 Cumulative Impacts

Because of the close proximity of Honolulu International Airport (HIA), aircraft operations from HIA have been considered in the noise evaluation. Flight tracks with HIA operations for the State-preferred alternative, Large Airport alternative, and Small Airport alternative are shown on Figures 4.1-7, 4.1-8, and 4.1-9, respectively.

Figures 4.1-10, 4.1-11, and 4.1-12 illustrate the extent of noise impacts during aircraft operations from HIA under the State-preferred, Large Airport, and Small Airport alternatives, respectively. When compared with the 60 DNL contour for the baseline condition (Figure 3.1-2), noise levels would decrease and the 60 DNL contour area of impact would be significantly smaller in all cases. All noise levels in residential areas would be lower than 60 DNL. While contours are provided for

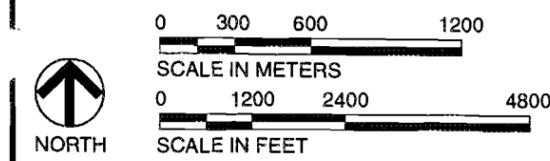
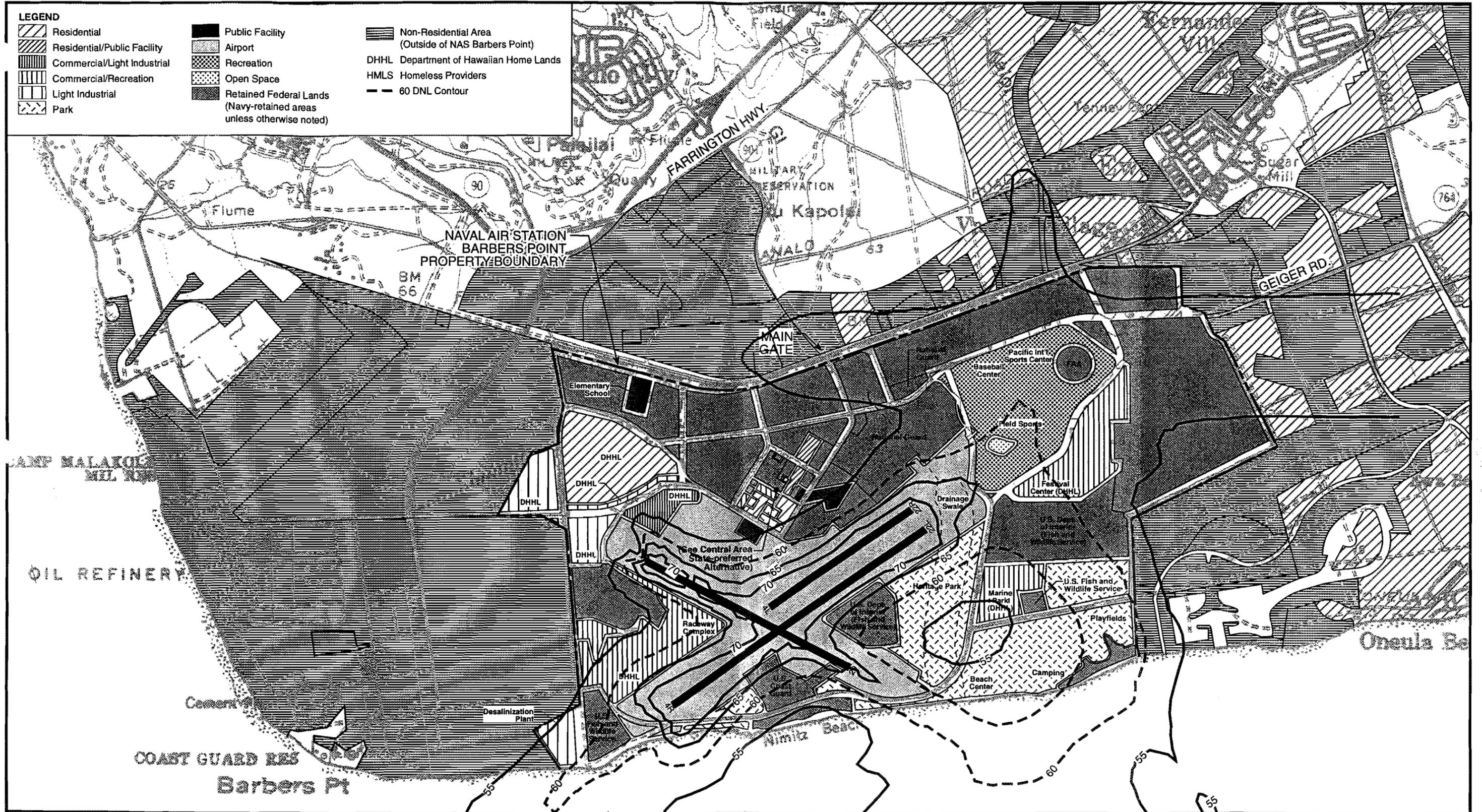


LEGEND					
	Residential		Public Facility		Non-Residential Area (Outside of NAS Barbers Point)
	Residential/Public Facility		Airport		DHHL Department of Hawaiian Home Lands
	Commercial/Light Industrial		Recreation		HMLS Homeless Providers
	Commercial/Recreation		Open Space		Fixed-Wing Flight Tracks
	Light Industrial		Retained Federal Lands (Navy-retained areas unless otherwise noted)		Helicopter Flight Tracks
	Park				



Sources: NASBP Land Use: Helber Hastert & Fee Planners (December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Flight Tracks: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-8
FLIGHT TRACKS:
2020 LARGE AIRPORT ALTERNATIVE WITH HIA
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

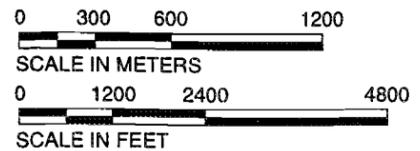
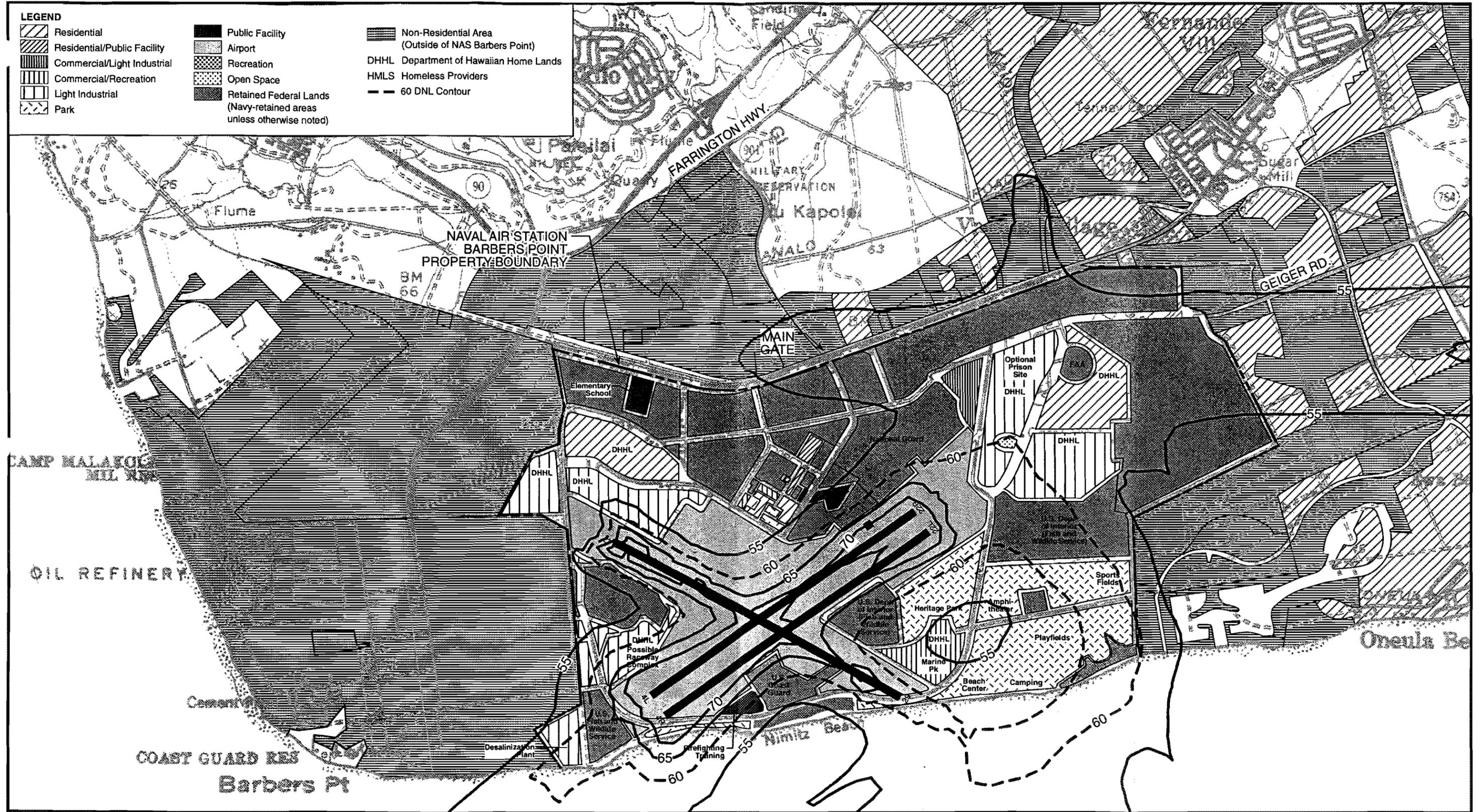


Sources: NASBP Land Use: Helber Hastert & Fee Planners (December 1997);
 Federal Retention Areas: PACNAVFACENGCOM (September 28, 1998);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan, October 1997;
 Noise Contours: Aries Consultants Ltd. (March 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-10
NOISE CONTOURS:
2020 STATE-PREFERRED ALTERNATIVE WITH HIA
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

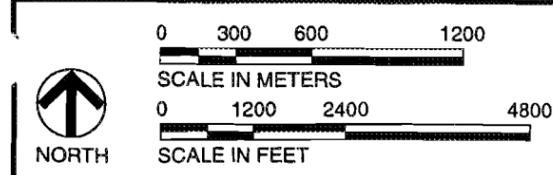
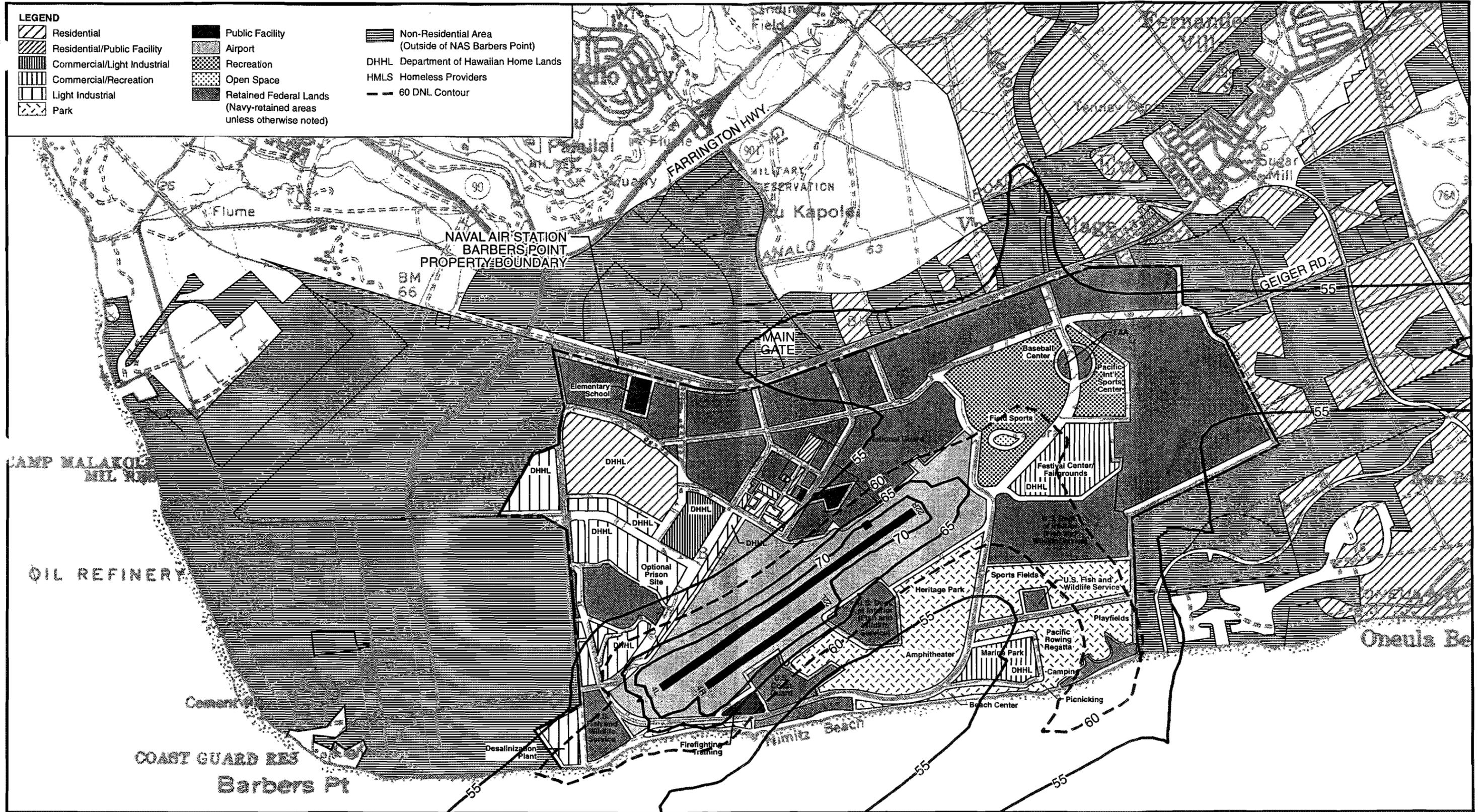
LEGEND

	Residential		Public Facility		Non-Residential Area (Outside of NAS Barbers Point)
	Residential/Public Facility		Airport		DHHL Department of Hawaiian Home Lands
	Commercial/Light Industrial		Recreation		HMLS Homeless Providers
	Commercial/Recreation		Open Space		60 DNL Contour
	Light Industrial		Retained Federal Lands (Navy-retained areas unless otherwise noted)		
	Park				



Sources: NASBP Land Use: Helber Hastert & Fee Planners (March 1997 and December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Noise Contours: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-11
NOISE CONTOURS:
2020 LARGE AIRPORT ALTERNATIVE WITH HIA
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



Sources: NASBP Land Use: Helber Hastert & Fee Planners (March 1997 and December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Noise Contours: Y. Ebisu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-12
NOISE CONTOURS:
2020 SMALL AIRPORT ALTERNATIVE WITH HIA

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

the No Airport alternative, noise levels will be lowest in this alternative because they will reflect only Hawaii Army National Guard helicopters and overflights from HIA.

No significant cumulative noise impacts would occur from the on-site airport operations and those from HIA for all reuse alternatives. No mitigation would be required.

4.1.6 Visual Resources

4.1.6.1 Significance Criteria

The proposed action would result in a significant impact to the area's visual resources if it: (1) substantially degrades the quality of an identified visual resource, including, but not limited to, unique topographic features, undisturbed native vegetation, surface waters and major drainage, and parks or recreational areas; or (2) substantially obstructs any scenic vista or view visible to the public.

4.1.6.2 Potential Impacts and Mitigation

No significant impacts would occur to identified visual resources due to the proposed action, and no mitigation measures would be required. Coastal parks and shoreline access are a significant component of all alternatives. The development of shoreline parks would open up coastal areas which have been inaccessible to the general public for years. Shoreline building setbacks would be maintained as required by the State and C&C of Honolulu. Along with the beachfront parks, a large undeveloped northeast parcel is proposed for sports fields and recreational use. For the State-preferred and airport alternatives, the existing airport runways would continue to allow uninterrupted views from inland areas to ocean and distant coastal landmarks. The development alternatives recommend landscape design features to improve the area's visual continuity.

Under the No Action alternative, public access to the majority of the base would be restricted, including limited access to shoreline areas. No change would result from the baseline condition.

4.1.6.3 Cumulative Impacts

No significant cumulative impacts on visual resources would occur in any of the alternatives.

4.1.7 Transportation

4.1.7.1 Significance Criteria

Air Transportation. HIA will continue to accommodate the aircraft providing goods, services, and passengers to Oahu and the proposed reuse areas. The modest population growth of 4 percent associated with the range of reuse alternatives would not significantly increase the number of flights at HIA. No significant effects on this activity would occur. For this reason, no significant impacts from changes in air transportation at Barbers Point would occur and no significance criteria were established.

Marine Transportation. No significance criteria were established for marine transportation impacts because no effects on this activity would occur.

Roads and Traffic. Average daily trip (ADT) counts provide a means to compare the number of vehicles trips that would be generated by the alternatives. ADT counts alone do not fully describe traffic impacts. To evaluate the effect of ADT on traffic, specific intersections are analyzed by estimating volume-to-capacity (V/C) ratios and vehicle delay times. V/C ratios and vehicle delay times are used to categorize the intersection (for signalized intersections) or lane (for unsignalized intersections) in one of five categories (A through F) on a Level of Service (LOS) scale. Tables 4.1-4a and 4.1-4b provide general descriptions of the LOS classifications for signalized and unsignalized intersections, respectively.

**Table 4.1-4a
LOS Classifications for Signalized Intersections**

Level of Service	Delay	Description
A	0.0 to 5.0 seconds	Describes operations with very low delay, i.e., less than 5 seconds per vehicle. This occurs when signal progression is extremely favorable. Most vehicles arrive during the green phase and are not required to stop at all. Corresponding V/C ratios usually range from 0.00 to 0.60.
B	5.1 to 15.0 seconds	Describes operations with delay in the range of 5 to 15 seconds per vehicle generally characterized by good signal progression and/or short cycle lengths. More vehicles are required to stop than for LOS 'A' causing higher levels of average delay. Corresponding V/C ratios usually range from 0.61 to 0.70.
C	15.1 to 25.0 seconds	Describes operations with delay in the range of 15 to 25 seconds per vehicle. Occasionally, vehicles may be required to wait more than one red signal phase. The number of vehicles stopping at this level is significant although many still pass through the intersection without stopping. Corresponding V/C ratios usually range from 0.71 to 0.80.
D	25.1 to 40.0 seconds	Describes operations with delay in the range of 25 to 40 seconds per vehicle. At LOS 'D', the influence of congestion becomes more noticeable. Many vehicles stop, and the proportion of vehicles not stopping declines. The number of vehicles failing to clear the signal during the first green phase is noticeable. Corresponding V/C ratios usually range from 0.81 to 0.90.
E	40.1 to 60.0 seconds	Describes operations with delay in the range of 40 to 60 seconds per vehicle. These high delay values generally indicate poor signal progression, long cycle lengths, and high V/C ratios. Vehicles frequently fail to clear the intersection during the first green phase. Corresponding V/C ratios usually range from 0.91 to 1.00.
F	60.1 seconds plus	Describes operations with delay in excess of 60 seconds per vehicle. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. Corresponding V/C ratios usually are over 1.00.

Source: National Transportation Research Board (1994) *Highway Capacity Manual, Special Report 209*, Chapter 10.

**Table 4.1-4b
Level of Service (LOS) Classifications For Unsignalized Intersections ^a**

LOS	Average Stopped Delay (seconds/vehicle)	General Characteristics
A	< 5.0	Little or no delays.
B	5.1 - 10.0	More vehicles are required to stop than for LOS A
C	10.1 - 20.0	Average traffic delays. The number of vehicles stopped at this level is significant although many still pass without stopping.
D	20.1 - 30.0	The number of vehicles failing to clear the signal during the green phase is noticeable.
E	30.1 - 45.0	Very long traffic delays.
F	> 45	Vehicle arrival rate exceeds the capacity of the intersection.

^a National Transportation Research Board (1994) *Highway Capacity Manual, Special Report 209*, Chapter 10.

For signalized intersections, degradation of traffic is considered significant when

- the intersection condition is degraded beyond LOS D (LOS E or F), or
- the V/C ratio increases by 0.02 and the resulting V/C ratio is 0.95 or greater (if the No Action V/C ratio is greater than 0.95).

For unsignalized intersections, degradation of traffic is considered significant when a lane condition is degraded to LOS F.

4.1.7.2 Potential Impacts and Mitigation

4.1.7.2.1 Air Transportation

The planned number of aircraft operations at Barbers Point (Kalaeloa Airport) is presented in Table 4.1-2. No significant impact from changes in air transportation at Barbers Point would occur because air transportation of goods, services, and passengers into the surplus areas has and would continue at HIA.

Other aircraft related impacts are addressed in various sections of this document. Impacts on air quality are in Section 4.1.4.2; impacts on noise are discussed in Section 4.1.5.2; impacts on public safety are presented in Section 4.4.1.2; and Section 4.4.3.2 discusses the effect of airport use on bird air strikes.

4.1.7.2.2 Marine Transportation

No significant impacts on marine transportation would occur because marine transportation of goods, services, and passengers would not be altered by the redevelopment plans.

4.1.7.2.3 Roads and Traffic

The potential effects on ADT and traffic resulting from each of the reuse alternatives are presented in the *Traffic Impact Study, Barbers Point Naval Air Station Redevelopment Master Plan* (Wilbur Smith, October 1997) and summarized herein. These findings indicate that no significant impacts on traffic would occur with the mitigation identified. The exception would be special events held several times per year. Such events would present severe traffic conditions and traffic management challenges.

A summary of the estimated ADT that would be generated by the various reuse scenarios is provided in Table 4.1-5. As shown in this table, the Large Airport alternative would generate the greatest number of vehicle trips and highest volume of peak-hour traffic.

Intersection Conditions

The National Transportation Research Board provides methods for evaluating the effectiveness and quality of service for roadways and streets. Various methods are relied upon to assess roadway intersection conditions. The LOS concept is the most widely used. Data used to estimate V/C ratios in this document were developed by combining land use information (Appendix B), regional traffic forecasts from the *2020 Oahu Regional Transportation Plan* (Kaku Associates, November 1995), and field counts obtained from the State DOT, C&C of Honolulu Department of Transportation Services (DTS), and Wilbur Smith Associates. Estimates were made of the number of vehicle trips that would be generated as a result of each alternative reuse plan. Vehicle trip generation rates were based on national rates compiled by the Institute of Transportation Engineers (ITE) (Institute of Transportation Engineers, 1991).

The following intersections were analyzed (see Figure 3.1-3):

- Fort Barrette Road/Franklin D. Roosevelt Avenue (unsignalized);
- Fort Barrette Road/Farrington Highway (signalized);
- Kapolei Parkway/North-South Road (signalized [proposed]); and
- Fort Weaver Road/Geiger Road/Iroquois Point Road (signalized).

Roadway linkages planned for each of the reuse alternatives are illustrated in Figures 4.1-13 through 4.1-16.

Table 4.1-6 summarizes the LOS estimated for each of the intersections and reuse alternatives. For purposes of this evaluation, mitigative measures have been identified when significant traffic degradation is expected:

- when the LOS is degraded beyond LOS D (LOS E or F), or
- when the V/C ratio increases by 0.02 and the resulting V/C ratio is 0.95 or greater (if the No Action V/C ratio is greater than 0.95) for signalized intersections.

For unsignalized intersections, mitigation is identified if a lane condition is degraded to LOS F.

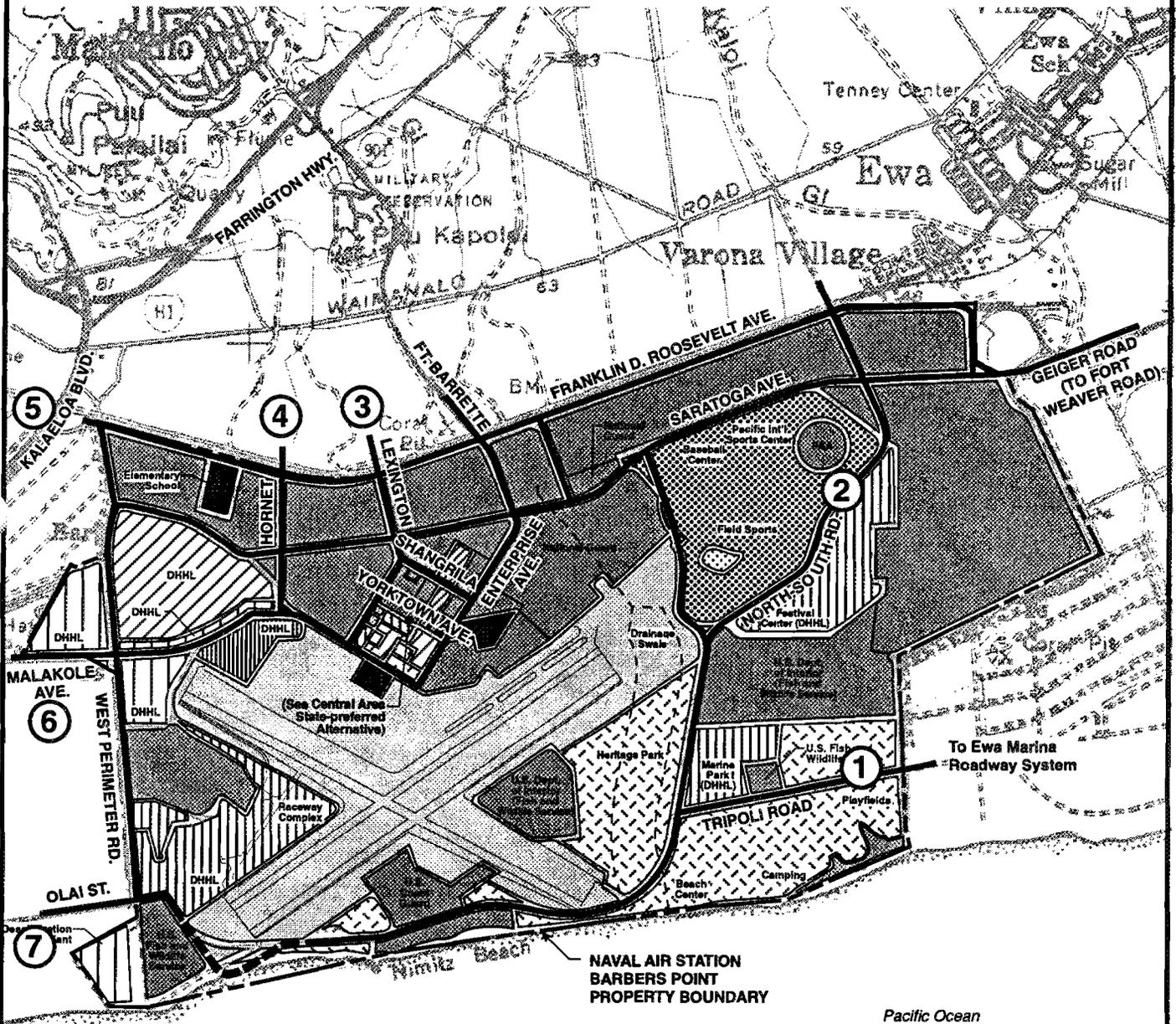
Impacts on traffic would be significant and mitigation would be recommended in all development alternatives at the Fort Weaver Road/Geiger Road intersection. At this intersection, the Large Airport

LEGEND

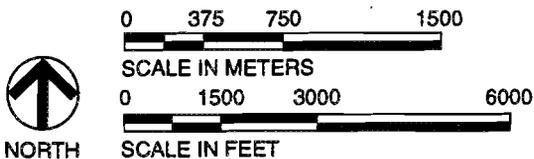
- ① Tripoli Road extension to future Ewa Marina roadway system
- ② Future North-South Road extension to Coral Sea Road
- ③ Lexington Avenue extension to City of Kapolei Street network
- ④ Hornet Avenue extension to City of Kapolei Street network
- ⑤ F.D. Roosevelt Avenue extension to Kalaeloa Boulevard
- ⑥ Malakole Street and Midway connector
- ⑦ Olai Street and West Perimeter Road connector

- Residential
- Residential/Public Facility
- Commercial/Light Industrial
- Commercial/Recreation
- Light Industrial
- Park
- Public Facility
- Airport

- Recreation
- Open Space
- Retained Federal Lands (Navy-retained areas unless otherwise noted)
- DHHL Department of Hawaiian Home Lands
- HMLS Homeless Providers
- Future Road



Source of base map: USGS Topographic Map of the Island of Oahu (1970).



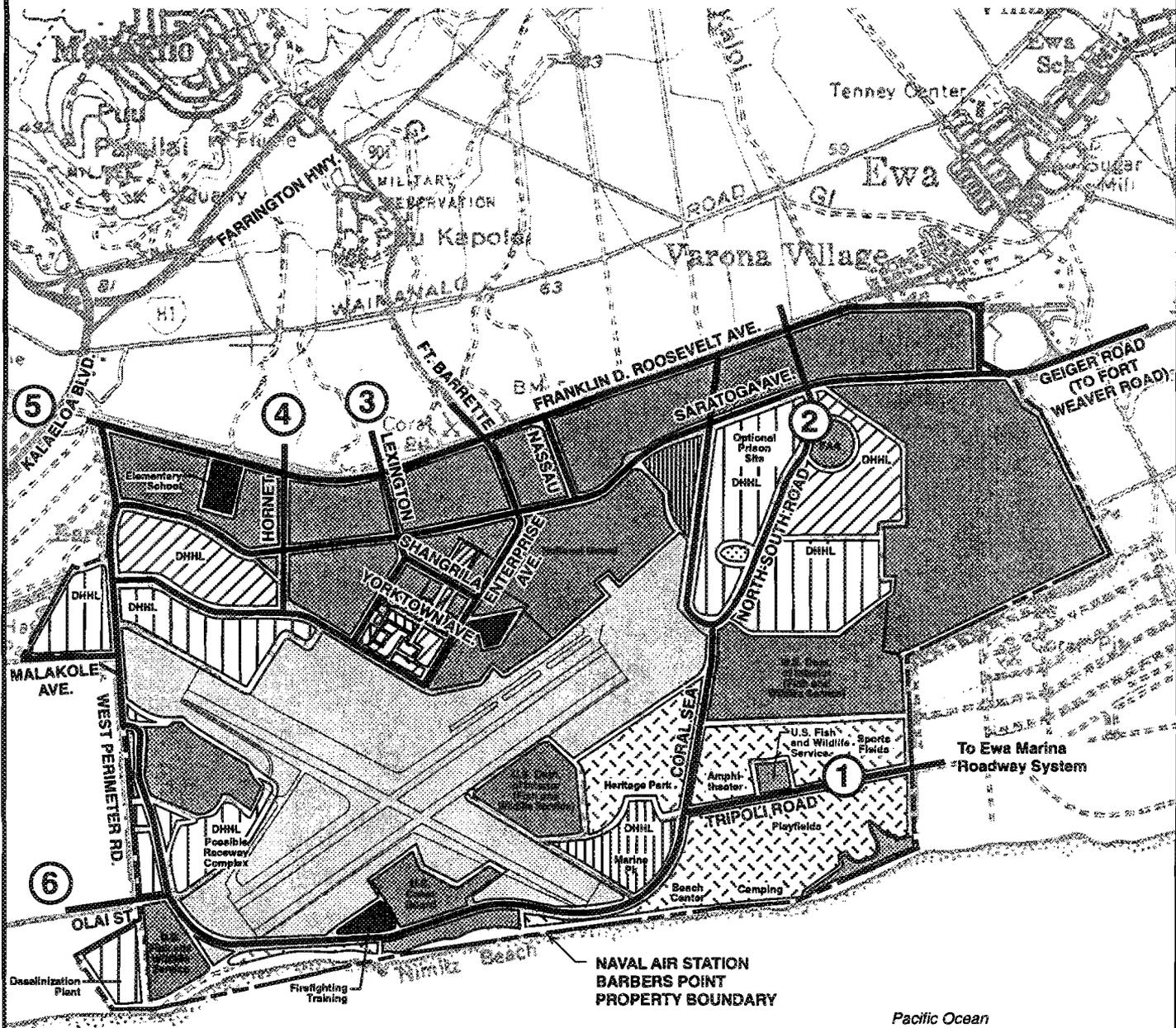
**Figure 4.1-13
PLANNED ROAD LINKAGES FOR
STATE-PREFERRED ALTERNATIVE**

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

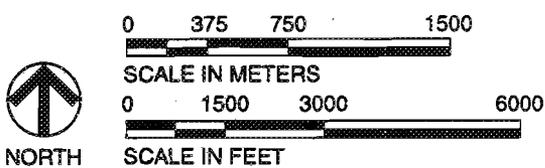
LEGEND

- ① Tripoli Road extension to future Ewa Marina roadway system
- ② Future North-South Road extension to Coral Sea Road
- ③ Lexington Avenue extension to City of Kapolei Street network
- ④ Hornet Avenue extension to City of Kapolei Street network
- ⑤ F.D. Roosevelt Avenue extension to Kalaeioa Boulevard
- ⑥ Olai Street and West Perimeter Road connector

	Residential		Recreation
	Residential/Public Facility		Open Space
	Commercial/Light Industrial		Retained Federal Lands (Navy-retained areas unless otherwise noted)
	Commercial/Recreation	DHHL	Department of Hawaiian Home Lands
	Light Industrial	HMLS	Homeless Providers
	Park		
	Public Facility		
	Airport		



Source of base map: USGS Topographic Map of the Island of Oahu (1970).



**Figure 4.1-14
PLANNED ROAD LINKAGES FOR
LARGE AIRPORT ALTERNATIVE**

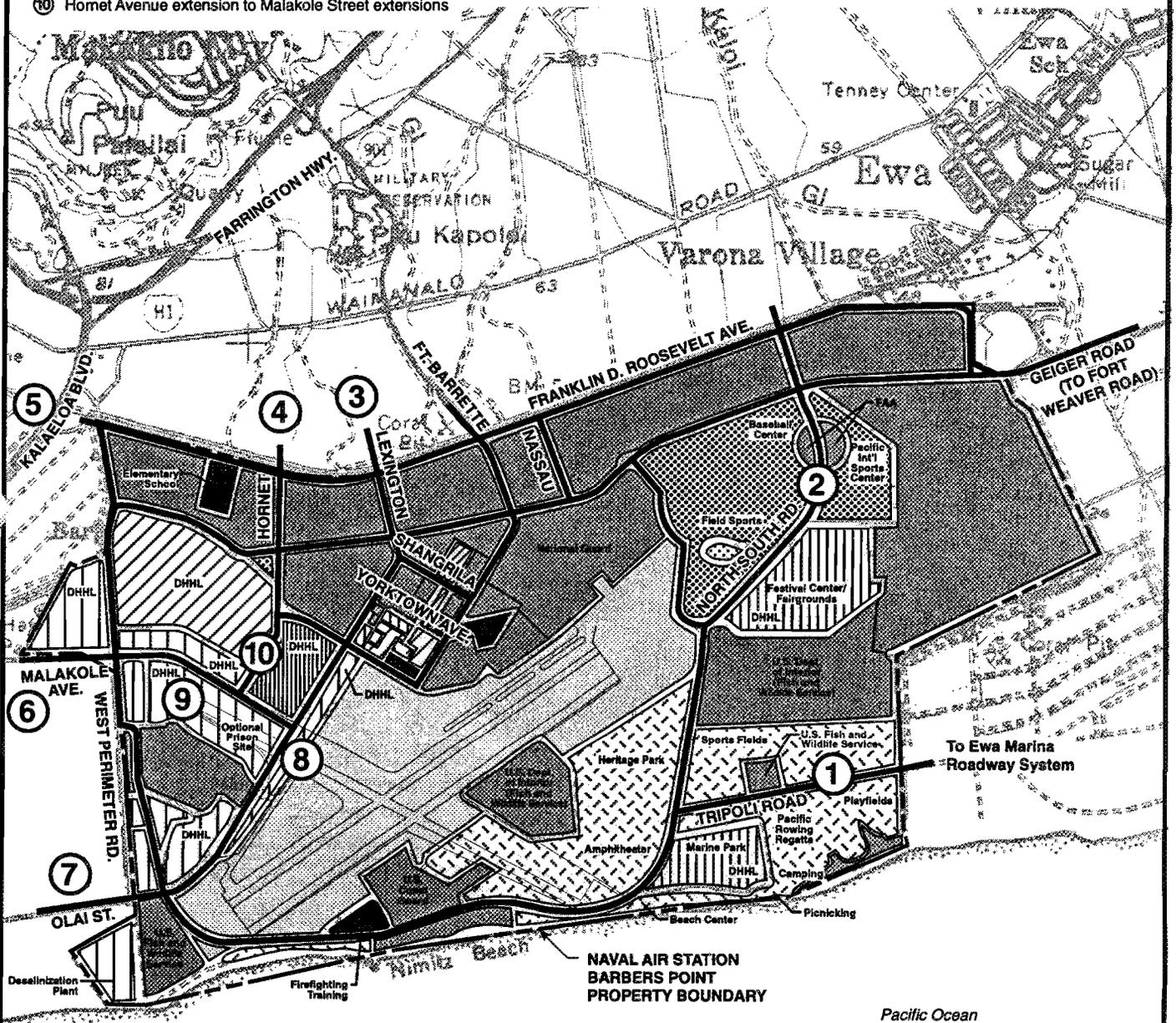
EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

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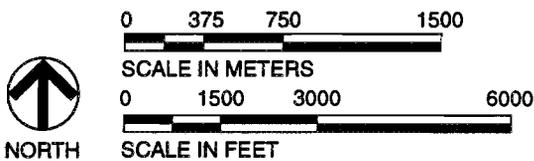
- ① Tripoli Road extension to future Ewa Marina roadway system
- ② Future North-South Road extension to Coral Sea Road
- ③ Lexington Avenue extension to City of Kapolei Street network
- ④ Hornet Avenue extension to City of Kapolei Street network
- ⑤ F.D. Roosevelt Avenue extension to Kalaeloa Boulevard
- ⑥ Malakole Street and Midway connector
- ⑦ Olai Street and West Perimeter Road connector
- ⑧ Lexington Avenue extension to Olai Street
- ⑨ Malakole Street extension to Lexington Avenue
- ⑩ Hornet Avenue extension to Malakole Street extensions

- Residential
- Residential/Public Facility
- Commercial/Light Industrial
- Commercial/Recreation
- Light Industrial
- Park
- Public Facility
- Airport

- Recreation
- Open Space
- Retained Federal Lands (Navy-retained areas unless otherwise noted)
- DHHL Department of Hawaiian Home Lands
- HMLS Homeless Providers



Source of base map: USGS Topographic Map of the Island of Oahu (1970).



**Figure 4.1-15
PLANNED ROAD LINKAGES FOR
SMALL AIRPORT ALTERNATIVE**

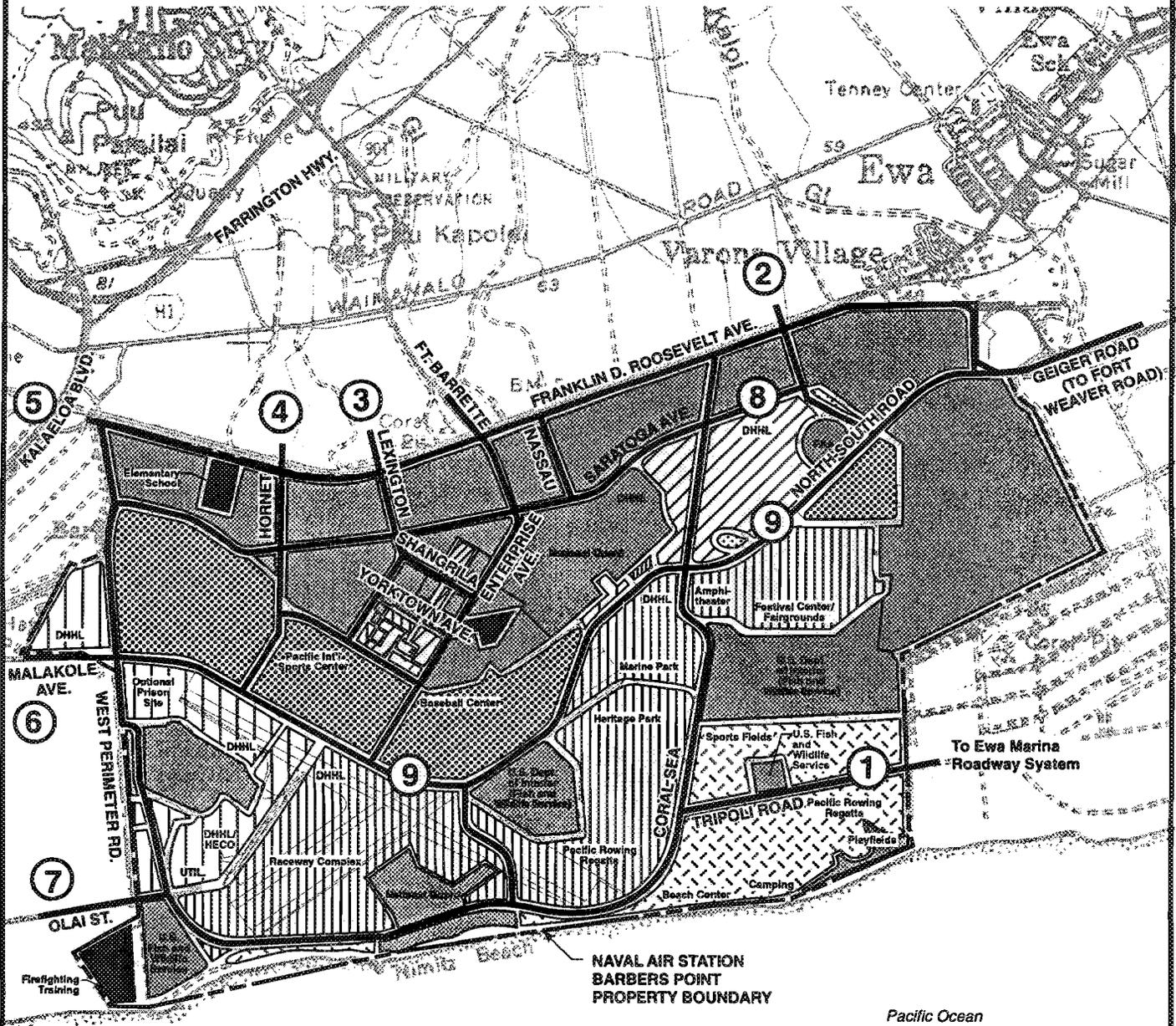
EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

LEGEND

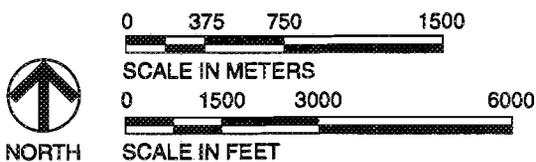
- ① Tripoli Road extension to future Ewa Marina roadway system
- ② Future North-South Road extension to Geiger Road extension
- ③ Lexington Avenue extension to City of Kapolei Street network
- ④ Hornet Avenue extension to major east-west route
- ⑤ F.D. Roosevelt Avenue extension to Kalaeloa Boulevard
- ⑥ Malakole Street and Midway connector
- ⑦ Olai Street and West Perimeter Road connector
- ⑧ Saratoga Avenue extension to North-South Road on east end
- ⑨ Geiger Road extension to Malakole Street

- Residential
- Residential/Public Facility
- Commercial/Recreation
- Light Industrial
- Park
- Public Facility
- Public Education

- Recreation
- Open Space
- Retained Federal Lands (Navy-retained areas unless otherwise noted)
- DHHL Department of Hawaiian Home Lands
- HMLS Homeless Providers



Source of base map: USGS Topographic Map of the Island of Oahu (1970).



**Figure 4.1-16
PLANNED ROAD LINKAGES FOR
NO AIRPORT ALTERNATIVE**

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

alternative would create the greatest degradation in traffic conditions. All other reuse alternatives would have similar traffic impacts, and all would be less than the Large Airport alternative. The No Action alternative would create the least impact on traffic. Significant impacts can be mitigated to nonsignificant levels by implementing the recommended roadway designs listed in Table 4.1-7.

The traffic analysis indicates that base reuse would not require mitigation at Fort Barrette Road. This conclusion is based on the following assumptions:

- Each of the reuse alternatives includes additional roadway connections between the roadways within NASBP and the planned future major roadways in the adjacent areas of the Ewa District. These include connections to the planned major North-South road facility as well as connections to Kalaeloa Boulevard, the planned City of Kapolei roadway network, and the planned Ewa Marina roadways.
- Most of the new development areas are located in the eastern and western areas of NASBP. Most of the traffic from these areas would likely use roadway connections other than Fort Barrett Road.
- There is little reuse planned in the Central Area located at the southern end of Barbers Point Access Road, and most of the planned reuse would not contribute to major increases in weekday peak hour traffic (relative to the No Action alternative).
- The new roadway connections to NASBP would likely attract use by a portion of the existing traffic that now uses Fort Barrette Road to travel to/from the Navy housing areas to the east and west of the Central Area.

The effect of the above assumptions is that traffic will increase approximately 2 to 7 percent above the No Action alternative on Fort Barrette Road. Such increases do not require mitigation.

Cumulative aircraft emissions from the proposed Kalaeloa Airport and HIA would not significantly affect air quality. While the number of aircraft operations will increase, the change from mostly large military multi-engine aircraft to mostly small general aviation, single-engine aircraft would decrease total aircraft emissions. Cumulative impacts on air quality would result from the additional vehicle trips associated with base reuse and other planned projects, but their effects would be mitigated with roadway improvements recommended in Section 4.1.7.2 and recommendations of the Oahu Metropolitan Planning Organization and others.

4.1.5 Noise

Noise impacts are dependent upon (1) the sound pressure being generated, measured in decibels (dB) and usually based on an A-weighted scale (dBA), which simulates the range of sound that is audible by the human ear; (2) the distance to the affected individual; (3) the medium present between the source and the affected individual; and (4) the length and time-of-day of exposure. The equivalent sound level (Leq) is the energy produced by these sound pressures and averaged over a defined period of time.

The day-night average sound level (DNL) is commonly used for measuring environmental noise in general and for relating the acceptability of the noise environment for various land uses. The DNL represents the 24-hour average sound level for an average day, with nighttime noise levels (10:00 p.m. to 7:00 a.m.) increased by 10 dB prior to computing the 24-hour average.

The primary source of noise in the NASBP area is and would be from aircraft. To evaluate the potential noise levels associated with the various reuse alternatives, the FAA's Integrated Noise Model (INM), Version 4.11, has been used. Version 4.11 was the current INM in 1994, when the first noise contours were developed for initial evaluations. For this reason, the study was completed with Version 4.11 (Aries Consultants Ltd., June 1996). Model-generated sound levels, in DNL, have been compared to appropriate noise criteria for each land use type to determine if the proposed aircraft operations for each of the reuse plans could cause significant noise impacts. Noise studies were conducted by DOT as part of their overall evaluation of the potential use of NASBP as a general aviation reliever airport.

Other significant sources of noise would include heavy equipment use associated with construction work during development, vehicles, and the proposed raceway park.

4.1.5.1 Significance Criteria

Current noise standards and criteria are based on DNLs and proposed land use. These criteria have been developed by various agencies to meet specific objectives. Hence, there is no one set of criteria that applies to all noise evaluations. For example, for the purposes of evaluating funding assistance from federal agencies (e.g., FAA, HUD), an exterior noise level of 65 DNL or lower is considered acceptable.

The most sensitive land use and associated population type is residential. Current federal noise standards and acceptability criteria for residential land uses are summarized by the Federal Interagency Committee on Urban Noise in their *Guidelines for Considering Noise in Land Use Planning and Control*, 1992. Sound levels no greater than 55 DNL represent a minimal exposure level that is considered acceptable to all regulatory agencies.

**Table 4.1-5
Summary of Vehicle Trips Generated For Each Reuse Alternative**

Alternative	Average Daily Trips* [Number of Vehicle Trip Ends* on a Typical Weekday]	Directional Split in Peak Hour Traffic (%/%)	Ratio of Peak-Hour Traffic to Existing Condition	Primary Contributor of Traffic
Baseline [1995] ^c	27,300 [28,000]	72/28 (peak direction is inbound to the site in the morning) 61/39 (peak direction is outbound from the site in the afternoon)	Not Applicable (peak-hour a.m. count is 1,741 vehicles; peak-hour p.m. count is 1,887 vehicles)	Workers at NASBP
No Action	12,251 [12,565]	72/28 (peak direction is outbound from the site in the morning) 61/39 (peak direction is inbound to the site in the afternoon)	0.8 to 1.0	Residential population in Navy-retained areas
State-preferred Alternative	49,107 [50,366]	60/40 (peak direction is inbound to the site in the morning and outbound in the afternoon)	3.5 to 4	Light industrial and residential uses in the northwest area of the airfield
Large Airport Alternative	59,489 [61,014]	63/37 (peak direction is inbound to the site in the morning and outbound in the afternoon)	4.2 to 4.8	Reuse areas (primarily light industrial) in the east
Small Airport Alternative	53,140 [54,503]	60/40 (peak direction is inbound to the site in the morning) 56/44 (peak direction is outbound from the site in the afternoon)	3.8 to 4.3	Reuse areas (primarily light industrial) in the west
No Airport Alternative	54,963 [56,372]	59/41 (peak direction is inbound to the site in the morning) 52/48 (peak direction is outbound from the site in the afternoon)	3.9 to 4.5	Reuse areas in the east

^a Average daily trips (ADT) is approximately the total number of trips on a typical weekday. Because 5 percent of the trip ends are assumed to occur within NASBP and 95 percent are assumed to occur outside of NASBP, 97.5 percent of the vehicle trip ends approximate ADT.

^b Vehicle trip ends includes origins and destinations for trips to/from the base and trips made entirely within the base. These figures include the estimated 12,075 trip ends attributed to the retained areas. Vehicle trip ends for No Action differ from those for retained areas because of the effects of the Barbers Point Elementary School.

^c 1995 data have been used because 1993 data were not available.

**Table 4.1-6
Summary of Traffic Conditions at Selected Intersections**

Time Period/ Intersection	Baseline (1995) ⁽³⁾	Year 2020 Scenario (Identified in LOS or V/C ratio) ^{(1) (2)}				
		No Action	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative
Morning Peak Hour						
• Ft. Barrette Rd. - F.D. Roosevelt Ave. (unsignalized intersection)	F	D	D	F*	E	D
• Ft. Barrette Rd. - Farrington Hwy.	0.604	0.855	0.862	0.858	0.861	0.856
• Kapolei Pkwy - North-South Rd.	N	0.861	0.908	1.026*	0.911	0.941
• Ft. Weaver Rd. - Geiger Rd.	0.866	0.940	0.877	0.945	0.885	0.916
Afternoon Peak Hour						
• Ft. Barrette Rd - F.D. Roosevelt Ave. (unsignalized intersection)	F	D	D	F*	D	D
• Ft. Barrette Rd. - Farrington Hwy.	0.787	0.816	0.853	0.862	0.883	0.877
• Kapolei Pkwy - North-South Rd.	N	0.968	0.978	1.046*	0.985	0.984
• Ft. Weaver Rd. - Geiger Rd.	0.775	0.984	1.128*	1.227*	1.121*	1.109*
<p>(1) For unsignalized intersections, Level-of-Service A (short wait, no delay) to Level-of-Service F (very long delay) provided. For signalized intersections, the proportion of estimated intersection capacity used by peak hour traffic is provided.</p> <p>(2) Conditions with planned roadway improvements.</p> <p>(3) 1995 data have been used because 1993 data were not available.</p> <p>* Mitigation is proposed.</p> <p>N No existing intersection.</p>						
Source: Wilbur Smith Associates (October 1997)						

**Table 4.1-7
Possible Traffic Mitigation Measures**

Alternative	Intersection	LOS without Mitigation (peak-hour period)	Mitigation	LOS with Mitigation
State-preferred Alternative	Fort Weaver Road/Geiger Road/Iroquois Point	F (p.m.)	Add a second right-turn lane on the eastbound approach (Geiger Road). On the westbound approach (Iroquois Point Road), allow through traffic to use one of the two right-turn-only lanes, which would provide one exclusive through lane and one shared lane for the westbound through traffic.	D
Large Airport Alternative	Fort Barrette Road and Franklin D. Roosevelt Avenue	F (a.m. and p.m.)	Add separate left-turn lane from eastbound Roosevelt Avenue.	E
	Kapolei Parkway and North-South Road	F (a.m. and p.m.)	1) Widen North-South Road to provide three through lanes in each direction through the intersection.	D (a.m.) E (V/C=0.996) (p.m.)
			2) Add a second (double) left-turn lane to the northbound approach. (This mitigation serves to improve conditions to those with the No Action Alternative.)	D (a.m.) E (V/C=0.947) (p.m.)
	Fort Weaver Road/Geiger Road/Iroquois Point Road	F (p.m.)	1) On the eastbound approach (Geiger Road), add a second right-turn lane.	D (V/C=1.023)

Table 4.1-7 (continued):

Alternative	Intersection	LOS without Mitigation (peak-hour period)	Mitigation	LOS with Mitigation
Large Airport Alternative (continued)	Fort Weaver Road/Geiger Road/Iroquois Point Road (continued)	F (p.m.) (continued)	2) On the westbound approach (Iroquois Point Road), allow through traffic to use one of the two right-turn-only lanes, which would provide one exclusive through lane and one shared lane for the westbound through traffic.	D (V/C = 0.821)
Small Airport Alternative	Fort Weaver Road/Geiger Road/Iroquois Point Road	F (p.m.)	Add a second right-turn lane on the eastbound approach (Geiger Road). On the westbound approach (Iroquois Point Road), allow through traffic to use one of the two right-turn-only lanes, which would provide one exclusive through lane and one shared lane for the westbound through traffic.	D
No Airport Alternative	Fort Weaver Road/Geiger Road/Iroquois Point Road	F (p.m.)	Add a second right-turn lane on the eastbound approach (Geiger Road). On the westbound approach (Iroquois Point Road), allow through traffic to use one of the two right-turn-only lanes, which would provide one exclusive through lane and one shared lane for the westbound through traffic.	D

Coral Sea Road

The alternative reuse plans in the *Naval Air Station Barbers Point Community Redevelopment Plan* include the connection of Coral Sea Road to the West Perimeter Road to provide a continuous route through the site between the shoreline and the airfield. This route would provide access to the areas southeast and southwest of the airfield and permit through traffic to cross the site south of the airfield.

Since publication of the redevelopment plan in March 1997, the DOT Airports Division submitted an ALP and request for modification/waivers from FAA design criteria. In September 1997, the FAA responded to DOT's request and objected to the proposed public use of a specific segment of Coral Sea Road if the full 8,000-foot runway (Runway 4R-22L) is to be included as part of the airfield because it would violate FAA design criteria and would be a major security concern. With the continued closure of this segment of Coral Sea Road, lengths of travel would increase, but the alternative roadways used would have sufficient capacity to accommodate the additional peak hour flows (215 [a.m.] and 275 [p.m.]) anticipated on the affected segment of Coral Sea Road.

Special Attractions

Special events at the raceway park and festival center may attract up to 65,000 and 50,000 people, respectively, and cause severe traffic congestion. Based on the traffic evaluation conducted for this EIS, anywhere from 2 to 3.5 hours would be needed for the anticipated volumes of vehicles to enter or exit the area. Special traffic management plans, such as a temporary one-way designation of a two-way roadway could decrease the entry or exit time to about 2 hours or less. In addition, parking plans and shuttle buses would be required to accommodate all vehicles and persons at these events. Hence, even with mitigation, traffic impacts associated with special attractions would be significant. Summaries of the traffic and parking requirements associated with the raceway park and festival center are presented in Tables 4.1-8 and 4.1-9, respectively.

Sufficient surface areas would be available to accommodate the parking requirements for major events if parking plans are developed for each event. For raceway park events (estimated to occur several times a year in the State-preferred, Large Airport, and No Airport alternatives), off-site parking would be required for approximately 17,000 to 20,500 vehicles. Parking requirements for the State-preferred and Large Airport alternatives are at the lower end of this range; the No Airport alternative is at the high end of this range. Approximately 170 to 205 acres would be needed to accommodate these vehicles. Impacts from the Large Airport alternative are anticipated to be similar to those in the State-preferred alternative. For major events (attracting approximately 50,000 people) held at the festival center (estimated to occur several times a year, but only planned in the State-preferred Alternative), off-site parking would be required for approximately 13,200 vehicles, which represents approximately 132 acres of surface area. Possible parking areas, estimated capacities, and access routes used to estimate the effect on travel times are identified in Table 4.1-10. Should any one of these proposed developments anticipate runway closures to accommodate parking, the potential impacts on the U.S. Coast Guard must be considered and addressed with the LRA before development can occur. The environmental review process required by HRS Chapter 343 will require this coordination to occur.

**Table 4.1-8
Traffic Delays and Parking Requirements - Raceway Park**

Alternative	Number of Spectators	Time for Vehicles to Enter/Exit	Time for Vehicles to Enter/Exit with Mitigation	Parking Requirements
State-preferred Alternative	55,000 (maximum)	2 hours or more. (Special traffic operations would be required with 12,000 or more spectators.)	2 hours or less.	1) 18,300 parking spaces are required (1,200 spaces are planned at raceway park). 2) About 8,000 or more spaces could be provided within walking distance. Approximately 10,300 spaces would have to be identified for use in other areas of the NASBP site and adjacent areas. Shuttle buses would be needed.
Large Airport Alternative	Impacts are similar to those in State-preferred alternative.	Impacts are similar to those in State-preferred alternative.	Impacts are similar to those in State-preferred alternative.	Impacts are similar to those in State-preferred alternative.
Small Airport Alternative	-	-	-	-
No Airport Alternative	65,000 (maximum)	3 to 4 hours. (Special traffic operations would be required with 30,000 or more spectators)	2 hours or less.	1) 21,700 parking spaces are required (1,200 are planned at raceway park). 2) About 10,000 or more spaces could be provided within walking distance. Approximately 11,700 spaces would need to be identified for use on other areas of the NASBP site and adjacent areas. Shuttle buses would be needed.

**Table 4.1-9
Traffic Delays and Parking Requirements - Festival Center**

Alternative	Number of Spectators	Time for Vehicles to Enter/Exit	Time for Vehicles to Enter/Exit w/Mitigation	Parking Requirements
State-preferred Alternative	50,000 (maximum)	3.5 hours. (Special traffic operations would be required with 25,000 or more attendees.)	2.25 hours or more if North-South Road and Geiger Road extensions constructed as four-lane roadways; with additional special traffic operations, 1.75 hours.	1) 16,700 parking spaces are required (3,500 spaces are planned for the festival center). 2) Most of the parking could be provided at the festival center and other sites in the eastern part of the NASBP. Shuttle buses would be needed for remote locations.
Large Airport Alternative	-	-	-	-
Small Airport Alternative	8,000	1.5 to 2 hours (Special traffic operations would be required with 5,000 or more attendees.)	1 to 1.25 hours if North-South Road is operated as a one-way route. If North-South Road is widened to four lanes to the junction with Coral Sea Road, 0.75 to 1 hour period expected.	3,200 parking spaces are required (3,500 spaces are planned for the festival center). No mitigation required.
No Airport Alternative	8,000 (maximum)	1 hour or less with planned roadways.	Not applicable.	3,200 parking spaces are required (3,500 spaces are planned for the festival center). No mitigation required.

**Table 4.1-10
Possible Parking Areas for Major Events at Special Attractions**

Location	Potential Number of Parking Spaces	Access To Parking
State-preferred Alternative		
West End of Crosswind Runway	2,500 to 5,000	West Perimeter Road Malakole-Midway Connector
East End of Crosswind Runway	2,000 to 3,000	Coral Sea Road
DHHL Lands at West End of Crosswind Runway	2,000 or more	West Perimeter Road Malakole-Midway Connector
Festival Center	3,500	North-South Road
International Sports Center	2,500	North-South Road
Baseball Center	5,000	Geiger Road
Vacant Lands or Parking Areas Along Kalaeloa Corridor West of NASBP	Unknown	Kalaeloa Boulevard
No Airport Alternative		
Field Sports Complex	5,000	Geiger Road-Malakole Street Connector Hornet Avenue
East Area Parks	Up to 6,600	Coral Sea Road Tripoli Road Geiger Road-Malakole Street Connector
National Guard Apron	Unknown (Potential for 2,000 to 5,000)	Coral Sea Road
Festival Center	3,500	Geiger Road-Malakole Street Connector
International Sports Center	2,500	Geiger Road-Malakole Street Connector Enterprise Avenue Lexington and Hornet Avenues
Baseball Center	5,000	Geiger Road-Malakole Street Connector
Vacant Lands or Parking Areas Along Kalaeloa Corridor West of NASBP	Unknown	Kalaeloa Boulevard

With special traffic control and parking plans, major events could be accommodated, but significant impacts on traffic cannot be eliminated. These unmitigatable impacts would be similar to those experienced at Aloha Stadium events and the air show at NASBP.

4.1.7.3 Cumulative Impacts

Marine Transportation. No cumulative effects on this activity would occur.

Roads and Traffic. Cumulative impacts would occur as a result of the reuse of NASBP and the continuing development of the Ewa Plain. While the traffic analysis described herein has taken this into account, future coordination between the parties developing the Ewa Highway Transportation Master Plan and the LRA will be needed to address regional road system issues. Specific intersections could be designed to accommodate the anticipated traffic from other projects.

However, regional roadway improvements and additions would be needed to reduce vehicular delays in Ewa and between Ewa and downtown Honolulu. The Ewa Development Plan acknowledges that the return of NASBP to civilian use would open additional lands for use and increase transportation needs beyond the levels planned for in the *2020 Oahu Regional Transportation Plan*. Additional roadways to enhance movement have been identified in this transportation plan at a conceptual level and will require further study. The planned roadway linkages illustrated in Figures 4.1-13 through 4.1-16 reflect some of the roadways identified at this conceptual level.

Air Transportation. The continued use of the airport at Barbers Point would provide beneficial cumulative impacts as it could be used to serve the needs of the region and the State. Beneficial effects differ for each alternative. The number of aircraft operations are presented in Table 4.1-2 and are the same for all airport-containing alternatives.

The airport in the State-preferred alternative would:

- Solve the problem of an unsatisfactory mix of small, light general aviation and large, heavy air carrier aircraft at HIA. The airport would serve about 60 percent of the small single-engine and light twin-engine propeller aircraft forecast to be based at HIA by the year 2020, and serve about 50 percent of the general aviation aircraft projected to be based at Dillingham Airfield. In total, approximately 105,900 annual general aviation aircraft operations from these two airports could be served by the airport at Barbers Point by the year 2020.
- Accommodate the approximately 62,700 annual general aviation training operations that would be displaced by the closing of Ford Island Auxiliary Landing Field (ALF) in Pearl Harbor.
- Accommodate the estimated 13,100 annual operations of U.S. Coast Guard (C-130 aircraft and helicopters) and Hawaii Army National Guard (C-130 and C-26 aircraft and helicopters).
- Assist in disaster relief and civil defense response in times of emergencies and natural disasters. Provide an 8,000-foot runway (Runway 4R-22L) to accommodate commercial airline requirements for designation of an alternate landing site (under emergency situations only).
- Provide a 4,500-foot runway (runway 4L-22R) for general aviation operations.
- Provide a 6,000-foot crosswind runway (Runway 11-29) for take-offs over the ocean on Runway 11 and landings over the ocean on Runway 29. (Limiting the existing 8,411-foot

runway to 6,000 feet would restrict U.S. Coast Guard operations because fully loaded C-130s would not be able to take off.)

The airport in the Large Airport alternative would provide the same benefits listed under the State-preferred alternative and would also provide the U.S. Coast Guard with the added capability of performing take offs with fully loaded C-130s during non-trade wind conditions.

The airport under the Small Airport alternative would provide similar benefits listed in the State-preferred alternative, but would not include a crosswind runway and would limit operations.

The No Airport alternative would not include the use of existing airport runways at Barbers Point. Other than the forced relocation of the U.S. Coast Guard (identified in Section 4.5.2.4), no significant cumulative impacts would occur for airport closure relative to baseline conditions. Should reuse exclude an airport, the State would need to continue their search for general aviation relief for HIA, and the U.S. Coast Guard would need to be relocated.

4.2 BIOLOGICAL RESOURCES

The biological resources at NASBP and in offshore waters are discussed below under terrestrial flora, terrestrial fauna, marine biota, and sensitive wetland habitat.

4.2.1 Significance Criteria

The following criteria were used to assess the significance of potential impacts from the proposed action on flora, fauna, and habitat. An “endangered species” is one that is in danger of extinction throughout all or significant portions of its range (Endangered Species Act [ESA], 16 U.S.C. §1531). A “threatened species” is one that is likely to become endangered within the foreseeable future throughout all or significant portions of its range.

Flora and Fauna. Any direct or indirect action resulting in the take of listed (threatened or endangered) species or candidate species, and any action resulting in the loss of habitat of listed or candidate species is considered a significant impact under the ESA. For nonfederal activities, any take of migratory birds is considered significant under the Migratory Bird Treaty Act. The term “take” includes harass, harm, pursue, hunt, kill, capture, and/or collect.

Habitat. Impacts are considered significant if they adversely affect habitat that supports listed endangered or threatened species, or plant species that are considered rare within a region.

4.2.2 Potential Impacts and Mitigation

No significant impacts on terrestrial flora, terrestrial fauna, marine biota, or sensitive habitats would result from the proposed action. Letters documenting Navy’s informal consultation with USFWS and NMFS and their concurrence that Navy’s proposed conveyance of land is not likely to adversely affect the subject species (including habitats) are provided in Appendix A-8. Prior to conveyance of land that may contain federally listed threatened or endangered species from U.S. DOI to the State of Hawaii and the C&C of Honolulu, consultation by the appropriate bureau within the U.S. DOI in accordance with federal endangered species laws and regulations (Section 7 of the ESA of 1973) will be required. No alteration to water bodies is anticipated as part of this

action; therefore, consultation with the USFWS in compliance with Section 2 of the Fish and Wildlife Coordination Act, U.S.C. §662, is not required.

4.2.2.1 Terrestrial Flora

The area containing the largest population of the endangered plant 'akoko (*Chamaesyce skottsbergii* var. *skottsbergii*) and the only population of *Achyranthes splendens* var. *rotundata* on the base will be retained as federal lands. Under the State-preferred alternative, the two smaller populations of 'akoko on the western side of the base are on lands proposed for light industrial development and residential use. The two newly identified plants on the east side of the base, north of the Coral Sea Road Coral Pit and south of the revetments, are on lands designated for recreation and commercial/recreational development (U.S. DOI, USFWS, October 22, 1997) (see Figure 3.2-2). Should a drainage basin be developed as depicted in the State-preferred alternative, it must be done in such a manner to protect the endangered plants.

Letters documenting Navy's informal consultation with USFWS and their concurrence that Navy's proposed conveyance of land is not likely to adversely affect the 'akoko are provided in Appendix A-8. Prior to conveyance of land that may contain federally listed threatened or endangered species from the U.S. DOI to the State of Hawaii and the C&C of Honolulu, consultation by the appropriate bureau within the U.S. DOI in accordance with federal endangered species laws and regulations (Section 7 of the ESA of 1973) will be required. This fact, coupled with the inclusion of conveying agencies' restrictive covenants (identified during Navy's Section 7 informal consultation with USFWS [see Appendix A-8]), will provide 'akoko plants a degree of protection equal to or greater than that which is currently provided. Hence, no significant impact on endangered 'akoko are expected.

The Large Airport alternative has similar designated uses (i.e., light industrial and residential) as the State-preferred alternative in the areas on the western side of the base containing 'akoko. The areas on the eastern side of the base containing the newly identified plants are designated for light industrial uses. Light industrial and residential uses would not have as much flexibility as recreational uses for including open spaces and buffer zones into development. Therefore, the Large Airport alternative could potentially have significant impacts on the 'akoko populations.

The Small Airport alternative also has similar designated uses as the State-preferred alternative in areas that contain 'akoko populations on the western and eastern portions of the base. Therefore, the impacts of this alternative would be similar to those anticipated under the State-preferred alternative, and significant impacts can be avoided by establishing buffer zones around 'akoko populations.

The No Airport alternative has recreational uses identified on the western side of the base where 'akoko populations were identified, and has residential and commercial/recreational uses on the eastern side of the base where newly identified 'akoko plants are located. The impacts of this alternative would be similar to those of the State-preferred alternative, and no significant impacts would be expected if appropriate mitigation measures are applied.

4.2.2.2 Terrestrial Fauna

No significant impacts on terrestrial fauna would result from the proposed action. The fauna at the project site are mainly introduced or migratory indigenous species. The endangered Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*) occurs primarily in Ordy Pond and the two coastal salt flats, all of which are on retained federal lands.

4.2.2.3 Marine Biota

The coastal area that supports the threatened green sea turtle and coral reefs may experience short-term nonsignificant effects from surface water runoff from the base. Short-term impacts would be due to construction. Possible mitigation could include preserving terrestrial vegetation where possible, and developing storm water runoff controls and treatment measures to avoid or reduce impacts (see Section 4.7.4).

Surface water runoff due to the proposed action (as discussed in more detail in Section 4.7.4.2) would increase an estimated 31 percent under the State-preferred alternative, 68 percent under the Large Airport alternative, 35 percent under the Small Airport alternative, and 8 percent under the No Airport alternative. The No Action alternative would not increase surface water runoff.

Although increases in surface water volume are considered significant for all alternatives except No Action, the water quality impacts from increased surface water volume are not considered significant. As discussed in Section 4.1.3, land uses along the coast would remain unchanged and water quality along the beach would continue to be required to meet recreational standards. Therefore, no significant impacts on the marine environment and green sea turtle are anticipated under any of the reuse alternatives. No impacts on the marine environment and green sea turtle are anticipated under the No Action alternative.

Letters documenting Navy's informal consultation with the NMFS (in accordance with Section 7 of the ESA) and their concurrence that Navy's proposed conveyance of land is not likely to adversely affect listed species or critical habitat under NMFS jurisdiction are provided in Appendix A-8. No alteration to water bodies is anticipated as part of this action; therefore, consultation with the USFWS in compliance with Section 2 of the Fish and Wildlife Coordination Act, 16 U.S.C. §662, is not required.

4.2.2.4 Sensitive Habitats

The two primary wetlands (Ordy Pond and the large coastal salt flat) and the smaller coastal salt flat will be retained on federal lands. Under the State-preferred alternative, the seasonal wetland on the western boundary of the base is on land designated for light industrial use, and approximately half of the marine wetland is on land designated for parks. Potential adverse impacts on the seasonal wetland may occur during clearing for development. In either case, impacts would include destruction of the wetland and possible introduction of pollutants and silt due to runoff from construction activities and new developments. These impacts could be avoided by establishing buffer zones around the wetlands and by preventing development in wetlands. Mitigation measures would be developed in consultation with the USFWS.

Each of the alternatives has the same land use designations as the State-preferred alternative for the seasonal wetland and marine wetlands. The potential adverse impacts and possible mitigation would be the same for each alternative as described above.

Wetlands would not be altered under the No Action alternative. Therefore, no impacts are expected.

4.2.3 Cumulative Impacts

An overall decrease in undeveloped areas and open space on the base would contribute to adverse impacts on threatened and endangered species and sensitive habitats. These impacts, as assessed in Section 4.1.3, Surface Water Quality, would be temporary during the construction phase of redevelopment. No significant cumulative impacts are anticipated because of regulatory requirements designed to control storm water runoff and protect water quality. These include various requirements of the Clean Water Act such as NPDES permits and BMPs (see Section 5.6.2).

4.3 CULTURAL RESOURCES

4.3.1 Significance Criteria

For the purposes of this analysis, significant cultural resources are those properties listed or eligible for listing in the National Register of Historic Places (NRHP). As defined in implementing regulations for Section 106 of the National Historic Preservation Act (NHPA), impacts of an undertaking on significant cultural resources would be considered adverse if they "diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" [36 C.F.R. §800.9(b)]. Examples of adverse effects include, but are not limited, to the following:

- Physical destruction, damage, or alteration of all or part of the property;
- Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
- Neglect of a property resulting in its deterioration or destruction; and
- Transfer, lease, or sale of the property [36 C.F.R. §800.9(b)].

Effects that otherwise would be found adverse may be considered not adverse under the following conditions:

1. When the historic property is of value only for its potential contribution to archaeological, historical, or architectural research, and when such value can be substantially preserved

through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines;

2. When the action is limited to the rehabilitation of buildings and structures and is conducted in a manner that preserves the historical and architectural value of affected historic property through conformance with the Secretary's "Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings"; or
3. When the action is limited to the transfer, lease, or sale of a historic property, and adequate restrictions or conditions are included to ensure preservation of the property's significant historic features [36 C.F.R. §800.9(c)].

4.3.2 Potential Impacts and Mitigation

Transferring jurisdiction and control of surplus lands from Navy to other federal agencies is not considered an undertaking requiring review and comment pursuant to Section 106 of NHPA, because the properties remain in federal ownership.

Navy has neither approval authority over the community redevelopment plan nor involvement in its future implementation. Therefore, only the Navy action to dispose of surplus lands at NASBP is subject to Federal historic preservation law and regulations. The implementation of the redevelopment plan will be subject to Hawaii historic preservation law (Chapter 6E, Hawaii Revised Statutes), and therefore, a distinction is made between Navy's disposal action and the community's proposed reuse in the following discussion of impacts.

The State Historic Preservation Officer (SHPO), pursuant to Section 106 of NHPA, has concurred with the Navy's "no adverse effect" determination for the disposal of surplus lands with significant cultural resources provided the transfer includes deed covenants. Deed covenants will ensure appropriate treatment of those resources affected by proposed reuse; hence, no significant impacts on cultural resources would occur with disposal and reuse. Letters documenting this action are provided in Appendix A-9.

4.3.2.1 Archaeological Sites

As stated in Section 3.3.1 and presented in Table 3.3-1, there are 62 archaeological sites on surplus lands that are eligible for listing in the NRHP. For each of the 62 sites, Table 4.3-1 indicates the types of land use being proposed under each alternative.

Assuming that park and recreation areas involve the least construction activity, potential adverse impacts to archaeological sites eligible for listing in NRHP would be least under the No Airport alternative. Each of the other alternatives has at least 38 archaeological sites that would be developed for purposes other than parks and recreation.

The State-preferred alternative designates park and recreation uses for 24 archaeological sites eligible for listing in the NRHP. However, 38 sites are designated for residential, light industrial, and commercial/recreation land uses. The No Airport alternative has a greater number of sites designated for park and recreation uses (55), and fewer (7) designated for residential, light

industrial, and commercial/recreation land uses. The Small Airport alternative has 24 sites designated for park and recreation uses and 38 sites for residential, light industrial, and commercial/recreation land uses. The Large Airport alternative has the majority of archaeological sites in areas designated for residential, light industrial, and commercial/recreation land uses (43 sites).

The No Action alternative would place these lands in caretaker, or inactive, status under federal ownership. Minimal maintenance and security would be provided under caretaker status. No actions would be taken that might result in potential adverse impacts to significant cultural resources.

**Table 4.3-1
Comparison of Alternatives for
Archaeological Sites Eligible for Listing in the NRHP**

Site No.	Description	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative
1717 - 1721	Hawaiian habitation complex	Residential	Residential	Residential	Recreation
1722	Hawaiian habitation complex	Residential	Residential, light industrial	Residential	Recreation
1723 - 1726	Hawaiian habitation complex	Residential	Residential	Residential	Recreation
1727	Cultural sink	Residential, light industrial	Light industrial	Residential, light industrial	Recreation
1730 - 1735	Hawaiian habitation complex	Portion in Park	Portion in Park	Portion in Park	Portion in Park
1736, 1737	Hawaiian habitation/agricultural complex	Portion in Park	Portion in Park	Portion in Park	Portion in Park
1747	Sinkhole complex	Commercial/-recreation (Marine Park)	Park	Park	Park
1748 - 1750	Hawaiian habitation/agricultural w/ ranch/military (possible)/ 20th century component	Park	Park	Park	Park
1752	Hawaiian habitation/agricultural complex	Park	Park	Park	Park
1753	Hawaiian habitation complex	Park	Park	Park	Park
3722	Historic sisal walls	Recreation	Residential	Recreation	Residential

4548-4567	Hawaiian agricultural complex	Residential, light industrial	Light industrial	Residential, light industrial	Recreation
4701, 4702	Early 20th century storage, Hawaiian agricultural complex	Residential	Residential	Residential	Recreation
5093	WWII portable pillbox, roads, pads	Residential	Residential, light industrial	Residential	Recreation
5097	WW II antiaircraft battery complex	Recreation	Light industrial	Recreation	Commercial/recreation (Festival Center)
5098	Sinkhole complex	Recreation	Light industrial	Recreation	Commercial/recreation
5108	Sinkhole complex	Park	Park	Park	Park
5112	WW II training	Park	Park	Commercial/recreation (Marine Park)	Park
5114	WW II plane wreck	Park	Park	Park	Park
5115	WW II sentry post, wall, defensive features	Park	Commercial/recreation (Marine Park)	Park	Park
5117	Sisal wall	Park	Park	Park	Park
5119	Hawaiian agricultural complex	Park	Commercial/recreation (Marine Park)	Park	Commercial/recreation
5123	Sinkhole complex	Light industrial	Light industrial	Light industrial	Light industrial
5124	WWII anti-aircraft battery, machine gun positions	Commercial/recreation	Light industrial	Light industrial	Light industrial
5125	WW II pillboxes	Park	Park	Park	Park
5129	Hawaiian habitation complex	Residential, light industrial	Residential, light industrial	Residential	Recreation
5130	Sinkhole complex	Park	Park, commercial/recreation	Park	Commercial/recreation
Number of Sites within Proposed Land Uses					
Park & Recreation		24	19	24	55
Residential, light industrial, commercial		38	43	38	7
Total Sites		62	62	62	62

**Table 4.3-2 Comparison of Alternatives for
Historic Structures Eligible for Listing in the NRHP**

Building No.	Name	State-Preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative
1	Administrative Office Building	Commercial	Commercial	Commercial	Commercial
2	WW II Command Center	Residential	Residential	Residential	Residential
4	Aviation Operations and Control Tower	Airport	Airport	Airport	Recreation
87	Portable Air Raid Shelter	Recreation, Festival Center	Light Industrial	Recreation, Festival Center	Festival Center
92	Telephone Building	Recreation	Commercial, Light Industrial	Recreation	Residential
94	Theater	Commercial	Commercial	Commercial	Commercial
110, 111	Maintenance Hangars	Airport	Airport	Airport	Recreation
115	Torpedo and Bombsight Shop and Storehouse	Airport	Airport	Airport	Recreation
155, 188-9, 623, 626-7, 695-6	Ready Magazines	Airport	Airport	Airport	Recreation
1146	MCAS Ewa Hangar	Recreation	Light industrial	Recreation	Residential
1248-86, 1288-1290, 1301	Aircraft Revetments	Recreation, Festival Center	Residential ¹ , Light Industrial ²	Recreation, Festival Center	Festival Center
1506, 1523	Quonset Huts	Recreation, Festival Center	Light Industrial	Recreation, Festival Center	Festival Center
1525	ARMCO Hut/Magazine	Recreation, Festival Center	Light Industrial	Recreation, Festival Center	Festival Center
Number of Sites within Proposed Land Uses					
Non-residential		63	57	63	61
Residential		1	7	1	3
Total Sites		64	64	64	64

¹ Residential (Building No. 1248, 1249, 1250, 1251, 1260, 1261)

² Light Industrial (Building No. 1252-1259, 1262-1286, 1288-1290, 1301)

4.3.2.2 Historic Structures

Historic structures on surplus lands that are eligible for listing in the NRHP are listed in Table 4.3-2. For each of the 64 structures, Table 4.3-2 indicates the type of land use being proposed under each alternative.

Assuming that all proposed land uses, except for residential uses, are compatible with reuse or adaptive reuse of these historic structures, potential adverse impacts would be least under the State-Preferred, Small Airport, and No Airport alternatives. Potential adverse impacts would be greatest for the Large Airport alternative because it has the greatest number of historic structures in areas that would developed for residential purposes.

The State-preferred, Small Airport, and No Airport alternatives all have one or three structures of the 64 total structures located within areas designated for residential use. The majority of structures, under these three alternatives, are located within areas likely to be compatible with reuse or adaptive reuse of historic structures. In the Large Airport alternative, seven of the 64 structures are located in areas designated for residential use. No actions would be taken that might result in potential adverse impacts to significant cultural resources.

The No Action alternative would place these lands in caretaker, or inactive, status under federal ownership. Minimal maintenance and security would be provided under caretaker status. No actions would be taken that might result in potential adverse impacts to significant cultural resources.

4.3.3 Cumulative Impacts

There would be no significant cumulative impacts.

4.4 PUBLIC HEALTH AND SAFETY

4.4.1 On-site Contaminated Areas/Hazardous Substances

4.4.1.1 Significance Criteria

Existing contaminated areas are considered significant if they are determined to have the potential to substantially impact human health or the environment, considering the planned land uses and related human exposure scenarios.

4.4.1.2 Potential Impacts and Mitigation

No significant impacts from existing contaminated areas would occur and no additional mitigation is required because existing areas of contamination and POIs must be identified and remediated to levels protective of human health and the environment (or have a proven, effective remediation underway). Many of the existing areas of contamination and POIs have been successfully cleaned up or sampling data have indicated that they may be suitable for the proposed land uses (commercial, recreation, etc.) under the State-preferred plan. If cleanup is not completed prior to

property conveyance, an amendment to CERCLA (Section 334 of the FY1997 Defense Authorization Act) allows for the conveyance of contaminated or potentially contaminated properties with the Governor's approval. In this case, the following conditions must be accomplished:

- agreement by the U.S. EPA and the state that the property is suitable for the intended use and that the intended use will protect human health and the environment;
- public notice and comment;
- property use restrictions, if necessary, to ensure that human health and the environment are protected and that the necessary remedial actions can take place;
- assurances from the federal government that conveyance of the property will not substantially delay response actions at the property and that the federal government will continue any necessary response actions after conveyance; and
- a federal budget request for adequate funding to complete the remedial actions on schedule.

Deed restrictions will address the level of cleanup performed (if required) to ensure that future development of these areas remains protective of human health and the environment. Cleanup of contaminated areas at NASBP is the responsibility of the Navy.

4.4.1.3 Cumulative Impacts

No significant cumulative impacts from contaminated areas outside of NASBP would occur.

4.4.2 Hazardous Air Pollutants and Hazardous Materials at Neighboring Campbell Industrial Park

4.4.2.1 Significance Criteria

No specific regulatory criteria have been established to determine the safe distances between air toxic and flammable release areas, and planned land uses. As a result, risk management plans such as those prepared by CLEAN are intended to improve the effectiveness of existing response resources and to improve community alert and emergency notification by providing information about CIP, its residents, and specific hazards associated with CIP. Toxic release impact areas, defined as areas affected by ERPG-2 toxicity levels under worst-case conditions, are identified in risk management plans to show areas and risk.

In addition to evaluating the potential impact of CIP hazards to proposed reuse plans, reuse plans were evaluated for their potential to generate hazardous air pollutants or hazardous materials. Activities that use materials with air toxic or flammable characteristics, and in quantities subject to CAA Section 112 regulations, would contribute to potential public health and safety concerns.

4.4.2.2 Potential Impacts and Mitigation

Without established regulatory criteria for identifying safe distances between air toxic or flammable releases, with respect to planned land uses, the significance determination is basically a risk management decision based on the information available.

Using the information provided in Chapter 3.4.2, short-term (acute) effects under worst-case release scenarios of anhydrous ammonia, chlorine, hydrogen sulfide, and sulfur dioxide could affect the western portion of NASBP. Due to the presence of flammables, radiant heat or blast overpressure could cause significant injury for unprotected individuals in the same area. None of these scenarios are likely to occur in the lifetime of the facility and are considered rare events. If such impacts were to occur, releases would have to occur during the absence of trade winds, which are infrequent occasions. For these reasons, no significant risk of impact would be associated with the proposed residential areas in the western portion of NASBP.

While no significant risk of impact is expected (based on the fact that hazardous, flammable, radiant heat or blast overpressure releases are highly unlikely), DOH strongly discourages development of residential areas in the northwest area of NASBP, as is stated in the following:

The current probability and magnitude of the threat is relatively small; however, the threats are real. We should encourage a conservative buffer between CIP and residential communities. Placing residents, regardless of whether they are transient or permanent, near or adjacent to CIP should be discouraged. The fact that housing currently exists in this area at Barbers Point should not in itself support placing additional people in this area. There is a current problem and placing additional people in the area will only exacerbate the problem (Bruce S. Anderson, State of Hawaii Department of Health, letter to Richard Egged, Department of Business, Economic Development and Tourism, December 20, 1996).

The decision to develop residential units in the northwest area of NASBP is left up to the discretion of the LRA and DHHL.

To evaluate the potential impact on public health and safety that could result from the activities associated with the reuse alternatives, potential emissions of hazardous air pollutants and materials use associated with each of the reuse plans were evaluated. This evaluation was conducted by assuming that areas designated for industrial/commercial use would have the greatest probability for containing activities that would emit hazardous air pollutants or use hazardous materials. Based on the land uses and associated areas planned for each of the development alternatives (see Table 2.1-1), the No Airport alternative has the greatest amount of land designated for industrial/commercial use (749 acres [301.1 hectares]) and therefore has the greatest potential for hazardous materials use and emissions. Based on the amount of area designated for industrial/commercial use, the potential for hazardous materials use and emissions decrease in the following order (from greatest to least): the Large Airport alternative (519 acres [210.0 hectares]), the State-preferred alternative (515 acres [208.4 hectares]), and the Small Airport alternative (489 acres [197.9 hectares]). Activities subject to CAA §112 regulations would require specific studies and considerations by the approving agencies. With the required environmental permits and approvals, such as those required under RCRA, 42 U.S.C. §6901 *et seq.*, no significant adverse

impacts on neighboring and proposed land uses at NASBP are expected. Any further evaluation of the potential for hazardous materials use and emissions would be speculative at this land use planning stage.

4.4.2.3 Cumulative Impacts

CIP will continue to attract industrial and commercial activities that will require the use or production of hazardous materials and emissions. Therefore, additional facilities within the NASBP reuse areas and vicinity would need to be incorporated into community plans such as the *CLEAN Emergency Plan for the Campbell Industrial Park* and emergency plans required by the Clean Air Act, Section 112, and implementing regulations in 40 C.F.R. Part 68. With the required environmental permitting, no significant adverse impacts on existing surrounding land uses are expected.

To continue industrial and commercial operations at CIP, additional residential development within the reuse areas and within the toxic release impact areas identified in risk management plans may not be prudent. Land use compatibility concerns have been presented by the business community and regulatory agencies. BHP Hawaii is concerned about the close proximity of the proposed residential area, prison, and park complex to CIP (BHP Hawaii, August 22, 1997). DOH believes that the proposed housing area in the far western corner, up to the property line separating NASBP from CIP, is an inappropriate land use (DOH, December 20, 1996). DOH recommends that a conservative buffer between the industrial park and residential communities be encouraged.

The proposed use of NASBP for light industrial, commercial, and recreational type uses, without residential uses, would provide a transition zone between the heavy industrial uses at CIP to the west and the residential communities to the east and north, e.g., the City of Kapolei. This transition zone would be consistent with the general policy for the Barbers Point Industrial Area (which includes CIP, Barbers Point Deep Draft Harbor, Kenai Industrial Park, and Kapolei Business Park). This policy recognizes that the Barbers Point Industrial Area should continue to grow as Oahu's and the state's most important industrial area and recognizes its importance as an industrial harbor and fuel transfer point (C&C of Honolulu, March 1996).

4.4.3 Airport Protection Zones

4.4.3.1 Significance Criteria

FAA design criteria will be used to ensure that adequate safety measures are incorporated with the proposed airport use to protect people and property on the ground. For accommodating aircraft as large as C-130s, these criteria include 500-foot (152.4-m) wide runway safety areas (RSA) and 800-foot (243.9-m) wide runway object free areas (ROFA), centered on the runway and extending 1,000 feet (304.9 m) beyond the physical ends of the runway. For runways used exclusively by smaller general aviation aircraft, 150-foot (45.7-m) wide RSAs and 500-foot (152.4-m) wide ROFAs are required, centered on the runway and extending 300 feet (91.5 m) beyond the physical ends of the runway. These criteria and many others are used by FAA to evaluate the ALP.

4.4.3.2 Potential Impacts and Mitigation

No significant impacts from airport operations would be expected because the State DOT Airports Division's Airport Layout Plan (ALP) conforms to FAA design criteria except for the roadways within the RSA for Runway 4R. FAA design criteria ensure that adequate safety measures are incorporated with the proposed airport use to protect people and property on the ground. The ALP was conditionally approved (pending environmental review for the public benefit conveyance of airport property) by FAA on October 2, 1998. The approval included restrictions on the depiction and use of roadways located within the RSA for Runway 4R. Figure 4.4-1 shows the RSAs and ROFAs as depicted on the ALP.

In April 1997, the DOT Airports Division submitted an ALP to the FAA to reflect the intended uses of the airport. As described by DOT in its transmittal letter dated April 21, 1997:

The Redevelopment Commission intended the proposed airport to include one 8,000-foot Runway 4R-22L in order to accommodate the requirements of the commercial airlines and military for an alternate landing site designation, one 4,500-foot Runway 4L-22R for general aviation operations, and one 6,000-foot crosswind Runway 11-29 for takeoffs over the ocean on Runway 11 and landings over the ocean on Runway 29. The Airport will also serve the aviation needs of the Hawaii National Guard, from their 150-acre parcel abutting the Airport, and the U.S. Coast Guard, from their 48-acre parcel abutting the Airport. The Airport will also be used for the aviation operations of the City and County of Honolulu Fire and Police Departments and the University of Hawaii's proposed aviation training school from their 4-acre parcel abutting the Airport.

With the described intended uses, specific modifications and waivers were requested by DOT from FAA. The letter continues:

The airport plan, as included in the Community Redevelopment Plan, will require FAA approval of waivers or modifications to design standards in order to accommodate the Redevelopment Commission's intended aviation uses for the facility. The enclosed Airport Layout Plan does not include one element of the Community Redevelopment Plan that would adversely affect the Redevelopment Commission's intended uses of the Airport. This is the upgrading of Coral Sea Road, from a 2-lane limited use road to a 4-lane public road within an 80-foot right-of-way, around the southwest end of Runway 4R. This would result in reducing the length of Runway 4R-22L to less than 7,000 feet and not being able to accommodate the Redevelopment Commission's intended aviation uses as a commercial airline and military alternate airport...

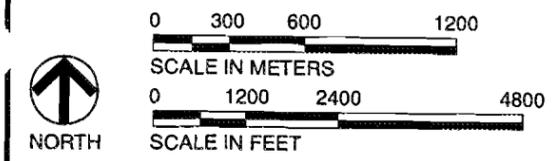
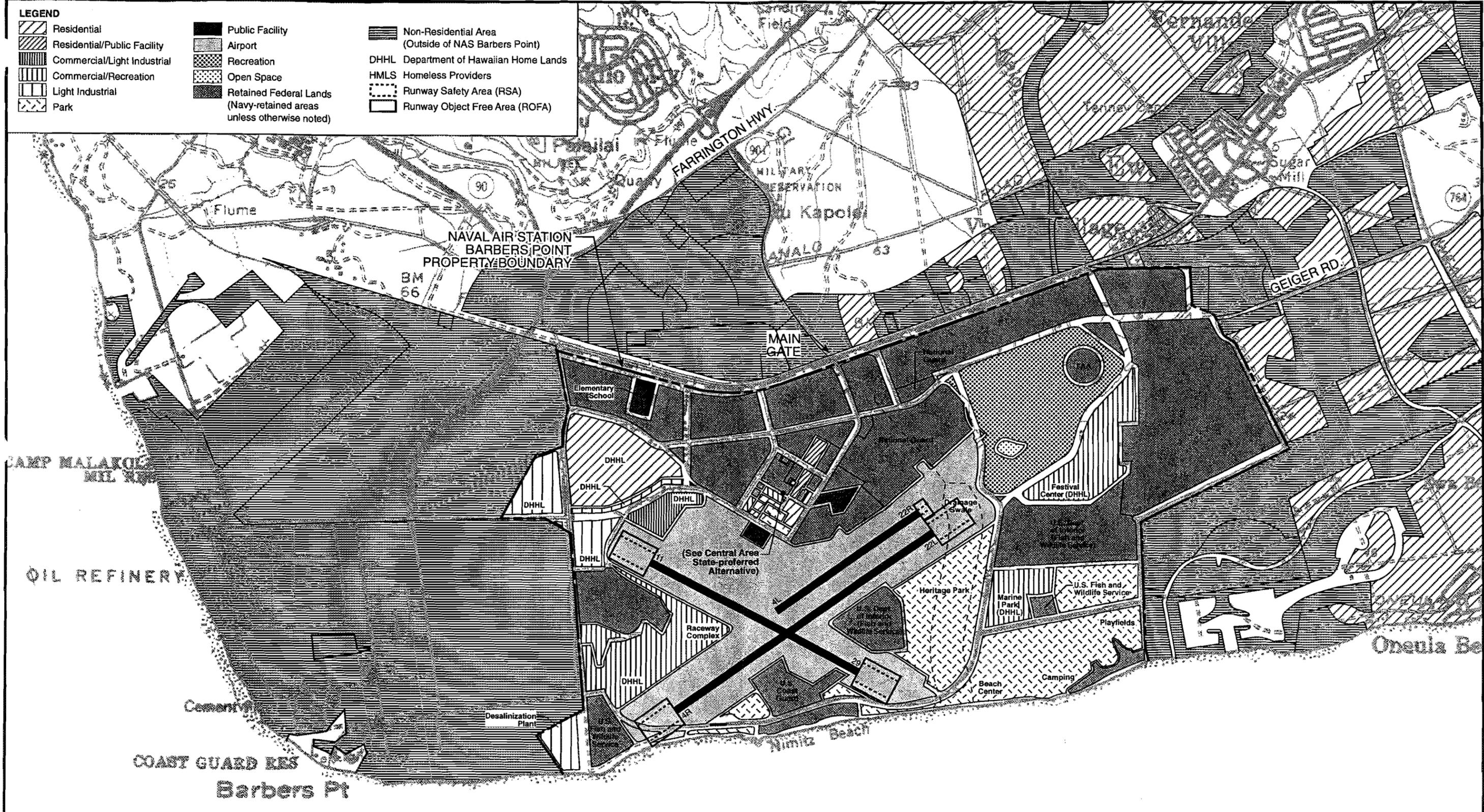
On September 19, 1997, the FAA responded to DOT's request for waivers and modifications. FAA's response included the identification of areas that are required to be owned by DOT in fee; denial of the request for waiver of the standard 500-foot-wide (152-meter-wide) runway safety area (RSA) extending 1,000 feet (304.8 meters) out from Runway 4R; and notice that the use of Coral Sea Road at the southwest end of Runway 4R would violate RSA, ROFA, and FAR Part 77 approach surface requirements. The DOT submitted a revised ALP dated February 26, 1998, to reflect the

FAA's responses. To respond to FAA requirements, a segment of Coral Sea Road to the southwest of Runway 4R was planned to remain closed to the public. However, because road closure was contrary to the LRA's understanding of the State-preferred alternative, DOT updated the ALP to reflect a "potential two-lane road." The updated ALP was submitted to FAA on August 25, 1998, and FAA conditionally approved the plan on October 2, 1998. FAA's conditional approval was based on the need for environmental approval of the public benefit conveyance of airport property from the Department of the Navy. The approval also included restrictions on the depiction and use of roadways located within the RSA for Runway 4R that can be used as airport service roads. These restrictions include:

- Airport tenant vehicles and fueling vehicles must be prohibited from using the service road.
- The service road should only be used for daily airfield inspections by airport management.
- The service road may also be used for maintenance and inspection of the Runway 4R Approach Lighting System.
- All airfield employees operating vehicles on the service road within the RSA must be adequately trained to assure that no pending aircraft operations will occur on Runway 4R/22L before traversing the RSA.
- Appropriate signs are installed, along the service road where it intersects the Runway Protection Zone, stating use prohibitions and cautioning airport employees to use the appropriate clearance procedure before proceeding across the RSA.
- All RSA crossings are coordinated with Airport Traffic Control Tower (ATCT) personnel during hours of ATCT operation.
- The airport service road must not be converted to tenant or public use.

A future road (the "potential two-lane road"), the location of which is yet to be determined, is proposed in the southwest corner of NASBP to provide public thoroughfare to the southwest of Runway 4R and will link portions of Coral Sea Road to the west and east sides of the airport. The design and environmental analysis of this future road will be undertaken at a later date. The LRA and the State DOT have agreed to this future undertaking. A Memorandum of Understanding (MOU) has been prepared between the LRA and the State DOT providing the details of this agreement (see Appendix D). A separate non-Navy NEPA document will be required to assess the environmental impacts of the future road project. Approvals from FAA and other affected agencies will be required for the roadway design.

To address BHP Hawaii's concerns, as identified in Section 1.6.1, the flight paths of the general aviation reliever airport would not cross over the refinery; therefore, risks to public health and safety would be minimal and not significant. General aviation flight training operations will comply with the requirements identified in the ALP.



Sources: RSAs and ROFAs: State of Hawaii, Airports Division of the Department of Transportation (August 18, 1998) Airport Layout Drawing; NASBP Land Use for State-preferred Alternative: Helber Hastert & Fee Planners (December 1997); Federal Retention Areas: PACNAVFACENGCOM (September 28, 1998); Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997); Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.4-1
SELECTED FAA DESIGN CRITERIA
FROM AIRPORT LAYOUT PLAN

EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii

Risk of Bird Strikes. The incident rate for bird air strike hazards has fluctuated considerably in the past. This is due partly to the opening and closure of a feed lot at Campbell Industrial Park and increased urbanization in the vicinity of NASBP. Intensified wildlife hazard management procedures have significantly reduced the number of bird air strikes during the past year. Historically, bird air strikes have not been a serious problem. However, due to the presence of resident and migratory birds at the coastal salt flat between Runway 4R-22L and Taxiway K, there is a potential risk of birds colliding with aircraft and creating a hazard. For the State-preferred alternative, the airport and salt flat will be maintained as they are at present. The potential for such risk would therefore be similar to the present, and no significant impact is anticipated. For the Large Airport and Small Airport alternatives, the potential would be similar to the State-preferred alternative. For the No Airport alternative, no airport would be developed on reuse lands, so no bird strikes would occur. The No Action alternative would eliminate the potential for bird strikes since the airport would be closed. In either of the airport-containing reuse alternatives, no significant risk of bird strikes is anticipated. This conclusion is supported by the absence of significant bird air strike problems in the past, and because the airport is required to comply with 14 C.F.R. §139.337 to assess and, if needed, to minimize the risk of bird air strikes.

4.4.4 Explosive Safety Quantity Distance (ESQD)

As discussed in Section 3.4.4, no significant impacts from ESQD arcs would occur because they will be nonexistent in surplus areas upon closure.

4.4.5 Executive Order 13045 - Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045, dated April 21, 1997, 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 shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.”

The following issues require discussion of the potential for disproportionate effects on children: noise, existing and future environmental contamination, and hazardous air pollution.

- **Noise.** The three airport alternatives would have lower noise levels than baseline conditions, and noise levels would be less than 60 DNL in all noise-sensitive areas such as homes and schools. There is no evidence that noise exposure has a greater effect on children in terms of damage to hearing (Memorandum for the Record, June 5, 1998).
- **Existing Environmental Contamination.** As explained in Sections 3.4.1 and 4.4.1 in this document, Navy will identify and remediate (or be in the process of remediating) existing areas of contamination to protect human health and the environment prior to property conveyance. A higher level of cleanup is required in areas slated for residential, recreational, and other more sensitive land uses. Hence, no disproportionate effects on children would be associated with the disposal action.

- **Future Environmental Contamination.** Concerns about exposure of children to future environmental contamination would focus on areas such as housing, schools, and playgrounds. Compared to residential and recreational land uses, industrial and commercial activities would have the highest potential for hazardous materials use and emissions. With the required environmental permits and approvals, however, no significant adverse impacts are expected.
- **Hazardous Air Pollutants.** Residential development is proposed in the northwest corner of the base, within proximity to industrial activities at Campbell Industrial Park. As stated in Section 4.4.2.2, no significant risk of impact is expected since air toxic or flammable releases are considered highly unlikely. However, DOH strongly discourages residential development in the northwest part of NASBP and recommends that a conservative buffer be established between the industrial park and residential communities. Without specific regulatory criteria for identifying safe distances between possible air toxic or flammable releases and potentially sensitive land uses, the significance determination is basically a risk management decision. Based on the information available and the highly unlikely chance of a worst case scenario occurring, no significant and disproportionate effects on children are expected. In a worst case scenario (highly unlikely), there could be a disproportionate health and safety risk to children living in this area. This issue should be considered and addressed by the LRA and DHHL as they continue through the planning process.

4.5 PUBLIC SERVICES

4.5.1 Significance Criteria

The proposed action would result in a significant impact on public services if it:

- causes remaining service or capacity to be substantially increased or if new services must be developed beyond those existing or currently planned;
- results in current service capacity being exceeded such that accepted levels of service could not be maintained; or
- causes response times for fire protection or law enforcement to increase beyond their respective department standards.

4.5.2 Potential Impacts and Mitigation

Potential impacts due to the various reuse alternatives, and mitigation for any potentially adverse impacts, are discussed below. Overall population increases due to various alternatives range from approximately 4,000 (State-preferred alternative) to approximately 6,400 (Large Airport alternative). These increases would contribute less than 4 percent to the regional population (SMS Research & Marketing, October 1997).

4.5.2.1 Education

Residential development in reuse areas would result in an increased elementary school-age student population ranging from 347 (State-preferred alternative) to 554 (Large Airport alternative) in the reuse area (numbers based on total resident population statewide and public school attendance in 1994; SMS Research & Marketing, October 1997). An additional 90 to 143 intermediate school-age and 176 to 280 high school-age students would also be expected. At full development, the reuse area school population would comprise from about 50 to 80 percent of the current average population for district elementary schools, from 8 to 13 percent of the average for district intermediate schools, and from 10 to 16 percent of the average for district high schools. This means that, for most of the alternatives, the number of elementary school students could more than double, and increases in intermediate and high school students would also have an impact, although smaller, on area schools.

Therefore, proposed development in the reuse areas of NASBP under all alternatives would result in potentially significant adverse impacts on the existing elementary school staff and facilities. Mitigation could include adding new classroom buildings at Barbers Point Elementary School and/or redistricting to reallocate the student populations. The goal would be to maintain the quality of educational services for NASBP residents at a level consistent with other area schools. Mitigation of impacts to a level of nonsignificance could also include construction of a second elementary school in the area to provide services to Barbers Point and Ewa residents; however, the Department of Education currently had no such plans (State of Hawaii DOE, September 16, 1998).

4.5.2.2 Police

Development of reuse lands on the base under each of the alternatives would contribute less than 4 percent (or approximately 4,100 to 6,500 people) to the regional population. According to the C&C of Honolulu Police Department's planning ratio (two officers per 1,000 population), the reuse area would need from eight to 13 officers by the year 2020. This increase is not expected to have a major impact on police staffing in the area. The present District Command has 129 police officers, and the new police station in Kapolei, which should be completed upon NASBP closure, will house approximately 210 officers. Demands on police services that will arise due to redevelopment would include the following:

- traffic control for events at commercial recreational areas;
- security for events at commercial recreational areas;
- security at beach parking areas, particularly to prevent thefts from visitors' cars; and
- security measures for low-income and homeless family communities in reuse areas.

Development of reuse lands would not require services beyond those currently planned and would not jeopardize accepted levels of service. Therefore, no significant impacts on regional police services are expected under any of the alternatives.

4.5.2.3 Fire

No significant impacts on regional fire services are expected under any of the alternatives. The existing operational firefighting facility on base, which responds to aircraft fires, would be

conveyed to the State DOT Airports Division. This conveyance would occur under the State-preferred alternative, the Large Airport alternative, and the Small Airport alternative; the No Airport alternative has no need for an aircraft fire fighting facility. Firefighting capabilities of the Kapolei and Ewa Beach stations, supplemented by the existing fire station on base, would be sufficient to handle the increased demand for service from new developments in reuse areas. In addition, planned roadway improvements and better integration into regional transportation systems would improve access and emergency response time to locations on the base.

Under all alternatives, no mitigation would be required as the C&C of Honolulu Fire Department could sufficiently serve the reuse area. Additionally, the firefighting facility on the base that will remain would assure continuity of service to property on retained lands, and supplement service in reuse areas provided by Kapolei and Ewa Beach stations.

4.5.2.4 U.S. Coast Guard

Under the State-preferred, Large Airport, and Small Airport alternatives, the U.S. Coast Guard would maintain its presence at NASBP. Under the No Airport and No Action alternatives, which would involve closure of the airfield, the U.S. Coast Guard would need to relocate. The required environmental documentation is outside the scope of this EIS.

4.5.2.5 Health Care

Impacts from all alternatives on medical services and major regional medical facilities would not be significant.

All of the redevelopment alternatives include new on-site clinical facilities. The medical needs of the homeless and low-income groups would be provided for under a continuum of care services. Other residents would have access to the medical facilities planned for Kapolei as well as existing medical facilities in the district.

In addition, because plans under each alternative include facilities for those that may experience difficulty obtaining medical treatment (i.e., low income and homeless), the overall impact of redevelopment could be beneficial to the region. Therefore, no mitigation would be required.

Under the No Action alternative, no additional demand for medical services would arise.

4.5.3 Cumulative Impacts

The long-term cumulative impacts on public services due to redevelopment alternatives at NASBP would be minimal or positive.

One exception is education facilities, which would initially encounter significant increases in the numbers of area residents and school children. This could be mitigated by increasing the capacity of Barbers Point Elementary School to the level of other area elementary schools, or by building a new elementary school in the vicinity. Because large residential developments are expected to continue as Ewa and Kapolei develop into the Secondary Urban Center of Oahu, the relative

impact of residential development at NASBP would be small. The capacity and quality of schools in the Ewa district is a regional issue that the State would need to address over the long-term.

Medical services would be enhanced in the Ewa area, especially for low-income and homeless families, due to the development of new facilities under each alternative. The other services, police and fire, would not be overextended due to development of reuse lands.

4.6 SOCIOECONOMIC ENVIRONMENT

4.6.1 Significance Criteria

Socioeconomic impacts would be significant under the following scenarios:

- Reduction in the availability of jobs, and an increase in travel distance to jobs.
- Adverse effects on cultural practices.
- Increase in inter-ethnic conflict.
- A 10 percent change in jobs onsite or 5 percent change in the share of jobs islandwide in 2020, which would cause a rise in regional or island wide unemployment, create direct and indirect jobs that could not be filled by the current population, and result in a major in-migration of new residents.
- Substantial interference with neighboring businesses or significant impact on the regional economy, such that expenditures by government agencies could not eventually be balanced by tax revenues collected from the area or the State.
- Changes in the demand for housing substantial enough to cause dislocation in the market, reflected by accelerated price increases or decreases and vacancy rates below or above historic levels (10 percent change on site, or 5 percent change in share of regional or islandwide housing in 2020).
- Significant adverse effect on regional community services, recreation facilities, or public resources where demands due to an increase in population could not be met.
- Disproportionately high and adverse environmental effects on minority and/or low-income populations.

4.6.2 Potential Impacts and Mitigation

4.6.2.1 Population

The proposed development would greatly increase the resident population of the reuse area over the baseline situation. Under all redevelopment alternatives, the population in the reuse area would be more than 20 times as large as the baseline condition, increasing the occupation density.

However, no adverse impact would be evident since the projected settlement density would be well within the range found in urban areas. Resident population in the reuse area under the various alternatives would range from 4,000 (State-preferred alternative) to 6,400 (Large Airport alternative). The impact on regional and island populations would be modest, or less than 4 percent of the region's total population.

The demographics on NASBP would change from primarily military families to a heterogeneous mix typical of the island's civilian residential makeup (refer to Section 3.6.1), including homeless people and native Hawaiians. Challenges of bringing together very different populations in a small area could be mitigated by development of a coordinating committee of agencies and interested parties involved in the different housing developments (i.e., military, Hawaiian Home Lands, and homeless). This committee could review rules, set policies, and assist in community communication and organization.

Positive impacts on indicators would be significant for homeless and minority populations who move to or gain benefits from new homes, jobs, and/or services available due to development of reuse lands. Military and civilian families would gain benefits due to increased opportunities for local employment and a reduction of commuting time. These benefits would occur under each redevelopment alternative.

Under the No Action alternative, the military and civilian resident and employee populations would decrease. The population decrease would be a result of the mandated closure. Under the No Action alternative, there would be no population increase. Some military on-base employment would remain after base closure, but would decline significantly from 5,336 military and civilian employees in 1993 to a projected 1,600 employees in 2020. At the regional level, base closure would not result in a major decrease in the residential population as Navy would continue to house families at Barbers Point.

4.6.2.2 Employment

All reuse alternatives would result in a significant increase in civilian jobs. Employment in the reuse area in 2020 is estimated to reach 3,600 (State-preferred alternative), 9,300 (Large Airport alternative), 6,800 (Small Airport alternative), and 4,000 (No Airport alternative). These direct, civilian job counts represent an increase over baseline conditions (civilian jobs only) of 730 (State-preferred alternative), 1,863 (Large Airport alternative), 1,369 (Small Airport alternative), and 813 (No Airport alternative) percent, resulting in a substantial increase in job opportunities for nearby residents. Indirect and induced employment related to operations may result in an additional 3,400 (State-preferred alternative), 8,700 (Large Airport alternative), 6,400 (Small Airport alternative), and 4,000 (No Airport alternative) new jobs. The job count differences between alternatives is primarily due to the amount of land expected to be developed as light industrial, which, if full development occurs as planned by 2020, would represent more jobs than all other operations combined.

Significant employment benefits would result from the redevelopment alternatives. Direct construction employment would amount to 1 to 2 percent of all estimated total future construction jobs on Oahu over a 21-year redevelopment period, supporting an average of 400 to 600 construction jobs annually. Major infrastructure and large facility projects, such as the international

sports center, would generate the most construction employment. About 40 percent of these would be due to direct construction jobs and 60 percent due to indirect and induced jobs.

Last, the combined military and civilian changes in job counts from baseline conditions are presented. The State-preferred alternative would result in fewer combined civilian and military operational jobs in the reuse area, 83 percent of baseline (1993) conditions. The Large Airport alternative would result in a significant increase in combined jobs, 212 percent of baseline conditions. Military and civilian job opportunities under the Small Airport alternative would be slightly greater (153 percent of baseline conditions), but not significant. Military and civilian job opportunities under the No Airport alternative would be 92 percent of baseline conditions. Over the long-term, a significant increase in civilian jobs related to operations is anticipated under each alternative.

The great majority of jobs could be filled by Oahu residents, so there would be no significant influx of in-migrants (non-resident employees who are attracted to area because of a specific project or activity) to fill jobs generated by the proposed development. The sports-tourism sites are an exception. The international sports center could attract coaches and trainers worldwide, in addition to sports professionals and visitors. The in-migrant population associated with the sports venues would not be significant, and visitors and athletes would be in Hawaii for a short period of time. Therefore, no mitigation measures would be required.

No employment-related impacts are anticipated under the No Action alternative since no new job opportunities would be initiated on base.

4.6.2.3 Fiscal Impacts

Total income expected from direct and indirect employment related to the reuse alternatives would not represent a significant change to Hawaii's overall economy. However, the reuse alternatives would stimulate the economy, attract new business, create jobs, diversify employment opportunities, and provide economic stability in the area after base closure, which are consistent with state and C&C of Honolulu objectives. Net combined income from direct and indirect operations-related employment in the reuse area would range from approximately \$197 million (State-preferred alternative) to nearly \$526 million (Large Airport alternative) in 1996 dollars. Net combined income for the Small Airport alternative would be \$381 million and \$231 million for the No Airport alternative.

Although State and C&C of Honolulu development costs for the proposed alternatives are difficult to estimate, it is likely that the net fiscal impact of reuse on both levels of government would not be adverse over the long-term. Revenues associated with the reuse alternatives for both the State and C&C of Honolulu would likely be greater than the cost of providing additional government services. Tax revenue would be generated from construction (for the State) and continuing revenues from property taxes (for the C&C of Honolulu). Construction-related revenues could reach \$100 million for the State-preferred alternative, \$114 million for the Large Airport alternative, \$123 million for the Small Airport alternative, and \$159 million for the No Airport alternative. Annual property tax revenues to the C&C of Honolulu could grow to \$5 million for the State-preferred alternative, \$12 million for the Large Airport alternative, \$9 million for the Small Airport alternative,

and \$6 million for the No Airport alternative by the end of the construction period (assuming constant tax rates and 1996 dollars).

Government agencies would use resources to provide for new visitors and residents attracted by projects in the reuse areas, but cost for these resources would be small compared to the taxes generated with reuse. The annual costs to the C&C of Honolulu would be approximately \$500,000, much smaller than incoming revenues. State costs would be higher but still would amount only to about 1.5 percent of the revenues associated with construction.

Reuse of NASBP would involve major capital investment, estimated at \$1 billion to \$1.6 billion in construction costs over time (1996 dollars). The State-preferred alternative would involve lower costs than all others except for the No Action alternative; the Small Airport alternative would be the highest, as it includes a major electrical plant. Infrastructure improvements would be needed along with construction of the proposed facilities.

If government agencies commit to develop reuse lands themselves, there could be a significant fiscal impact on these agencies; whether this would be positive or negative cannot be determined at present. Development impacts on the State and C&C of Honolulu could result from their roles as developers of the reuse lands, including costs of infrastructure improvements. It is unclear how much financial contribution State and C&C of Honolulu agencies would be able to provide for development. The C&C of Honolulu would eventually receive property taxes, particularly from light industrial developments, that could be used to fund recreational areas and infrastructure improvements. State agencies may receive income related to Department of Hawaiian Homelands and Department of Transportation developments; other state agencies would not be expected to gain large income in relation to developments. The tax revenues associated with construction would be modest when compared to the costs of developing proposed state-controlled lands.

Major land uses such as a general aviation airport, parks, and low-income housing would provide little continuing income. They would require government agencies to pay a share of infrastructure and public facility development costs. In light of current government budget constraints, some of these large public projects could tie up capital improvement funding for decades. Long-term costs would be due largely to improvements that respond to regional needs for recreation and islandwide demand for affordable housing.

To offset fiscal impacts to the State and C&C of Honolulu, agencies may seek private sector participation to reduce the burden of redevelopment.

The No Action Alternative would result in significant economic land resources being unavailable for use by local communities and government agencies. Under the No Action alternative, Navy's caretaker status would result in the DOD retaining ownership of the lands. Local reuse of the property would not occur; therefore, there would be no economic benefit from employment income or tax revenues. In addition, the DOD would continue to incur costs for property maintenance. PACNAVFACENGCOM has budgeted \$4.8 million for caretaker activities in 2000, the first full year after closure.

4.6.2.4 Housing

Reuse alternatives would bring a major change in the on-site housing supply, but it would cause a minimal impact on regional and island wide housing levels. Each reuse alternative includes DHHL-sponsored residential housing and HHA-sponsored low income rental and self-help housing. This housing would address the needs of each of these groups for affordable housing on the island.

The provision of new housing for Hawaiian and homeless populations would be a significant benefit from a regional and islandwide perspective. Reuse area housing units for homeless, low-income, and native Hawaiian groups would increase by more than 1,000 units (from 200 barracks-type accommodations in 1993). The total unit count would range from 1,281 (State-preferred alternative) to 1,900 (Large Airport alternative). Total unit counts would be 1,588 for the Small Airport alternative and 1,711 for the No Airport alternative.

The impact on housing availability, property value, and rental rates in other geographic areas would be small. New residents in the reuse area would come from all areas of Oahu. Current and planned residential developments throughout the island should be able to meet the long-term residential needs for market-priced housing.

No impacts are anticipated under the No Action alternative since no new housing would be constructed.

4.6.2.5 Recreation

There would be a significant positive impact on recreational opportunities in the region and islandwide as each reuse alternative significantly increases parks and recreation acreage. This would help to alleviate or even eliminate the projected shortfall in parks and recreational lands anticipated by the C&C of Honolulu through the year 2020 (62 acres for community-based parks and 453 acres for islandwide parks).

All of the alternatives for reuse lands include acreage for development of regional parks and recreation areas. The size of recreation area ranges from 395 (Large Airport alternative) to 965 acres (No Airport alternative) (159.8 to 390.5 hectares). These facilities would provide activities for children, families, sports leagues, and the community in general. Development of the site's shoreline park would open up the coastal areas which have been inaccessible to the general public for some time.

Under the No Action alternative, there would be no appreciable change in demand for and supply of parks in the region.

4.6.3 Executive Order 12898 - Environmental Justice

Executive Order 12898, dated February 11, 1994, requires federal agencies to address the potential for disproportionately high and adverse environmental effects of their actions on minority and low-income populations. Agencies are required to ensure that their programs and activities which affect human health or the environment do not directly or indirectly use criteria, methods, or practices that discriminate on the basis of race, color, or national origin. NEPA documents are specifically

required to analyze effects of federal actions on minority and low-income populations and, whenever feasible, develop mitigation measures to address significant and adverse effects on these communities. In addition, the Executive Order requires provisions for community input in the NEPA process. It states that the public, including minority and low-income communities, should have adequate access to public information relating to human health or environmental planning, regulation, and enforcement.

In response to the Executive Order, this document provides a demographic frame of reference for the setting in which NASBP is located. Census data on income and ethnicity in the region of influence is summarized in Section 3.6.

The process used by Navy in its environmental documentation is being conducted in a manner which encourages low-income, Native Hawaiian, and minority population participation in the process. None of the criteria used to evaluate the various alternatives or the significance of impacts discriminates on the basis of race, color, national origin, or income.

This document assesses human health, economic, social, and environmental effects of the various alternatives. The primary region of influence for assessing impacts on minority and low-income populations is the immediate vicinity, including the base itself and nearby towns such as Kapolei. Analysis reveals that the reuse alternatives would not have a disproportionately high and adverse impact on minority or low-income populations.

- **Social and Economic Impacts.** Reuse of NASBP would have potentially significant positive social and economic impacts since certain housing and public services would be developed specifically for minority and low-income populations, including Native Hawaiians, the homeless, and individuals/families who qualify for affordable housing. Increased job opportunities and recreation areas in the reuse areas may also benefit these populations.
- **Noise.** Noise from the proposed airport operations would not have a disproportionately adverse impact on minority or low-income populations. The three airport alternatives would have lower noise levels than baseline conditions, and noise levels would be less than 60 DNL in all noise-sensitive areas such as homes and schools.
- **Existing Environmental Contamination.** Minority or low-income populations would not be subject to significant impacts from onsite contamination because existing areas of contamination and POIs must be identified and remediated to levels protective of human health and the environment (or have a proven, effective remediation underway). Many of these sites have been successfully cleaned up, or sampling data have indicated that they may be suitable for the proposed land uses.
- **Future Environmental Contamination.** The No Airport alternative, with the greatest amount of land designated for industrial/commercial use, would have the highest potential for hazardous materials use and emissions. With the required environmental permits and approvals, however, no significant adverse impacts are expected. No disproportionately high or adverse impacts are anticipated on minority or low-income populations.

- **Hazardous Air Pollutants.** Residential development is proposed in the northwest corner of the base, within proximity to industrial activities at Campbell Industrial Park. The area may accommodate housing for DHHL beneficiaries, affordable housing, as well as housing and programs to serve populations with special needs. All DHHL beneficiaries are Native Hawaiian. Although no data is presently available regarding the income level or ethnicity of other future residents, it can be assumed that a portion may be minority and/or low-income.

As stated in Section 4.4.2.2, no significant risk of impact is expected from proposed residential development in this area, since air toxic or flammable releases are considered highly unlikely. However, DOH strongly discourages residential development in the northwest part of NASBP and recommends that a conservative buffer be established between the industrial park and residential communities. In a worst case scenario (highly unlikely), the DHHL residential area would be affected along with other areas in the vicinity. Without specific regulatory criteria for identifying safe distances between possible air toxic or flammable releases and potentially sensitive land uses, the significance determination is basically a risk management decision. Based on the information available and the highly unlikely chance of a worst case scenario occurring, no significant and disproportionate effects on minority and low-income populations are anticipated. This issue should be considered and addressed by the LRA and DHHL as they continue through the planning process for proposed residential development.

4.6.4 Cumulative Impacts

Development of surplus lands at NASBP, under the reuse alternatives, along with future growth in Kapolei, would result in significant positive impacts on regional and island wide employment opportunities, availability of low-income housing, and the supply of recreation facilities. The reuse alternatives are consistent with the State and C&C of Honolulu's objective to better blend into the surrounding community than at present.

Recognizing the importance of government commitment of fiscal resources, significant adverse cumulative impacts on government fiscal resources could occur if government agencies commit to acting as the developer for the larger proposed projects, without private investment.

The No Action alternative would reduce long-term opportunities for economic growth and recreational space in Ewa, and could be viewed as incompatible with the area's designation as a Secondary Urban Center.

4.7 INFRASTRUCTURE

4.7.1 Potable Water

4.7.1.1 Significance Criteria

Under Section 30-2.2 of the Revised Ordinances of Honolulu, the policies of BWS are to guide use and commitment of water resources. Therefore, the BWS *Water System Standards* were selected as the significance criteria for assessing land use within the reuse area. A projected gross area water

use in excess of the minimum the guidelines set forth in the *Water System Standards* would be significant.

Table 15 of the *Water System Standards* indicates average daily domestic consumption guidelines for gross land use. The minimum average day demand for various land uses range from single family residential at 2,500 gallons per acre per day (gpad [25 m³/ha/d]) to 4,000 gpad (40 m³/ha/d) for light industrial.

Use of criteria such as storage capacities or pressures were not evaluated because it is anticipated that new lines would be constructed to serve the reconfigured site parcels and their users. The sizing of these new lines would thus be determined during the utility master planning stage and reconfirmed at the time of site design.

4.7.1.2 Potential Impacts and Mitigation

Methodology

Potable water demands for the various identified reuse area parcels were estimated using the "Domestic Consumption Guidelines" in the BWS *Water System Standards*. The average daily water demand estimate was applied to single and multi-family residential, commercial, and light industrial land uses. The demand for public facilities was assumed to be the same as for light industrial, which was higher than the identified use for commercial establishments.

In certain cases where the assumptions provided in the BWS *Water System Standards* were not appropriate for use, such as reuse areas designated for the airport and motor sports raceway complex, potable supply demands were estimated on the basis of users (as estimated for the socioeconomic analyses). The water demand per user was computed using 130 percent of the flow figures stated in HAR Chapter 11-62 for Individual Wastewater Systems as the general guideline in utility system design is to assess wastewater discharges as 75 to 65 percent of the water use to account for system and consumption losses. Therefore, by multiplying the wastewater discharge figures by 1.3, an approximation of the likely potable water consumption per park or special facility user could be generated.

Assumptions

For the purpose of the water demand analyses, it was assumed that BWS would be the ultimate utility provider for potable water in the reuse area, and that service from Navy's system would be discontinued. No comparison of existing and proposed future demands is necessary since service from the existing system would be discontinued under reuse. It was also assumed that the BWS criteria would apply, with adjustments made for non-potable water use as stated above. Service on an interim basis for some reuse areas was assumed to be from the Navy's system until such time that BWS service is available to such areas.

Potential Impacts

The projected potable water demand for the various reuse area alternatives is summarized as follows:

DEVELOPMENT CONDITION	ESTIMATED POTABLE WATER DEMAND	
	Average Day MGD (m ³ /d)	Consumption gpad (m ³ /ha/d)
State-preferred Alternative	1.22 (4,880)	581 (5.8)
Large Airport Alternative	2.60 (10,400)	1,238 (12.4)
Small Airport Alternative	1.91 (7,640)	910 (9.1)
No Airport Alternative	1.38 (5,520)	657 (6.6)

Based on the projected water consumption for all alternatives, there would be no significant impact on the water supply under any reuse alternative. The projected consumption for all alternatives is less than half of the minimum BWS guideline figure of 2,500 gpad (25 m³/ha/d).

In terms of availability of supply for the various land uses under each alternative, the water sources, storage and transmission system capacities will need to be coordinated with Navy and BWS at the time of project development. The Navy's well pumps are located in the Ewa-Kunia aquifer, a groundwater control area where the sustainable yield is presently being assessed by the CWRM. It is likely that the aquifer water withdrawal allocations will be decreased as a result of the assessment. The BWS through their booster pump system has the ability to transfer water from other groundwater areas to the Ewa-Kunia region. Also, BWS has long-range plans to implement desalinization.

Implementing service in the reuse area from the BWS supply, however, would require distribution infrastructure. To date, BWS has indicated a strong reluctance to assume ownership of the existing NASBP water system in the reuse area. This reluctance is based on the age of the system, 20 to 40 years old, and the differences between BWS and military design standards, construction requirements, and material specifications.

Mitigation

Since all of the proposed land use alternatives would require less water than that expected from similar-sized developments on Oahu (assuming single-family housing development, which requires the least amount of water per unit area), reuse would have no significant impact at full development. During the interim period, the source, transmission and distribution of the water system are operational issues that need to be resolved between the LRA, BWS, and Navy.

A utilities master plan is currently being prepared by the State Department of Business, Economic Development, and Tourism (DBEDT). The master plan would address the source, storage, and transmission needs for the reuse area as well as distribution system requirements. From the master plan findings, suitability of the existing lines relative to size and location can be assessed along with

the costs and benefits of retaining the existing distribution network. If it is found that retaining the existing network would not be viable given BWS criteria and distribution system needs, consideration should be given to committing the lines to non-potable water service.

It should also be noted that the expense for water system infrastructure in the reuse area would be comparable to the cost for development of a similar size tract of land anywhere on the Ewa Plain. Therefore, while the cost for replacement of the existing water lines through the area could be significant, it would not be significantly greater than costs for construction in other undeveloped areas in the region. The general location of the existing lines are known, and the replacement system could be designed to avoid conflicts and costly line crossings in the event the present system is retained for non-potable water use.

4.7.1.3 Cumulative Impacts

Releasing NASBP for reuse would increase the available land in the primary growth area on Oahu. Development of the lands would create water resource demand in an area already designated as a groundwater control area. Therefore, on a long-term regional basis, the reuse area would be competing with adjacent private landowners for potable water resources, along with storage and transmission facilities.

Service to the reuse area from the BWS system would require off-site infrastructure improvements which may not be completed in time to support the reuse. Various developers in the Ewa Plain have committed to construction of water main improvements, such as the transmission main on Fort Weaver Road, for dedication to BWS. The capacity of this main to serve portions of the reuse area and its construction schedule need to be evaluated relative to implementing BWS service.

Since the retained lands can continue to be served by the Navy PWC-owned water system, no impact on the regional BWS system would occur. With the decrease in withdrawal from Navy's wells due to the lowered system demands, an improvement in the regional groundwater quality could be experienced. Should Navy decide to turn over their supply well to BWS, the C&C of Honolulu would then become responsible for maintaining pumping rates and greater management of the regional groundwater quality. Based on the BWS water development programs for the Ewa region and the reallocation of water resources from agricultural to domestic use, meeting the retained lands water requirements would not be an issue.

Mitigation

To address the competing water demands, various mitigative actions have been identified. One of the primary actions would be the use of non-potable water, from sources other than groundwater, for landscaping to the extent possible. As discussed in Section 4.7.2, the use of non-potable effluent from the C&C of Honolulu's regional wastewater treatment plant is proposed for the reuse area.

Regarding availability of potable supply, the general consensus for the Ewa region is that supply sources are obtainable. With the conversion of regional agricultural lands from sugar cane production to diversified crops, irrigation demands would decrease substantially. Water heretofore allocated to sugar growers can be released for potable supply to support land development in the

region. Also, BWS is considering a regional site, including one in the reuse area, for a desalinization plant. This plant would be for potable water production from sea water. As such, there are existing as well as long-term plans for regional water resource development to mitigate the potential competition for water supplies in the Ewa region.

Completion of the water system master plan for the reuse area and communication with the BWS would be the key factors in mitigating potential conflicts in water resource development. Completion of the plan and identifying the water transmission needs would similarly address potential conflicts with regional improvements and construction schedules. Potable water supply sources are available, but the development of them, along with construction of the associated storage and transmission facilities, need to be coordinated with the BWS which is working with other area developers to assure the provision of an adequate and safe drinking water supply.

4.7.2 Non-Potable Water

4.7.2.1 Significance Criteria

Using criteria such as a percent increase in non-potable water use is not valid since there is no such water use under present conditions. In addition, comparing non-potable costs and impacts to potable use is not valid. Potable water supplies in the Ewa region are limited, and all of the private land holders in the region have committed to using non-potable water for irrigation to the extent possible. Thus, establishing a criterion based on impacts to the potable and non-potable water supply sources was selected for assessment purposes.

Given the regional groundwater quality concerns, any non-potable water system that withdraws from the caprock aquifer, or has the potential to adversely impact a potable aquifer, would be considered significant for the purposes of this assessment. An adverse impact could potentially occur on a potable aquifer if the non-potable water was applied to land overlying it, or in an area where potential contaminants could migrate to a potable supply source.

4.7.2.2 Potential Impacts and Mitigation

Methodology

Land uses would change under all of the reuse alternatives, with more outdoor recreational areas provided, increasing irrigation water demand. To assess irrigation demand, the various areas where non-potable water could be used for landscape irrigation were tabulated. From the tabulated acreage, the irrigation demand was determined by applying 2.5 inches (6.4 cm) of irrigation water per week over park and landscaped areas outside the airport and raceway infield limits. Irrigation water application within the airfield and motor raceway was considered to be 1.25 inches (3.2 cm) per week. Lowered maintenance of vegetation in these areas was considered since ground cover is primarily for protection from foreign object damage due to aircraft and vehicles rather than use as a recreational resource or aesthetic feature.

The application of 2.5 inches (6.4 cm) for park and landscaped areas was based on the quality of the turf and landscaping likely to be desired in the sport field and recreational areas and the arid climate in the Ewa region. BWS Water System Standards indicate use of 1 inch of irrigation water

per week in parks for planning purposes. However, the higher figure was used for the purposes of this evaluation to assess maximum demand conditions.

Assumptions

For the purpose of impact assessment, it was considered that the only sources of non-potable water would be the caprock aquifer and reclaimed effluent from the Department of Environmental Service's (DES's) Honouliuli Wastewater Treatment Plant. These sources were selected based on the fact that water drawn from the basal aquifer at NASBP is considered too saline for irrigation use. Also, since DES is under a consent decree to reuse effluent from its Ewa plant, water of the proper quality for irrigation and industrial use or applications would be made available in the region and the reuse area.

Use of surface water catchment was deemed infeasible since the highest irrigation demands coincide with the dry periods of the year, making the necessary size of surface water impoundments much larger than could be reasonably accommodated within the reuse area. While other regional non-potable sources may be available, such as off-site wells or surface waters, the reuse area has no entitlements to any such sources.

The quantity of irrigation water to be applied to a reuse area was assessed from its proposed land use. The total site area, less allowable building and required parking areas, was considered as the area to be landscaped. However, rather than assume that the entire landscaped area would be planted, it was considered that a portion of it would be hardscaped. The hardscape features would be unpaved and serve as storm water retention areas to minimize construction of dry wells and infiltration galleries for storm runoff disposal. Such a feature could be a simulated dry stream bed or rock-lined depression with trees planted alongside it to provide shade and topographic relief. The adjustments made in computing irrigation requirements for the various land use areas are summarized as follows:

LAND USE	LANDSCAPED AREA FEATURES	
	Planting (percent)	Hardscaping (percent)
Light Industrial	50	50
Public Facilities	95	5
Commercial/Recreational	95	5
Parks	100	0

Irrigation water demands were determined using the above-stated methodology, based on applying the water to parks, industrial and commercial open spaces, and roadside areas. The use of non-potable water in residential areas was considered as undesirable due to the increased potential for cross-connections between the potable and non-potable water supply systems.

In assessing implementation costs for non-potable water use in the reuse area, it was considered that new infrastructure would be provided to the NASBP golf course. Since the golf course is a designated DES reuse site, non-potable water transmission mains connecting to the existing irrigation pump station are assumed to be constructed for this assessment.

Potential Impacts

No non-potable water system exists to serve the reuse areas. As such, source(s), transmission, and distribution system infrastructure would have to be constructed. The estimated non-potable water demand to be met by the new infrastructure for each of the alternatives was estimated as follows:

DEVELOPMENT CONDITION	ESTIMATED DAILY NON-POTABLE WATER DEMAND	
	millions of gallons	(m ³)
Existing - No Action Alternative	0.60	(2,400)
State-preferred Alternative	7.42	(29,680)
Large Airport Alternative	5.44	(21,760)
Small Airport Alternative	7.29	(29,160)
No Airport Alternative	8.46	(33,840)

The existing NASBP supply well could be converted to non-potable use, should chloride concentrations increase, but only 2.337 MGD (9,348 m³/d) would be available based on DLNR allocations. Navy does not recognize this limit, but the well's production capacity is small compared to the estimated reuse area irrigation demand. This constraint and the fact that Navy could implement non-potable water irrigation in the retained areas made this source unreliable for the purpose of this assessment. The source of the non-potable water for the reuse area is proposed to be the reclaimed effluent from DES's Honouliuli plant.

Based on the terms of a federal consent decree, DES is to incrementally increase its production and reuse of the Honouliuli plant effluent between July 1997 and the year 2011. While DES has identified various area golf courses and industries for use of the reclaimed effluent, additional areas of use will be needed to meet the terms of the consent decree. DES is treating the effluent to the highest standards required by DOH (R-1 quality). The effluent can be applied by spray, drip, or subsurface irrigation methods on parks, school yards, athletic fields, food crops undergoing commercial pathogen destruction before consumption, orchards, and vineyards. The R-1 effluent can also be used in decorative fountains, industrial applications, dust control, laundries, fish hatcheries, and fire fighting. Non-potable water could thus be used to create decorative ponds, fountains and water features in park, commercial, and industrial areas as part of the non-planted landscaping.

With application of the non-brackish reclaimed effluent in the reuse area, and increased infiltration of storm flows into the groundwater as identified with the hardscaping concepts, beneficial effects

on the caprock aquifer may be experienced. Since the concern associated with withdrawal from the caprock is increased salinity, providing recharge from non-saline water sources may serve to mitigate the effects of previous withdrawal and sea water intrusion into the aquifer.

Considering the proposed use of DES's Honouliuli plant effluent as the source of the non-potable water system supply, and the potential results of effluent application buffering the effects of previous groundwater withdrawal from the caprock aquifer, no significant detrimental impact from use of non-potable water would occur. The effluent would be treated to the highest levels identified by DOH, and no public health hazards would be posed by the proposed application of the R-1 quality water to the reuse areas as discussed herein. The use of the R-1 water would be consistent with the integrated water resources plan being developed by the C&C of Honolulu, as required under the State Water Code, and with the requirements of the federal EPA as dictated in the consent decree.

Mitigation

With no detrimental impacts on the caprock aquifer identified, no mitigation measures would be envisioned for implementation of the non-potable water system. Even the additional non-potable demand of 0.5 MGD (1,730 m³/d) potentially associated with the Large Airport alternative would not have a significant impact on the non-potable water system.

The use of the R-1 water would require construction of transmission lines through the reuse area and pump stations to pressurize the delivery system. To limit construction impacts associated with use of non-potable water for irrigation, the non-potable water lines should be installed as part of all new infrastructure in each reuse area. Roadway standards identifying the location of utility lines, including non-potable water, should be established. As the various recipients of the former NASBP lands develop their respective parcels, the standards should be followed to assure continuity of utility services throughout the area. Non-potable water lines should be installed to assure that the infrastructure is in place to achieve the regional water conservation and reuse goals. By requiring that all the non-potable water system infrastructure be installed, there would be only minor construction impacts associated with start-up of the service once the sources are connected.

The non-potable water system would be sized to handle the designed future development of the area. With proper utilities master planning, the size of transmission and distribution pipelines and associated pumping stations could be established such that the system could serve the area at full build out. By installing the infrastructure required for the ultimate development, the impacts associated with inadequate system pressures in the future and construction of parallel or dual irrigation systems through a parcel could be avoided.

4.7.2.3 Cumulative Impacts

With no water being withdrawn from the caprock aquifer, no detrimental effects on the regional groundwater systems are foreseen. The non-potable water to be applied would be derived from non-aquifer water sources, and a long-term improvement in the caprock aquifer may be achieved as a result of the proposed irrigation in the reuse area. Decreasing the salinity in the caprock aquifer may also serve to preserve existing potable groundwater sources in the region.

Since the effluent to be used in irrigation would be treated to the highest quality standards established by DOH, pathogens entering the groundwater system should not be a problem. Also, the caprock is not a direct potable supply aquifer. Hence, applying the effluent to land overlying the caprock would dispose of the reclaimed water without having to apply it in areas directly overlying potable supply aquifers.

Based on the treatment capacity of DES's Honouliuli treatment plant, there would be an adequate supply of R-1 water for irrigation of the reuse area under all reuse alternatives. DES has identified areas for effluent to be applied but will need additional areas to comply with the terms of the consent decree.

Proper planning to acquire the non-potable supply from DES and to provide transmission facilities to meet the ultimate reuse area irrigation demand would mitigate the impact of using Honouliuli effluent. With the R-1 quality water requirements established, commitments for its acquisition and delivery to the area would be negotiated.

In the event development of a parcel designated for non-potable water irrigation does not move ahead as scheduled, the effluent can be applied and the land used as open space to maintain the commitment to DES for accepting effluent. Since most of the reuse area is undeveloped, irrigation of a parcel could be readily undertaken once the non-potable water infrastructure is in place. Limited demolition and no displacement of operations would be necessary to irrigate a parcel on an interim basis.

4.7.3 Wastewater

4.7.3.1 Significance Criteria

A wastewater generation rate exceeding the available Honouliuli WWTP capacity of 5 MGD (20,000 m³/d) available for the reuse area would be significant.

4.7.3.2 Potential Impacts and Mitigation

Methodology

Wastewater flows that to be generated under each of the reuse alternatives were estimated from DES's *Design Standards*. The flows were computed based on the number of residents, workers, students, or facility users estimated for each alternative in the socioeconomic analyses. Where an average daily wastewater generation rate was not provided in the *Standards*, the discharge flow was taken from Chapter 11-62, Wastewater Systems, of the Hawaii Administrative Rules.

The dry weather infiltration/inflow rate was added to the computed population flows to estimate the average daily discharge for land uses in each reuse alternative. Since the available topographic and manhole data indicated that most sewer lines are, and would likely be, above the ground-water table, a daily infiltration/inflow rate of 5 gallons (19 liters) per capita was used in the computations. With the significance criteria set as WWTP capacity, average daily flows rather than peak flows were computed for the analyses.

Assumptions

It was assumed that discharging to the Honouliuli WWTP was the only option available for wastewater treatment and disposal in the reuse area. The reuse area is currently within the WWTP's service area, and implementation of on-site treatment would not be cost-effective. Reverting to individual on-site wastewater disposal facilities is not allowed under DOH regulations.

The previous utility analyses implied that most of the existing sewer system could be used to serve the reuse area. The average daily flows estimated for the reuse alternatives were lower than those identified for the reuse scenarios in the *Naval Air Station Barbers Point Community Redevelopment Plan*. Thus, for the purpose of this evaluation, it was assumed that existing wastewater facilities, with modifications as discussed below, would be used in the future development. Peak wastewater flows for the various alternatives were not estimated since specific sewer line capacities were not assessed. During an interim period, reuse areas would need to use the Navy system to convey sewage to Honouliuli. The arrangements for payment of facility use will need to be coordinated between the LRA and Navy.

Potential Impacts

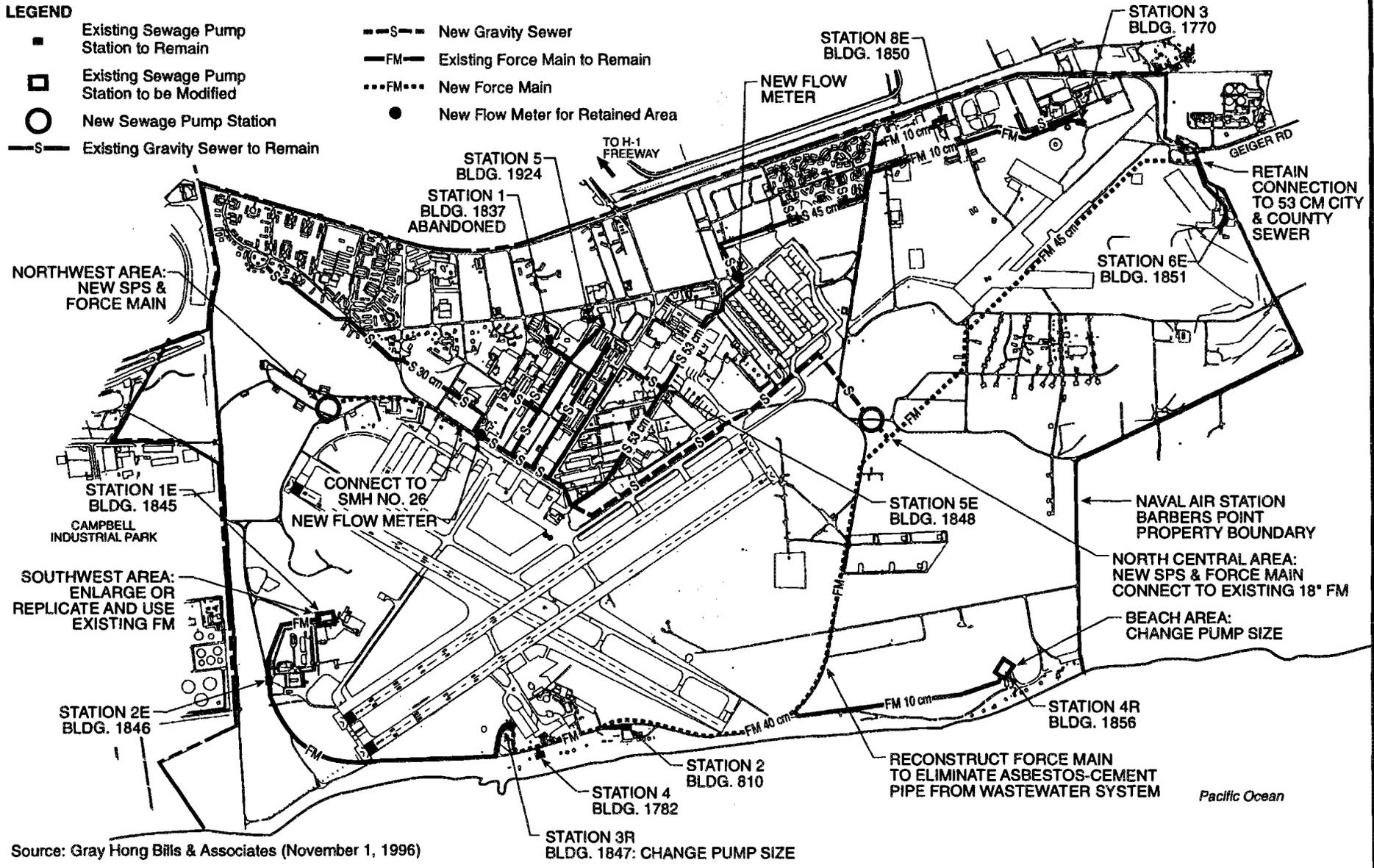
The computed wastewater generation rates under each of the reuse alternatives are as follows:

DEVELOPMENT CONDITION	ESTIMATED AVERAGE DAILY FLOW	
	MGD	(m ³ /d)
State-preferred Alternative	0.51	(2,040)
Large Airport Alternative	0.85	(3,400)
Small Airport Alternative	0.70	(2,800)
No Airport Alternative	0.67	(2,680)

Comparing the computed flows to the 5 MGD (20,000 m³/d) available for the reuse area, none of the proposed alternatives would have a significant effect on the regional or on-site wastewater facilities. The computed flows range from 10 to 17 percent of the available capacity.

Although there has been no agreement to turn over the existing sanitary sewer service to DES, service in the reuse area is likely to be through the existing on-site system. The sewer lines are in place within existing roadways. It would thus be cost effective to use the present system to the extent practical. It was noted in one of the previous utility studies that transfer of the existing system within the reuse area was technically and economically feasible. A general comparison of the existing system's construction to the DES standards concluded that the sewer lines generally conform to DES's criteria (Hawaii Pacific Engineers, February 27, 1998).

The wastewater facility assessment completed for the *Naval Air Station Barbers Point Community Redevelopment Plan* identified the various new or modified pumping facilities needed to implement the State-preferred alternative. Four facilities would be required: two new pump stations and two modified pump stations. These facilities are identified in Figure 4.7-1. The two new



0 300 600 1200

SCALE IN METERS

0 1200 2400 4800

SCALE IN FEET



NORTH

Figure 4.7-1
STATE-PREFERRED ALTERNATIVE
PROPOSED WASTEWATER FACILITIES

EIS for the Disposal and Reuse of
Naval Air Station Barbers Point, Hawaii

facilities would be located in the northwest and north central areas of the site to serve proposed new land uses. The modified facilities would be pump station 1E, which has a present capacity of only 0.04 MGD (160 m³/d), and pump Station 4R, with an existing capacity of 0.33 MGD (1,320 m³/d). The actual pump stations to be retained must be further evaluated based on the actual reuse parcel layouts.

Additionally, Navy personnel involved in utility system dedication review with DES noted two items of concerns: the gravity line beneath the runway and the asbestos cement force main from pump station 3R. To address DES's concern about the line beneath the runway, a new gravity line parallel to the north side of the runway could be installed connecting to the proposed new North Central Area pump station. Concerns about the force main could only be addressed through replacement. The new force main and pump station 3R would be sized based on the service area flows. The force main alignment would follow the new roadways through the reuse area. These wastewater facility improvements are also shown in Figure 4.7-1.

Mitigation

In view of the unallocated capacity at DES's Honouliuli WWTP, there is adequate treatment capacity for the redevelopment area under all of the land use alternatives. As such, no mitigative actions would be required. Both the retained and redevelopment areas could be served by the existing WWTP. During the interim period, the conveyance of sewage is an issue that needs to be coordinated between the DES, LRA, and Navy.

4.7.3.3 Cumulative Impacts

As noted in the water infrastructure analysis, releasing lands at NASBP will provide additional areas for development in the most intense region of growth on the island. Depending on the land use alternative, the reuse would generate from 0.33 to 0.67 MGD (1,320 to 2,680 m³/d) of additional wastewater compared to existing activities. While the projected flows are within Navy's purchased allocation and available capacity for the reuse area, conflicts with planned sewer line sizes based on previous regional master plans may need to be resolved.

The best means to address the potential conflicts with trunk sewer sizing and possible WWTP allocation restrictions is to coordinate with DES and submit a wastewater facilities master plan, as is currently being planned by DBEDT. Given the ultimate capacity of the WWTP and current flows, handling the additional flows from the NASBP area should not be a problem. The master plan, however, should address the regional treatment and transmission requirements, along with regional reuse area facility needs. The facilities assessment should include identification of new construction as well as improvements to existing facilities remaining in service.

4.7.4 Drainage

4.7.4.1 Significance Criteria

An increase of 10 percent or more over the existing storm water runoff quantities would be considered significant for the purposes of this assessment. This value was selected since it

approximates the accuracy of the figures used in the runoff computations. Also, it is anticipated that a drainage system would typically be designed with a 10 percent reserve capacity due to conservative design assumptions and, hence, a projected runoff quantity that exceeds the existing runoff quantity by 10 percent could potentially exceed the capacity of the existing storm drainage facilities.

4.7.4.2 Potential Impacts and Mitigation

Methodology

Reuse of NASBP would alter drainage patterns and the quantity of storm water runoff. Total runoff quantities would change due to a change in the types of ground surface resulting from development under base reuse. Another impact would be the possibility that new drainage structures and pipelines would have to be constructed to accommodate any increase in runoff.

Storm water runoff quantities were estimated using the DPW *Storm Drainage Standards*. Runoff quantities for areas 100 acres (40 hectares) or less were found using the Rational Method, for the 10-year 1-hour storm. Because areas served by dry wells can be treated as individual drainage basins, and dry wells or storm drain inlets are located throughout the site, the large open areas were analyzed as drainage basins of less than 100 acres (40 hectares).

Assumptions

For the purpose of the analysis, it was assumed that runoff flows from Navy-retained lands and areas of continued use, such as the airfield, would remain unchanged. Therefore, only areas of land use change were considered in the storm water runoff analyses.

For the initial phases of development, the existing storm water disposal facilities are assumed to continue in operation and their capacity or ability to accommodate flow from initial development phases would not significantly change. Over the long-term, site reuse and regulatory constraints may require replacement of existing facilities.

Given the condition precedent whereby off-site runoff is conveyed to the NASBP coral pit, it was also assumed that the pit would remain in service to handle upland storm water discharges. Under DPW policies, increasing off-site runoff, altering its location of discharge onto downstream properties, or blocking on-site runoff cannot be undertaken without agreement from the affected landowner.

Since the potential to discharge off-site runoff from the Kalo'i Gulch Drainage Basin through the Barbers Point area was presented in the *Naval Air Station Barbers Point Community Redevelopment Plan*, it is included in the alternative assessments.

Potential Impacts

The increase in total site runoff over existing conditions for the State-preferred and three other alternatives was computed by the Rational Method for the design storm. The results of the computations are summarized as follows:

DEVELOPMENT CONDITION	COMPUTED DISCHARGE		INCREASE OVER EXISTING CONDITIONS
	cfs	(m ³ /sec)	(%)
Existing - No Action Alternative	5,290	(159)	0
State-preferred Alternative	6,950	(209)	31
Large Airport Alternative	8,900	(267)	68
Small Airport Alternative	7,120	(214)	35
No Airport Alternative	5,730	(172)	8

The increase in runoff over existing conditions for all the alternatives would be due to the decrease in open grassed areas. Under existing conditions most of the base is undeveloped, with grassed areas predominating shoreward of the operational areas. Outside of the runways, there are no major hardstand tracts in the reuse area. Under the developed conditions, the grassed areas would be covered with impervious surface, preventing infiltration of storm water to the subsurface and thus increasing runoff.

Under all development alternatives, other than the No Airport Alternative, the increase in runoff would exceed the significance threshold of 10 percent additional runoff compared to existing conditions. The differences in the percent increase between the alternatives are associated with the proposed land uses. Under the Large Airport alternative, light industrial and residential land uses would be approximately equal to those identified for parks and open space; hence this alternative has the greatest percent increase. While park and open space land uses predominate the State-preferred and Small Airport alternatives, the continued use of the airfield with the added commercial and light industrial activities would result in an approximate one-third increase in runoff over existing conditions. The airfield uses would be discontinued under the No Airport alternative, which counters the proposed commercial and light industrial land uses, thereby leading to the least amount of additional runoff discharged.

Without increasing the number of dry wells or adding infiltration galleries or other drainage system improvements, the additional storm water runoff under all of the reuse alternatives would heighten localized ponding and possibly expand the flood zone limits. Runoff would collect in low spots and depressions, with the ponding depth increased over existing conditions. When the ponding reaches depths above the existing terrain, runoff would flow to lower-lying areas, which would eventually result in widening the A and AE flood zones along the shoreline (see Figure 3.1-1).

The primary use of coastal lands under all reuse alternatives would be for recreation. As such, the increased flood zone limits would not significantly restrict developments under any of the alternatives. The only facilities likely to be affected by the flood zones are roadways and airfield pavements in the eastern end of existing Taxiway K. A summary of the probable increase in the width of the flood limits based on the computed increased runoff flows follows:

DEVELOPMENT CONDITION	FLOOD ZONE WIDTH (distance inland from shore, inclusive of VE, AE and A zones)		Approximate Increase (%)
	Feet	(Meters)	
Existing - No Action Alternative	80 - 820	(24-246)	0
State-preferred Alternative	85 - 880	(25.5-264)	6-7.5
Large Airport Alternative	87 - 890	(26.1-267)	8-8.5
Small Airport Alternative	85 - 880	(25.5-264)	6-7.5
No Airport Alternative	80 - 820	(24-246)	0

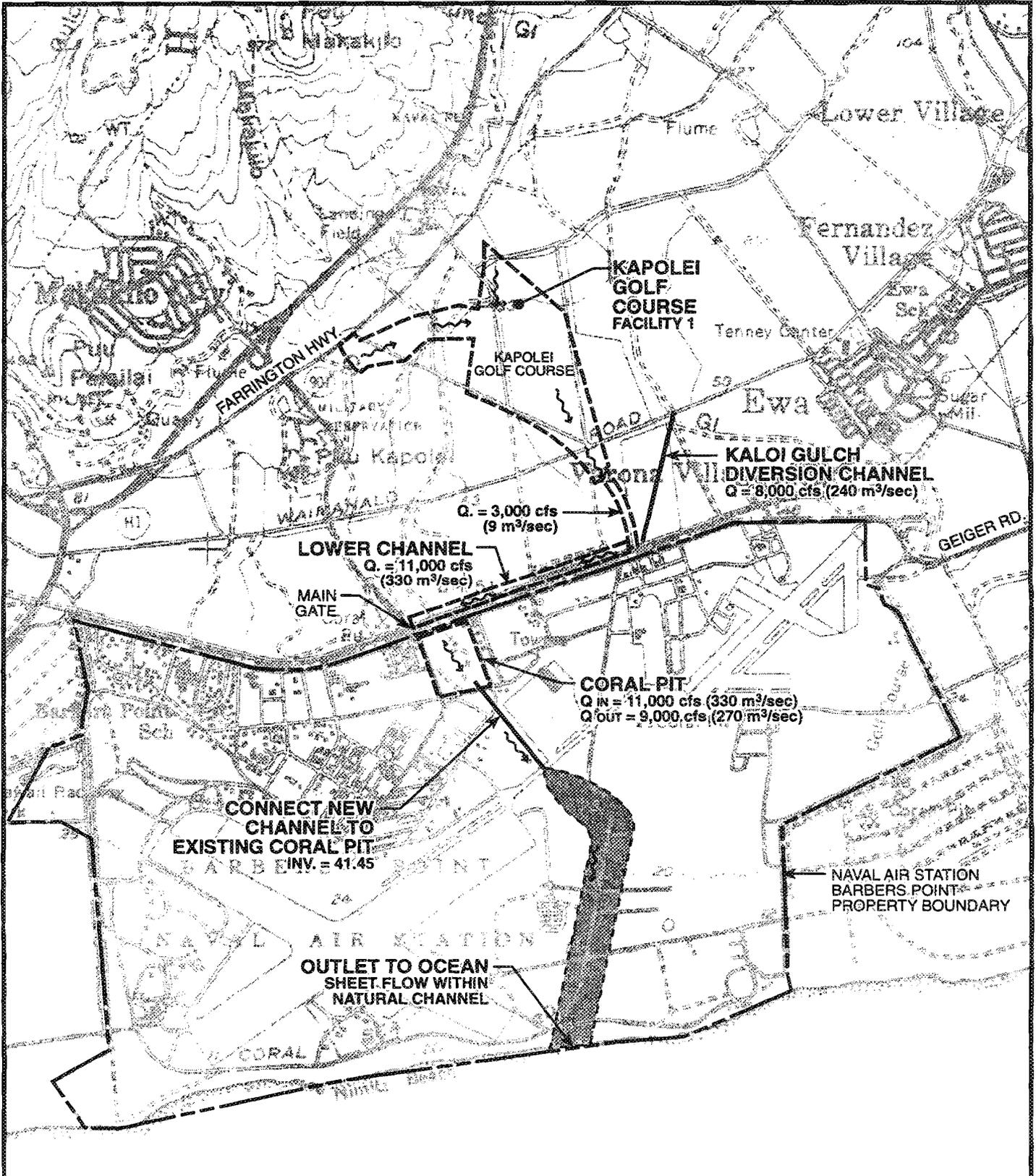
Based on the identified means of storm water disposal, long-term effects could occur on the recipient water bodies over time. Storm water runoff, while considered non-potable, is typically fresh water. The recipient water bodies, groundwater for the on-site disposal system options and coastal waters for the channelized drainage system, are sea water influenced. Therefore, the potential exists for changing the general character of the groundwater beneath the site and surface water in the coastal zone at the point of discharge for a drainage channel's ocean outlet.

Mitigation

Mitigation of the increased storm runoff following development would involve construction of on-site storm water disposal facilities, such as dry wells, infiltration galleries, and ponding basins, or provision of a drainage system to convey storm water to the ocean (Figure 4.7-2). Both types of drainage systems would be applicable to any of the reuse alternatives. Given the flat topography of the site, it is most likely that a combination of the two types of drainage systems would be employed to effectively handle additional storm runoff flows.

Under all of the reuse alternatives, the existing dry wells would remain in service to the extent possible. The new parcel owners would have to obtain the UIC permit from DOH, adding dry wells to the permit as appropriate to support the new developments. Depending on the parcel use, the permit requirements for the existing dry wells and the design of any new dry wells would have to be modified to assure protection of the groundwater. Such modifications could include more frequent sampling or analyzing samples for different parameters than under current conditions. Infiltration galleries, essentially horizontal dry wells with a length greater than the depth, could be used where permit requirements restrict the depth for inspection purposes and where deep excavations are undesirable.

In the case of park lands and other open-space developments, construction of dry wells may not be cost-effective. Dry wells are typically 6 to 8 feet (1.8 to 2.4 meters) in diameter, with an 8- to 20-foot (2.4- to 6-meter) depth and reinforced concrete rings to preclude collapsing of the side walls. A concrete slab with cast iron grate and frame are placed on top of the rings to provide a load-bearing surface with collection inlet. Installing such structures within recreational areas is typically not cost effective if low-lying play fields or other features are available for water storage and ponding.



Source of base map: USGS Topographic Map of the Island of Oahu (1970).

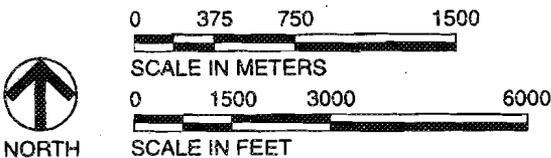


Figure 4.7-2
SCHEMATIC DIAGRAM OF KAPOLEI/KALO
GULCH DRAINAGE THROUGH BARBERS POINT

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

While the C&C of Honolulu Department of Public Works (DPW) does not prohibit use of dry wells for storm water disposal, their *Storm Drainage Standards* are predicated on collection and drainage to natural or man-made drainage ways. The existing storm drainage system dry wells cannot be dedicated to DPW. Any channels or ocean outlets would have to be constructed to DPW requirements in accordance with the *Storm Drainage Standards*. The DPW supports the concept of providing a drainage channel and ocean outfall to accommodate drainage from the NASBP lands and the upland areas.

4.7.4.3 Cumulative Impacts

Due to the delay in implementation of the Ewa Marina project, the concept of combining storm water flow from the Kaloι Gulch and Kapolei drainage basins has been proposed. Although conceptual analyses have determined that such a system could be constructed, no agreement or formal discussions among Navy, C&C of Honolulu, and affected Ewa developers and landowners regarding this issue have been undertaken (Helber Hastert & Fee, Planners, March 1997). The concept involves construction of a diversion channel from the Kaloι Gulch Basin, which would parallel Renton Road, crossing to the coral pit through a 400-foot (120-meter) wide, 12-foot (3.6 meter) deep box culvert. An outlet from the coral pit, consisting of concrete-lined and natural channels, would be constructed to the ocean. Figure 4.7-2 illustrates the alignment of the concrete-lined/natural channel that begins at the coral pit, northeast of the end of the existing Runways 22L and 22R, discharging to the ocean about 1,000 feet (300 meters) south of Coral Sea Road. The width and depth of this channel would vary depending on its lining and the drainage area served. An assessment of the channel options is presented as follows based on the configuration presented in the *Naval Air Station Barbers Point Community Redevelopment Plan*:

OFF-SITE DRAINAGE BASIN	ESTIMATED DISCHARGE		CONCRETE CHANNEL				GRASSED CHANNEL			
	cfs	(m ³ /sec)	width feet (m)	depth feet (m)	width feet (m)	depth feet (m)	width feet (m)	depth feet (m)		
Kapolei (Existing) (with coral pit)	1,000	(30)	16 (4.8)	5 (1.5)	300 (90)	5 (1.5)				
(without coral pit)	3,000	(90)	19 (5.7)	8 (2.4)	425 (128)	8 (2.4)				
Kaloι Gulch & Kapolei (with coral pit)	9,000	(270)	35 (10.5)	15 (4.5)	650 (195)	15 (4.5)				
(without coral pit)	11,000	(330)	43 (12.9)	15 (4.5)	800 (240)	15 (4.5)				

Diverting the Kaloι Gulch basin runoff onto the NASBP site would encumber 1.5 to 35.8 acres (0.6 to 14.3 hectares) for a drainage way through the central portion of the reuse area. Under the State-preferred, Large Airport, and Small Airport alternatives, the proposed channel alignment would be within the airfield property and park land.

The drainage channel would impact proposed commercial developments under the Large Airport and No Airport alternatives. To avoid the commercial area under the Large Airport alternative, the

channel would have to be aligned easterly of its proposed location. The location of the channel outlet, however, would have to be evaluated to avoid conflicts with the proposed beach center indicated in this area. Since the airfield is eliminated under the No Airport alternative, an optional channel alignment north of the existing runway could be used. This channel would be routed between land use parcels, discharging to the ocean at the end of Runway 11-29.

The benefit of the channel in the reuse area is that it provides a means of storm runoff disposal from on-site and retained lands, as well as the upland basins. With the construction of an outlet to the ocean and/or improvements to the storm water disposal system in the reuse area, storm drainage in the retained lands may be improved over existing conditions. Previous assessments indicated extensive areas of ponding in the existing enlisted personnel's housing area. With a drainage outlet provided from the coral pit, or with more disposal facilities downstream of the retention area, some of the existing flooding problems may be addressed.

Due to the flat topography of the NASBP site, however, a channel could serve only the areas adjacent to it. Depending on the depth of the channel, the service area would range from 1,000 to 2,000 feet (300 to 600 m) on either side of it. In this regard, the optional channel alignment identified for the No Airport alternative would serve more of the reuse area since its length through the site is greater than the one proposed along Coral Sea Road.

The implications of accepting off-site runoff through the reuse area would be significant and would involve restricting land use and potential loss of areas to residential, commercial, and light industrial development within the site. Increasing the off-site storm water runoff flows through the site would also involve land retained by Navy, restricting development and exposing Navy to liability from upstream contaminants conveyed in the storm water onto their property.

The impact of eliminating the existing coral pit for storm water retention would be significant, since the storm water flow to be conveyed through the site would increase almost 25 percent. Eliminating the coral pit was not discussed in the *Naval Air Station Barbers Point Community Redevelopment Plan*. Discontinuing use of the pit as part of the regional storm drainage system would open up the approximate 35-acre (14-hectare) pit area for other development within Navy-retained land. Meeting adjacent existing grades around the coral pit would, however, require about 1.2 million cubic yards (1 million m³) of fill.

While increasing the runoff discharge from off-site drainage basins to the coral pit may have disadvantages to Navy and reuse areas, it would be beneficial to development of Ewa Villages, East Kapolei, and upland areas of Kaloi Gulch. The redirection of runoff flows from the Kaloi Gulch basin onto NASBP would address regional drainage concerns identified by DPW and would open up Kaloi and Kapolei lands for future development.

Mitigation of the impacts associated with conveyance of regional storm water runoff through the reuse site could be addressed by not redirecting the 11,000 cfs (330 m³/sec) from the Kaloi Gulch Basin to the coral pit. Runoff from the basin would continue to flow down-slope to the Ewa Marina area, following its natural drainage pattern.

Mitigation of the coastal zone impacts would have to be addressed during the design and environmental analyses for construction of the storm drainage ocean outlet. Ecological and ocean

current studies would be needed to identify probable effects of the outlet and required mitigation measures.

The rerouting of the off-site drainage must also be reviewed by Navy. While conveyance of storm runoff from the areas directly upland of Navy land needs to continue because existing flows cannot be blocked, there is no requirement for Navy to retain the existing coral pit as part of the storm drainage system. Nor is there a requirement for Navy to accept additional flows as proposed by DPW. The pit could be filled with a channel or other storm drainage facility provided to accept off-site runoff and convey the flows to another detention area. The drainage system improvements made in the reuse area thus need to be coordinated with the decisions of Navy relative to retaining the coral pit as part of the regional storm drainage system and acceptance of runoff from Kaloi Gulch. Hence, regional drainage is an unresolved issue that will require further studies and input from Navy and all affected parties.

4.7.5 Electricity

4.7.5.1 Significance Criteria

A power demand exceeding the planned island-wide electrical system capacity of 2,039 MW projected for the year 2017 would be considered significant. The year 2017 has been used because it represents a point in time at which both full development could occur and island-wide capacity is provided in the *Integrated Resources Plan* (HECO, Inc., January 1998).

4.7.5.2 Potential Impacts and Mitigation

Methodology

Power demands for the various alternatives were computed based on the identified probable building areas and applying the associated watts per square foot listed in *Facility Planning Criteria for Navy and Marine Corps Shore Installations, NAVFAC P-80*. For the purpose of computing the MVA from the computed watts, a power factor of 0.9 was applied. This factor is typical for mixed industrial and residential land use of urban type areas.

Assumptions

Since HECO is the only local power authority on-island, it was taken to be the only viable entity to assume ownership of the existing power distribution system in the reuse area. As such, the costs for system upgrading and improvement would be based on meeting HECO's requirements and standards. The street light system would eventually be owned by the C&C of Honolulu DTS or the State DOT.

Potential Impacts

The projected power demand for the reuse alternatives would be as follows:

DEVELOPMENT CONDITION	YEAR 2017				
	Power Demand of Reuse (MW)	Power Demand of Island (MW)*	Total Power Demand (MW)	Island- wide Capacity (MW)*	Does Total Power Demand Exceed Island-wide Capacity?
State-preferred Alternative	32.8 (36.4 MVA)	1,592	1,625	2,039	NO
Large Airport Alternative	68.6 (76.2 MVA)	1,592	1,661	2,039	NO
Small Airport Alternative	51.3 (57.0 MVA)	1,592	1,643	2,039	NO
No Airport Alternative	36.1 (40.1 MVA)	1,592	1,628	2,039	NO

*HECO Inc., 1998.

The demands for all alternatives are greater than the capacity of the existing on-site system (25 MVA). However, the island-wide power grid can accommodate the anticipated increase in electrical demands associated with reuse as the total power demand under all reuse alternatives does not exceed the projected island-wide capacity. To mitigate the potential impacts resulting from the anticipated electrical demands of reuse and from the insufficient existing electrical distribution system, on-site electrical system modifications would be needed. The new electrical system owner would be responsible for upgrading and maintaining the on-site system to meet the anticipated demand. The coordinated efforts of HECO, Navy, and LRA can result in plans and implementation measures to provide an electrical distribution system sufficient to support the reuse area.

Mitigation

The items identified in the *Naval Air Station Barbers Point Community Redevelopment Plan* as requiring changes to meet HECO requirements are summarized as follows:

- **Changing presently shared manholes.** The existing underground distribution system has electric, telephone, and cable television using common manholes. The State Public Utilities Commission (PUC) does not permit shared manholes and HECO would have to obtain a waiver if they were to acquire the existing system (PUC General Order 10, February 18, 1968).
- **Providing direct building services.** Service to many buildings is unmetered. Also, some facilities are served by an extension from an existing structure rather than having a direct service connection from the electrical distribution network. In the event such existing facilities would be reused following property transfer, direct metered service would need to be installed to each building.

- **The existing overhead poles are owned by Navy.** Poles on Oahu are generally controlled by a joint pole committee which allows use of poles for electrical, telephone, cable television, and street light service. The disposition of poles in the reuse area needs to be resolved.
- **Environmental issues.** HECO will require that all PCB-containing substations and transformers, and asbestos-containing ducts, be identified. Cleanup of PCB contamination is being conducted by Navy.

Given the magnitude of the changes, the conceptual nature of the reuse plans, and the fact that HECO generally absorbs the expense of upgrading the main electrical system infrastructure, no cost estimates for electrical system improvements were completed for the *Naval Air Station Barbers Point Community Redevelopment Plan*. HECO undertakes the main system upgrades, such as new substations, while the landowner provides the substation site at no cost. The landowner would also be responsible for installation of meter sockets, duct lines, and other service extension costs as required by tariff, which would be a parcel-specific development cost. HECO would also require electrical system easements for lines and facilities outside their land ownership or the new rights-of-way. Based on statements made in the *Naval Air Station Barbers Point Community Redevelopment Plan*, HECO is prepared to assume ownership of the existing electrical system and also plans to complete the required system upgrades under a phased program.

It was also stated in the redevelopment plan that HECO made a privatization proposal to Navy to assume ownership of the electrical system in the retained area as well as in the reuse area. Under this proposal, HECO would acquire the existing substations, distribution lines, poles, and other electrical facilities throughout the existing base. Navy would then install meters for system separation and billing, grant utility easements, and pay HECO for electrical service to facilities in the retained area.

Transfer of the electrical system within the retained and reuse areas has not yet been defined. Both HECO and Navy are open to reviewing the transfer alternatives and phasing of ownership for the existing electrical facilities. The key issues to be resolved are the costs to be incurred in the transfer and the subsequent user rates to Navy.

4.7.5.3 Cumulative Impacts

The additional power needed to support the reuse areas and other future developments would be obtained from the island-wide electrical grid system. These cumulative impacts are not considered significant because these power demands would be considered in long-term power supply plans, similar to other development projects on the island.

4.7.6 Solid Waste

4.7.6.1 Significance Criteria

An average MSW generation rate of five percent or more over the 1991 figures would be considered significant for the purpose of this assessment (1991 figures were used in lieu of 1993 figures, which were unavailable). The 5 percent figure was considered as the factor by which the

MSW tonnage could vary for an Oahu community based on recycling markets and changes in population lifestyle and disposal habits. A greater increase may result in increased collection and disposal costs, as well as reduce landfill life. The uncertainties inherent in projecting waste tonnages, and the effects of variables such as composition of the additional MSW, counter an increase of less than 5 percent.

Since a considerable amount of site demolition and new construction is anticipated with the redevelopment activities, the volume of this type of waste material generated was also considered. There is only one permitted landfill on Oahu for clearing, grubbing, construction and demolition waste, which has the capability to handle at least 400,000 cubic yards (320,000 m³) annually. A waste generation rate greater than 10 percent of this volume would be considered significant because it could impact the facility's normal operating procedures (e.g., the landfill facility may not be able to handle the rate of incoming loads of waste into the landfill and may have to extend its operating hours to accommodate the additional waste).

4.7.6.2 Potential Impacts and Mitigation

Methodology

Solid waste generation under each reuse area alternative was estimated by applying rates for each type of land use to the projected number of residents or uses. The number of residents or uses was as projected in the socioeconomic analysis for each alternative. The waste generation rate for residential land uses was based on the most recent DPW solid waste planning study (C&C of Honolulu, March 1995). Generation rates for non-residential land use were taken from published textbook figures developed from U.S. EPA data (Tchobanoglous, 1997). The textbook rates were then increased by 20 percent to adjust for current local conditions as determined in DPW's study. Construction related impacts were estimated based on proposed land use changes, such as demolition of airfield pavements to create park lands.

Assumptions

It was assumed that the current method of commercial contractor hauling and disposal would be continued following site reuse. While DPW may service new residential areas, in general, the MSW collection, hauling and disposal procedures would remain the same in the future. Establishing a new solid waste disposal facility on site was not considered a viable option based on the DOH requirements and proximity of existing licensed disposal facilities. Also, given the proximity of the site to H-POWER and Waimanalo Gulch Landfill, it was also assumed that no transfer station would be required.

For estimating the annual volume of clearing, grubbing, construction and demolition waste, it was considered that all work would occur over a 10-year period. While the schedule in the *Naval Air Station Barbers Point Community Redevelopment Plan* was about double this duration, using 10 years allowed for clearing and demolition activity to take place in early stages to meet possible development opportunities as they arise.

Potential Impacts

Based on the identified unit generation rates, the estimated daily average solid waste tonnages for each of the alternative reuse concepts are as follows:

DEVELOPMENT CONDITION	ESTIMATED AVERAGE SOLID WASTE GENERATION	
	TPD	(Metric TPD)
State-preferred Alternative	11.6	10.5
Large Airport Alternative	21.8	19.8
Small Airport Alternative	17.3	15.7
No Airport Alternative	14.9	13.5

None of the proposed alternatives are anticipated to generate more solid waste tonnage than the 1991 levels for NASBP. As such, none of the proposed reuse alternatives would have a significant impact on local or regional solid waste facilities. Under the No Action alternative, use of the base would decrease, so there would be a corresponding decrease in waste generation.

Construction Impacts. Developing the NASBP site for alternative uses would require construction activities. Potential impacts are discussed relative to their effects on solid waste disposal facilities. Given the present nature of the site, most of these activities would involve clearing and grubbing to strip away vegetation and provide a suitable building site. Construction in some areas would also require razing of existing buildings and demolition of structures. These activities would generate waste materials which would need to be disposed of at a licensed construction and demolition material landfill. The estimated volume of such materials is as follows:

DEVELOPMENT CONDITION	ESTIMATED CLEARING & GRUBBING AND DEMOLITION WASTES					
	Clear/Grub Debris		Demolition Waste		Total Annual	
	Cubic Yards	m ³	Cubic Yards	m ³	Cubic Yards	m ³
State-preferred Alternative	838,000	670,400	89,000	71,200	92,700	74,160
Large Airport Alternative	838,000	670,400	89,000	71,200	92,700	74,160
Small Airport Alternative	910,000	728,000	110,000	88,000	102,000	81,600
No Airport Alternative	910,000	728,000	250,000	200,000	116,000	92,800

Since the land disturbed for the State-preferred and Large Airport alternatives would be approximately the same, the volumes of waste generated in site development would be comparable. Under the Small Airport alternative, the western portion of the existing airfield is

proposed to be removed, thereby accounting for the higher volumes of waste generated. With the airport completely discontinued in the No Airport alternative, the most clearing and demolition wastes would be generated under this land use plan. None of the alternatives, however, would have a significant impact on the available solid waste disposal facility.

Mitigation

None of the proposed alternatives are anticipated to exceed a solid waste generation rate of five percent or more over the 1991 rate, and construction debris would not significantly displace capacity of solid waste disposal facilities.

Recycling could be undertaken with the site development wastes to reduce the ultimate volume requiring landfilling. Given the nature of the clearing, grubbing, construction and demolition waste materials, disposal at H-POWER for energy recovery would not be practical.

It is estimated that with processing and screening, about half of the clearing and grubbing wastes could be reused as topsoil in the new parks and landscape area. Soil amendments would need to be added, but the processing of the stripped surface soil layer for new facility construction could mitigate a substantial volume of the clearing waste generated.

Similarly, the Portland cement concrete and asphalt cement debris generated in the razing of existing buildings and pavement demolition could be reclaimed for reuse. The State DOT allows use of roadway base course that is made from processed reclaimed paving materials. Removal of ferrous metals, including concrete reinforcing, is practiced by demolition contractors and the licensed operators of the construction and demolition landfill. Therefore, most of the demolition wastes resulting from implementation of the alternative land uses could be used in new construction either on-site or elsewhere in the region. No significant impacts on solid waste disposal are expected because the construction and demolition materials generated over the 20-year development period would not significantly displace capacity at solid waste disposal facilities, and recycling and reuse of construction and demolition materials would minimize disposal volumes.

4.7.6.3 Cumulative Impacts

The proposed reuse would have no significant impacts on the regional MSW or other disposal facilities. The projected solid waste tonnages generated from activities under the proposed alternatives would be less than those for the previous intense on-site land uses with the same disposal destination. Since the tonnages would be less, traffic volumes associated with waste hauling would also be lower than experienced in the past.

4.7.7 Communications

4.7.7.1 Significance Criteria

An action would result in a significant impact on communication systems if it uses a substantial proportion of the remaining system capacity, reaches or exceeds current system capacity, or requires development of new facilities not currently planned.

4.7.7.2 Potential Impacts and Mitigation

No significant impacts are anticipated from the reuse alternatives, as communication systems (telephone and cable television) can be developed to meet the needs of the reuse areas.

4.7.7.3 Cumulative Impacts

There are no significant cumulative impacts associated with communication systems (telephone and cable television).

CHAPTER FIVE

ENVIRONMENTAL CONSEQUENCES—OTHER CONSIDERATIONS

5.1 IRRETRIEVABLE/IRREVERSIBLE COMMITMENT OF RESOURCES

With development of the reuse areas, the land would essentially be unavailable for other purposes. Irreversible and irretrievable resources would be committed by the LRA and other entities charged with reuse of the surplus property. In addition to construction materials, along with the electricity required to support construction and long-term activities in the reuse areas, water (particularly nonpotable water to irrigate large expanses of park and landscaping envisioned in the various alternatives) is a critical resource that would be required. Development of park lands would also require substantial volumes of topsoil. Clearing would involve loss of existing vegetation, to be partially replaced by landscaping, but no endangered or threatened species would be lost. Reuse may involve irreversible alterations to cultural resources, but the treatment of significant resources would be determined in consultation with SHPO.

5.2 ENERGY REQUIREMENTS AND CONSERVATION POTENTIAL

Energy consumption would be required in the short term for the demolition and construction associated with the reuse alternatives. Following complete buildout, electrical demands would increase. Annual electrical demands for reuse alternatives would be greater than the existing capacity. A phased program of main system upgrades would, therefore, be required.

Demolition of nonreusable buildings and renovation of older buildings scheduled for reuse would result in greater energy efficiency. New and retrofitted buildings would be constructed with energy efficient systems, such as improved air conditioning systems.

None of the activities associated with the proposed reuse alternatives would generate more solid waste than 1991 NASBP activities. In addition, construction and demolition debris would be generated, but would be recycled and reused to the maximum extent practicable. Clearing and grubbing waste could be reused as topsoil in new parks. Concrete and asphalt debris generated in demolition of existing buildings and pavement could be reclaimed for reuse in new construction on-site or elsewhere. Selected solid waste could also be disposed of at composting facilities.

5.3 RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

In the short term, use of surplus land at NASBP would be constrained by construction activities. However, development of the reuse areas would enhance the long-term productivity of the site by providing lands for many uses for which there are recognized needs, such as a general aviation

reliever airport, parks, housing, and commercial activities. If the No Action alternative is selected, surplus property would be unused and unproductive.

5.4 UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

With the exception of traffic associated with special events, other impacts could be either avoided or mitigated to a level that would be considered not significant.

5.5 COMPLIANCE WITH FAA ORDER 5050.4A

This FEIS has been written to comply with FAA Order 5050.4A, *Airport Environmental Handbook*, in addition to the requirements identified in Section 1.1. This section is included as an aid to those who need to review the contents of this document in the format designated in FAA Order 5050.4A.

Noise analysis. See Section 4.1.5.

Compatible land use. See Sections 4.1.5, 4.4.3 and 5.6.1.

Land use and urban growth. See Sections 4.7 and 5.6.1.

Design, art, and architectural applications. See Section 5.6.1.

Social impact analysis. See Section 4.6.

Secondary (induced) analysis. See Section 4.6.

Air quality. See Sections 4.1.4 and 5.6.5.

Water quality. See Sections 4.1.2, 4.1.3, and 5.6.2.

DOT Act, Section 4(f). See Section 5.6.10.

Historic, architectural, archaeological, and cultural resources. See Sections 4.3 and 5.6.6.

Wildlife and waterfowl. See Section 4.2.

Endangered and threatened species of fauna and flora. See Sections 4.2, 5.6.3, and 5.6.4.

Wetlands. See Sections 4.1.3, 4.2.2.4, and 5.6.2.

Floodplain management. See Section 5.6.7.

Coastal Zone Management. See Section 5.6.9.

Wild and scenic rivers. There are no wild and scenic rivers in the state of Hawaii.

Farmlands. The Farmland Protection Policy Act is not applicable; there is no farmland on the site.

Coastal barriers. The Coastal Barriers Resources Act applies only to undeveloped coastal areas along the Atlantic and Gulf Coasts and therefore is not applicable at NASBP.

Energy analysis; energy supply and natural resources. See Sections 4.7.5 and 5.2.

Light emissions. Operational light emissions associated with proposed facilities would not have a significant impact on neighboring land uses. Under the alternatives that retain airport use, the existing runway lights would be retained on Runways 4L-22R, 4R-22L and 11-29. Existing taxiway lighting would be retained on all existing taxiways. Lighting would be installed on new taxiways and would replace existing taxiway reflectors on Taxiway K. The existing airport beacon would be converted to a single beam to identify the civilian airport. Surrounding parking areas would have area pole lighting.

Solid waste impact. See Section 4.7.6.

Construction impacts. See Sections 4.1.1.2, 4.1.3.2, 4.1.4.1, 4.1.5.2, 4.3.2, and 4.7.6.3.

Visual impacts. See Section 4.1.6.

Considerations relating to pedestrians and bicyclists. This issue would be addressed in the more detailed planning to be conducted by the LRA, subsequent landowners, and/or developers. The EIS analysis is at a general land use planning level only.

5.6 CONSISTENCY WITH LAND USE PLANS, POLICIES AND CONTROLS

5.6.1 Local Land Use Plans/Zoning Restrictions

5.6.1.1 City and County of Honolulu General Plan

The *General Plan* establishes the long-range objectives and policies for the C&C of Honolulu. This section indicates whether reuse alternatives conform to General Plan policies that apply to NASBP.

All alternatives except No Action are generally consistent with *General Plan* policies regarding recreation and employment. In particular, the provisions for regional parks and industrial space at NASBP support the development of Kapolei as a Second City, and the proposed developments, e.g., motor sports raceway complex and international sports center, would host events involving and attracting visitors. The No Airport alternative, however, is not consistent with three *General Plan* policies: (1) develop separate aviation facilities for small civilian aircraft, (2) provide adequate disaster response services for the Island of Oahu, and (3) support airport safety by relieving congestion at HIA. Because the airport at NASBP is the only site currently available to relieve congestion at HIA for small civilian aircraft and its disaster relief operations, eliminating it would fail to provide either service. Therefore, the No Airport alternative fails to meet those requirements of the *General Plan*.

It is not possible to determine at this time whether *General Plan* policies on population density, the character of development, and other issues associated with detailed planning would be met by

reuse plans for NASBP. The C&C of Honolulu would be responsible for assuring that future housing densities, building heights, landscaping, infrastructure improvements, public transportation, and commercial or commercial/recreation uses meet the requirements of the *General Plan*.

Table 5.6-1 summarizes the applicable *General Plan* policies and identifies which alternatives are consistent with those policies.

**Table 5.6-1
Applicable General Plan and Policies and Consistency Determinations**

General Plan Policy	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action Alternative
Culture and Recreation					
• Establish and maintain a system of regional parks and specialized recreation facilities.	Yes	Yes	Yes	Yes	No
• Encourage the State to develop and maintain a system of natural resource-based parks, such as beach, shoreline, and mountain parks.	Yes	Yes	Yes	Yes	No
• Encourage ocean and water-oriented recreation activities that do not adversely impact on the natural environment.	Yes	Yes	Yes	Yes	No
• Identify, and to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.	Yes	Yes	Yes	Yes	No
Population					
• Encourage development within the secondary urban center at Kapolei.	Yes	Yes	Yes	Yes	No
• Meet housing needs not readily provided in the primary urban center by developing homeless and affordable housing.	Yes	Yes	Yes	Yes	No

Table 5.6-1 (continued):

General Plan Policy	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action Alternative
Economic					
<ul style="list-style-type: none"> Encourage the visitor industry to provide a high level of service to visitors. 	Yes	Yes	Yes	Yes	No
Housing					
<ul style="list-style-type: none"> Encourage the production and maintenance of affordable rental housing. 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> Encourage residential development near employment centers. <p><u>Note:</u> Opportunities for housing are not fully met in the No Airport alternative, where more land is available for non-airport use.</p>	Yes	Yes	Yes	Yes	No
Transportation and Utilities					
<ul style="list-style-type: none"> Encourage the provision of separate aviation facilities for small civilian aircraft. 	Yes	Yes	Yes	No	No
Physical Development and Urban Design					
<ul style="list-style-type: none"> Support the development of a secondary urban center in Ewa (including providing regional park space for nearby residential or resort developments). 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> Encourage the continuing development of NASBP as a major industrial center. 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> Maintain beneficial open space in urbanized areas. 	Yes	Yes	Yes	Yes	No

Table 5.6-1 (continued):

General Plan Policy	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action Alternative
Physical Development and Urban Design (continued):					
<ul style="list-style-type: none"> Locate housing parcels next to Campbell Industrial Park. (This may be inconsistent with policies requiring the establishment of danger zones that exclude incompatible uses from hazardous areas surrounding airports or storage places for fuel and explosives.) 	No	No	No	Yes	Yes
<ul style="list-style-type: none"> Consider urban design principles in development projects. (Urban design information is not included in the reuse plan.) 	TBD ¹	TBD	TBD	TBD	TBD
Public Safety					
<ul style="list-style-type: none"> Support the provision of search, rescue, and disaster response services. Support airport safety by relieving congestion at Honolulu International Airport. 	Yes	Yes	Yes	No	No

¹ TBD = To Be Determined

5.6.1.2 Ewa Development Plan

NASBP is designated as a Special Area, and its development would be guided by a Special Area Plan that should be consistent with the general policies, planning principles, and guidelines established in the *Ewa Development Plan* by the C&C of Honolulu. The Special Area Plan for NASBP is the *Naval Air Station Barbers Point Community Redevelopment Plan* (Helber Hastert & Fee, Planners, March 1997), and two key elements of the State-preferred, Large Airport, Small Airport, and No Airport alternative are generally consistent with the *Ewa Development Plan*:

- Creation of an Open Space Network, including a continuous Shoreline Park along the Ewa coastline. The development of Kalaehoa Regional Park at NASBP as well as a public easement/access along the shoreline is designed to provide open space, recreational opportunities, and access to the beaches and ocean for the entire region. It is envisioned as a major nucleus of both community and economic activity.
- Development of the Secondary Urban Center. Developments at NASBP should support the creation of Kapolei as a Secondary Urban Center by supporting regional housing, industrial, employment, and resort destination goals for the Ewa area.

In the *Ewa Development Plan*, the open space network is located along the eastern edge of NASBP. By locating both light industrial and residential uses in that area, the Large Airport alternative is less consistent with the Development Plan than other alternatives. Also, it is not clear whether commercial/recreation parcels located within the planned open space network in the State-preferred, Small Airport, and No Airport alternatives would be consistent with the concept of an open space network. In general, the No Action alternative does not conform to the two primary components of *Ewa Development Plan* for NASBP.

The Development Plan contains key policies regarding the installation of adequate infrastructure and the incorporation of urban design principles into new developments. Adequate information is not currently available to determine whether developments at NASBP will or will not conform to those Development Plan policies.

Table 5.6-2 summarizes the applicable *Ewa Development Plan* policies and identifies which alternatives are consistent with those policies.

**Table 5.6-2
Applicable Ewa Development Plan Policies and Consistency Determinations**

Ewa Development Plan Policy	Consistent with Ewa Development Plan?				
	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action Alternative
Coastal Environment					
<ul style="list-style-type: none"> A shoreline access easement should connect easements at the NASBP Industrial Area to public pedestrian pathways at Ewa Marina. 	TBD ¹	TBD	TBD	TBD	TBD
<ul style="list-style-type: none"> The panoramic view along the shoreline at NASBP is a significant vista which should be retained. 	Yes	Yes	Yes	Yes	Yes
Circulation System and Transportation Facilities					
<ul style="list-style-type: none"> The road network should be integrated with the regional circulation system. 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> The circulation design should include major roadways connecting the City of Kapolei (Kapolei Parkway) to the shoreline recreation center and Ewa Marina. 	Yes	Yes	Yes	Yes	No

Table 5.6-2 (continued):

Ewa Development Plan Policy	Consistent with Ewa Development Plan?				
	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action Alternative
Circulation System and Transportation Facilities (continued):					
<ul style="list-style-type: none"> Develop a roadway linking the western part of Ewa Marina and a road within the eastern boundary of NASBP which connects to Geiger Road. 	Yes	Yes	Yes	Yes	No
<p><u>Airport note:</u> The development of an airport at NASBP is included in the Public Facilities Map for Ewa and mentioned as an important employment source but is not otherwise featured in the Development Plan.</p>	Yes	Yes	Yes	No	No
Drainage Systems					
<ul style="list-style-type: none"> Expand the channel at the western edge of NASBP to provide additional capacity for the City of Kapolei. <p>Note: Other drainage systems are being defined.</p>	No	No	No	No	No
Employment Center					
<ul style="list-style-type: none"> There should be ample lands devoted to uses that will create long term jobs for Ewa's residents. 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> NASBP is part of the Barbers Point Industrial Area, and NASBP lands designated for industrial use should provide for light industrial uses as a transition between heavy industry at Campbell Industrial Park and the City of Kapolei. 	Yes	Yes	Yes	Yes	No

Table 5.6-2 (continued):

Ewa Development Plan Policy	Consistent with Ewa Development Plan?				
	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action Alternative
Parks					
<ul style="list-style-type: none"> Development of a major new regional park (along the eastern edge of NASBP) that provides beach-oriented recreation near the shoreline and active recreation facilities in mountainside areas. 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> The park should preserve wildlife habitats such as wetlands and endangered plant colonies. 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> The new Kalaheo Regional Park at NASBP will feature a large shoreline park with beach recreation and support facilities and provision of continuous lateral public access along the shoreline. The entire shoreline of the NASBP should be reserved for public access and recreation after military use of NASBP ceases. 	Yes	Yes	Yes	Yes	No
<ul style="list-style-type: none"> Provide active recreation facilities in <i>mauka</i> areas. 	Yes	No	Yes	Yes	No
Regional Growth Patterns					
<ul style="list-style-type: none"> Conversion of the base to civilian use should be used as an opportunity to integrate the circulation system and land use pattern of the Ewa Plan. 	Yes	Yes	Yes	Yes	No

Table 5.6-2 (continued):

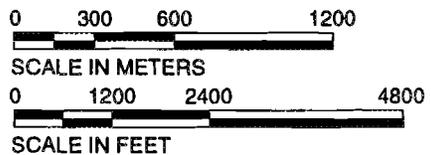
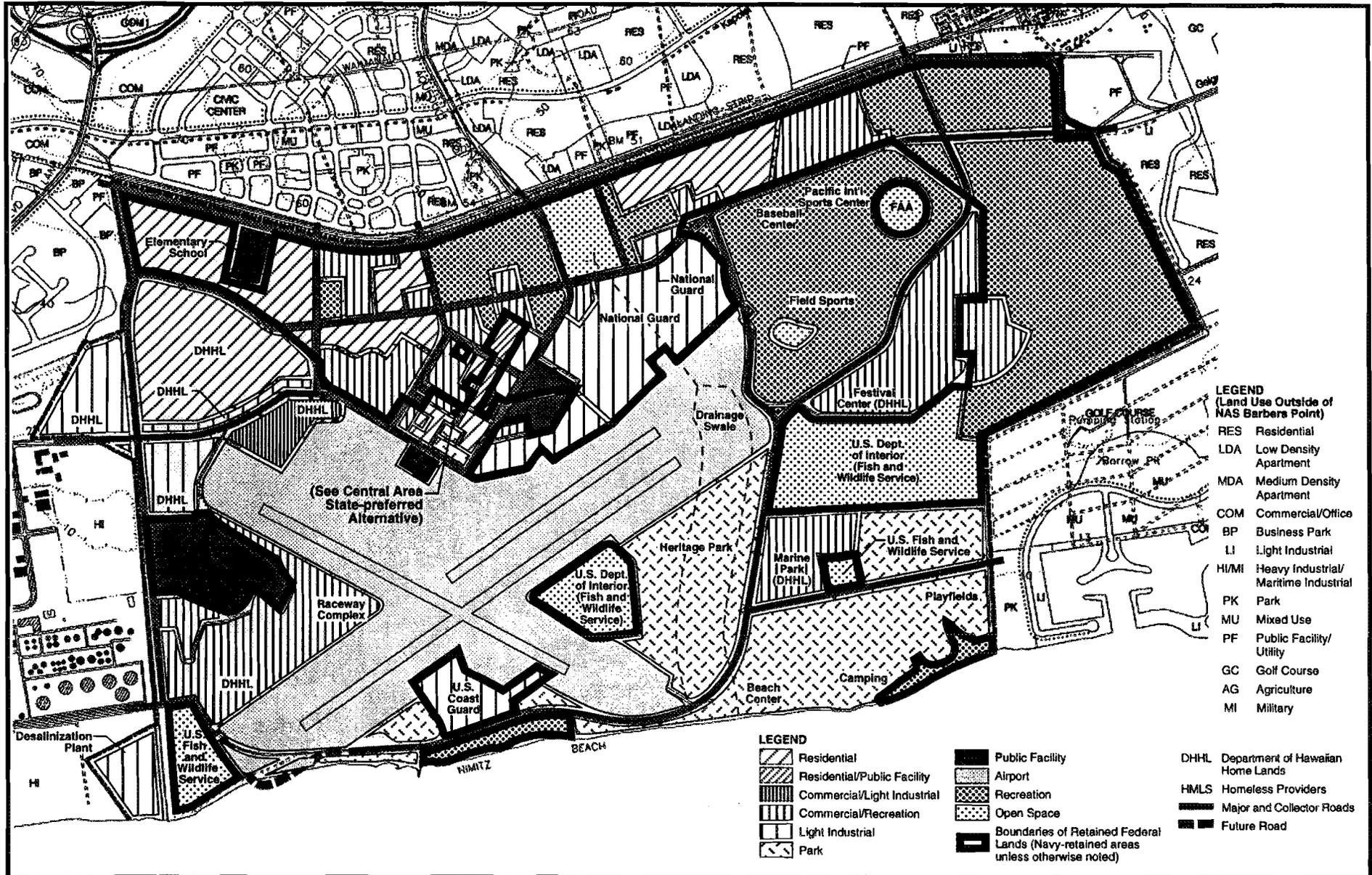
Ewa Development Plan Policy	Consistent with Ewa Development Plan?				
	State-preferred Alternative	Large Airport Alternative	Small Airport Alternative	No Airport Alternative	No Action Alternative
Regional Growth Patterns (continued):					
<ul style="list-style-type: none"> Military support housing, airport/industrial facilities, and recreation/wildlife areas should be separated and distinguished from one another through the design of the road pattern and the use of landscape buffers. <i>Note:</i> All alternatives meet this requirement in some areas, but landscape buffers and roadway patterns do not always separate residential and light industrial uses. 	No	No	No	No	Yes
Urban Design Principles					
<ul style="list-style-type: none"> Creation of an Open Space Network; and Protection of scenic views. 	Yes	Yes	Yes	Yes	No

¹ TBD = To Be Determined

5.6.1.3 NAS Barbers Point Master Plan

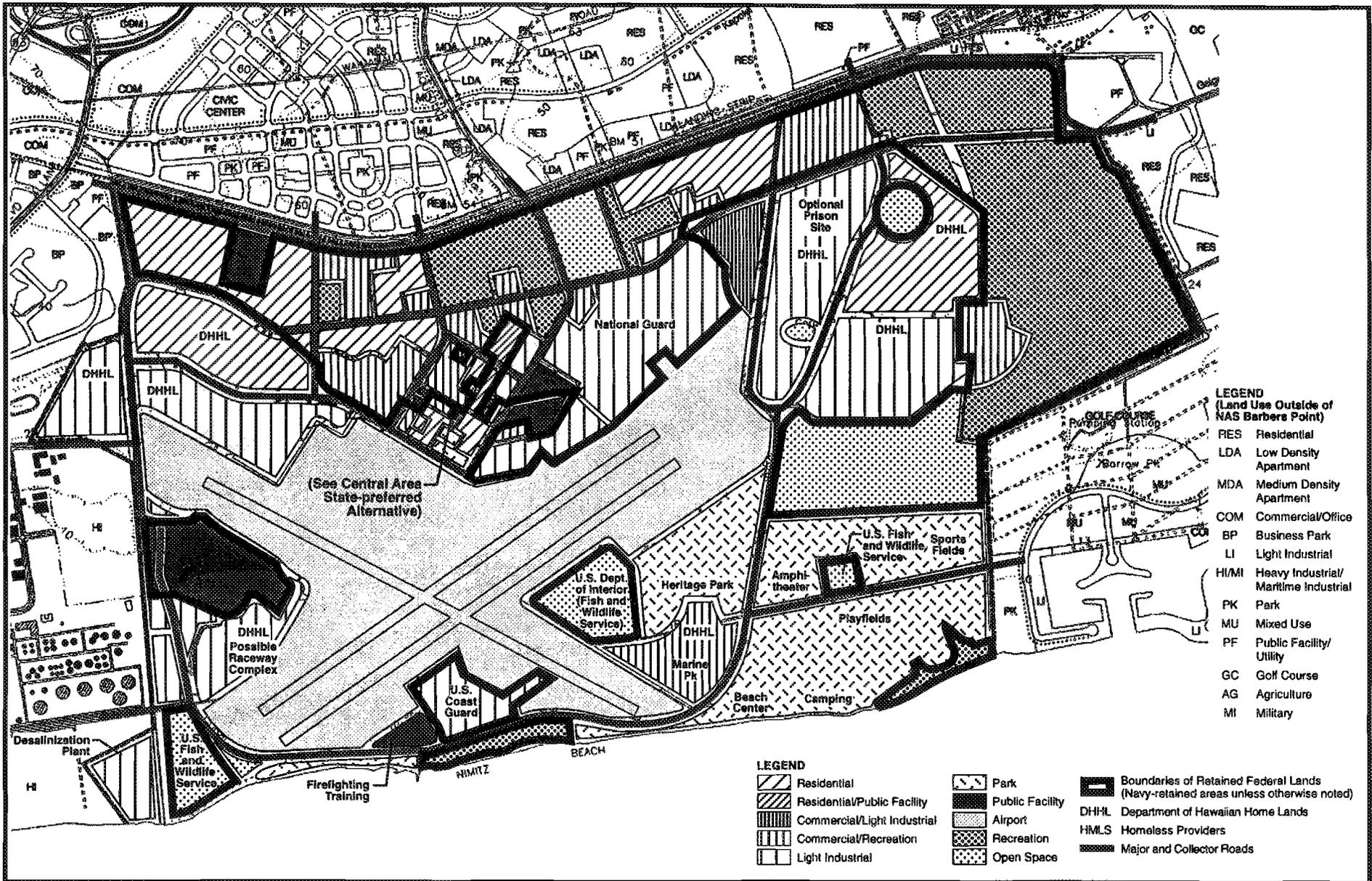
The *NAS Barbers Point Master Plan* (PACNAVFACENGCOM, August 1991) proposes land use patterns consistent with development constraints that will ensure compatible land uses and the availability of adequate land area for siting new facilities to meet projected requirements and fulfill the mission of the station. The 1991 master plan is a supplement to the March 1986 plan. With the exception of a sizable increase in family housing, there are no major changes to the 1986 basic land use pattern. Figures 5.6-1a through 5.6-1d illustrate the land uses at NASBP in relation to the proposed land uses of the reuse alternatives.

Land use compatibility issues associated with the proposed reuse areas and Navy-retained areas (and excess areas) and communities adjacent to NASBP have been considered in the individual evaluations of specific resources. For example, land use compatibility concerns between the continued use of the airport were considered in the evaluation of airport noise, Section 4.1.5.2. While these findings were not explicitly discussed in Section 4.1.5.2, because the evaluations in this FEIS are intended to focus on the reuse areas, no significant impacts from noise would occur in any area as noise levels would be compatible with baseline and proposed land uses. No significant land use incompatibilities between the proposed land uses in the reuse areas, the Navy-retained areas (and excess areas), and communities adjacent to NASBP were identified in any of the evaluations of specific resources in this FEIS. With proper planning and an understanding of the existing operations within the retained areas (e.g., biosolids co-composting facility), development



Sources: Heiber Hastert & Fee Planners (March 1997 and December 1997); PACNAVFACENGCOM, map of federal retention areas as of September 28, 1998; Navy land use information obtained from NAS Barbers Point Post-Closure Land Use and Facilities Planning Study (September 1996) and placed into land use categories used in this EIS.

Figure 5.6-1a
STATE-PREFERRED ALTERNATIVE AND NAVY-RETAINED LAND USES
EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii



LEGEND (Land Use Outside of NAS Barbers Point)

- RES Residential
- LDA Low Density Apartment
- MDA Medium Density Apartment
- COM Commercial/Office
- BP Business Park
- LI Light Industrial
- HI/MI Heavy Industrial/Maritime Industrial
- PK Park
- MU Mixed Use
- PF Public Facility/Utility
- GC Golf Course
- AG Agriculture
- MI Military

LEGEND

- Residential
- Residential/Public Facility
- Commercial/Light Industrial
- Commercial/Recreation
- Light Industrial
- Park
- Public Facility
- Airport
- Recreation
- Open Space
- Boundaries of Retained Federal Lands (Navy-retained areas unless otherwise noted)
- DHHL Department of Hawaiian Home Lands
- HMLS Homeless Providers
- Major and Collector Roads

0 300 600 1200
 SCALE IN METERS

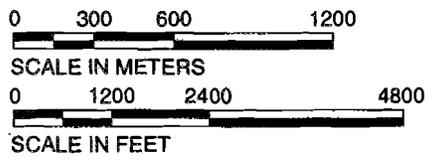
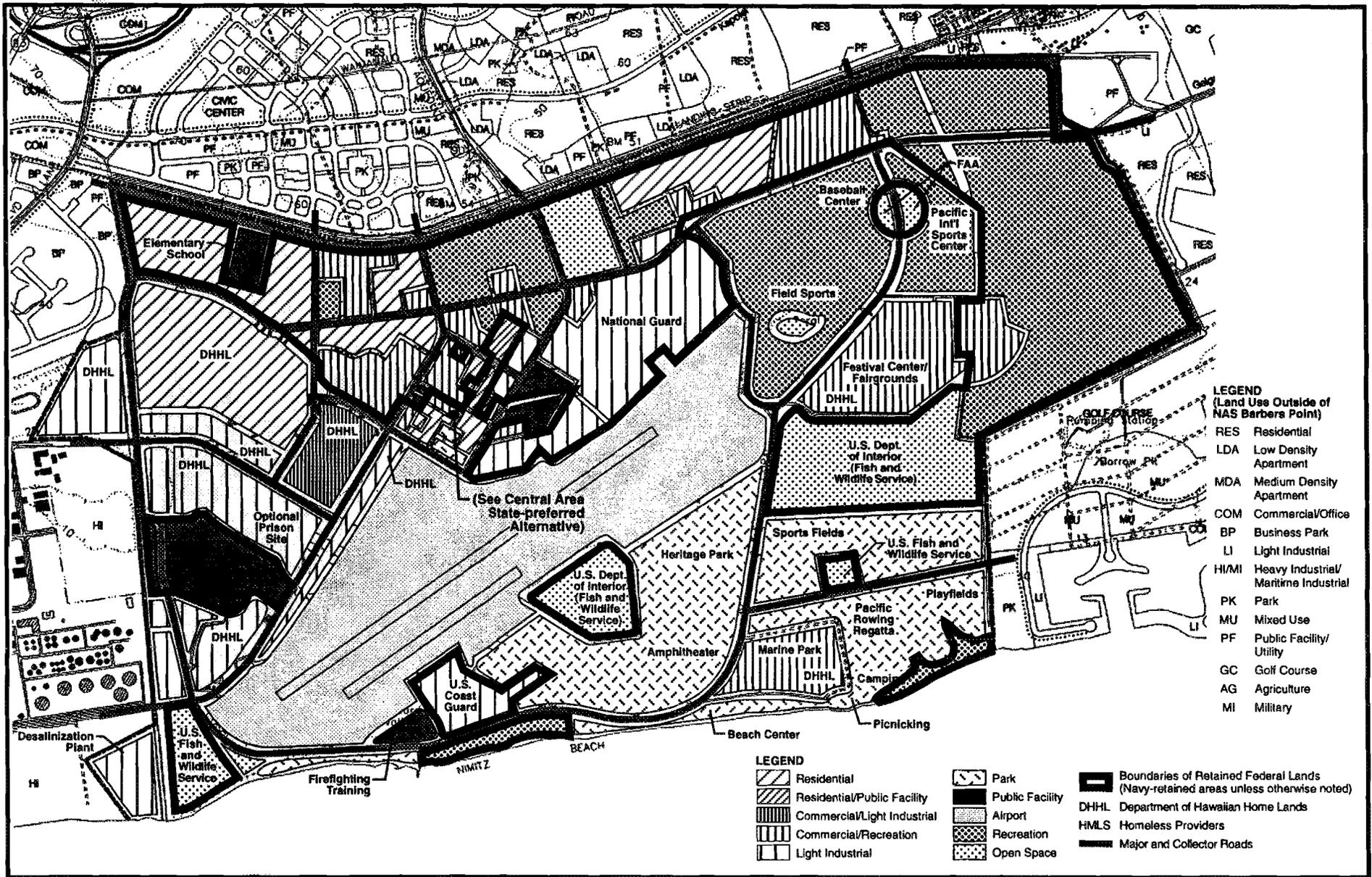
0 1200 2400 4800
 SCALE IN FEET



Sources: Heiber Hastert & Fee Planners (March 1997 and December 1997); PACNAVFACENGCOM, map of federal retention areas as of September 28, 1998; Navy land use information obtained from NAS Barbers Point Post-Closure Land Use and Facilities Planning Study (September 1996) and placed into land use categories used in this EIS.

**Figure 5.6-1b
 LARGE AIRPORT ALTERNATIVE
 AND NAVY-RETAINED LAND USES**

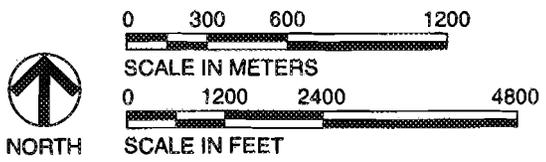
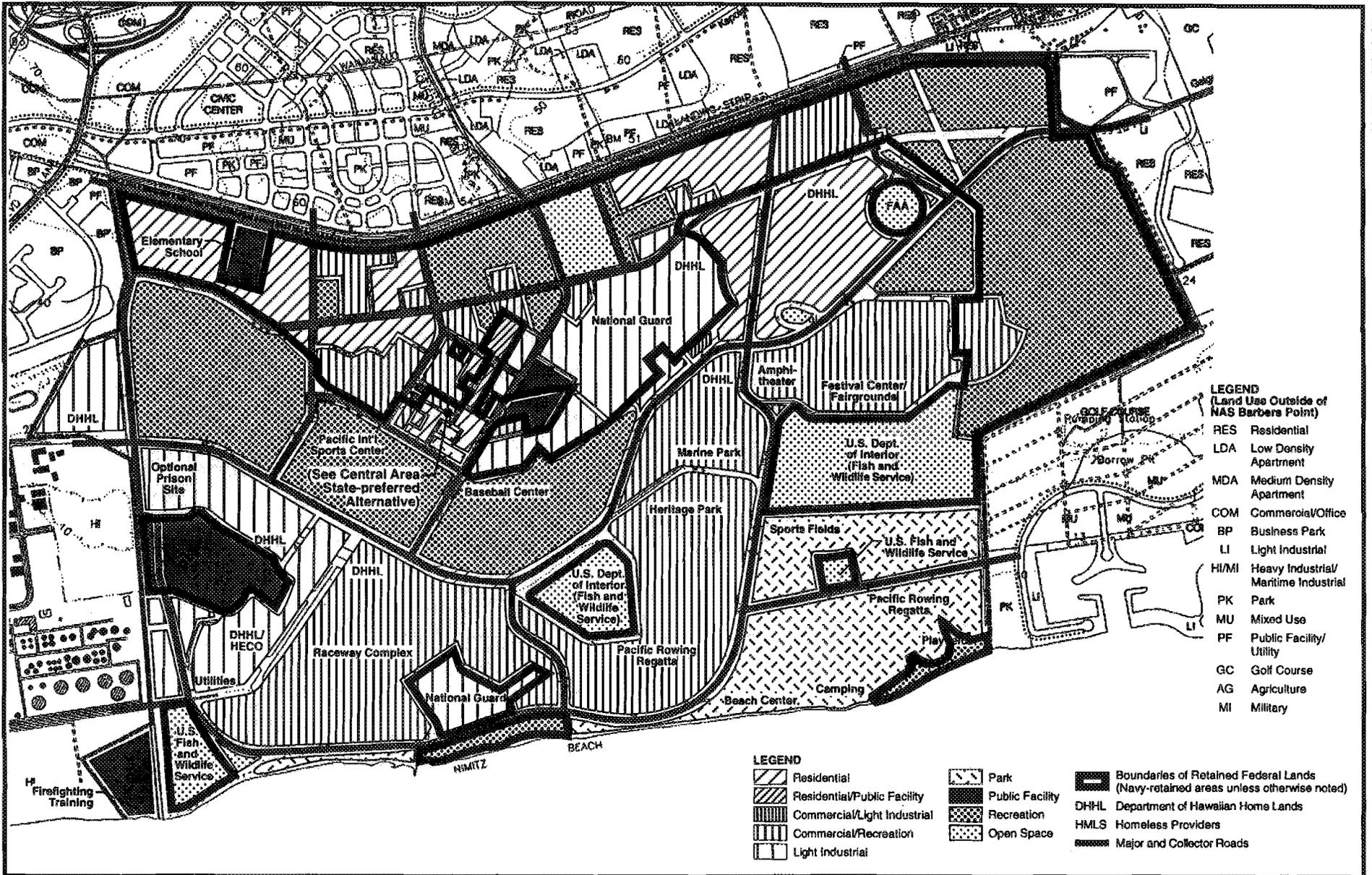
EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii



Sources: Helber Hastert & Fee Planners (March 1997 and December 1997); PACNAVFACENCOM, map of federal retention areas as of September 28, 1998; Navy land use information obtained from NAS Barbers Point Post-Closure Land Use and Facilities Planning Study (September 1996) and placed into land use categories used in this EIS.

**Figure 5.6-1c
 SMALL AIRPORT ALTERNATIVE
 AND NAVY-RETAINED LAND USES**

EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii



Sources: Heiber Hastert & Fee Planners (March 1997 and December 1997); PACNAVFACENGCOM, map of federal retention areas as of September 28, 1998; Navy land use information obtained from NAS Barbers Point Post-Closure Land Use and Facilities Planning Study (September 1996) and placed into land use categories used in this EIS.

Figure 5.6-1d
NO AIRPORT ALTERNATIVE
AND NAVY-RETAINED LAND USES

EIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii

in the reuse areas can be accomplished so that specific operations within land use types are compatible.

5.6.1.4 Inconsistencies with Existing Land Use Plans

State-preferred, Large Airport, and Small Airport Alternatives. To mitigate inconsistencies, the residential parcel in the northwest portion of the reuse plan should be modified to eliminate safety hazards as described in Section 4.4. Light industrial uses on the western parcel could serve as a transition zone between heavy industrial and residential uses. Residential land use on the eastern parcel should include landscaped buffers between residential and light industrial uses.

Large Airport Alternative. Because the proposed light industrial parcel along the eastern edge of this plan does not conform to the open space network concept in the *Ewa Development Plan*, land use for that parcel should be changed to open space or recreational use.

No Airport Alternative. Unless an alternative airport site is located elsewhere on the Island of Oahu, this alternative should include an airport which conforms to Transportation and Public Safety requirements in the *General Plan*.

All Reuse Alternatives. The NASBP LRA would be responsible for future development at Barbers Point so that future residential densities, building heights, streetscape design, landscape buffers, bus and bikeway systems, and infrastructure planning conform to the requirements of the *General Plan* and *Ewa Development Plan*.

5.6.2 Safe Drinking Water Act, Clean Water Act, Rivers and Harbors Act, and Executive Order 11990 - Protection of Wetlands

Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA), 42 U.S.C. §300f, regulates the quality of groundwater as a drinking source and controls discharges to groundwater. In Hawaii, underground injection of fluids, including treated wastewater, is regulated by the Underground Injection Control (UIC) program per HAR Chapter 11-23 (State of Hawaii, Department of Health, November 1992). The purpose of this program is to prevent underground injection of fluids that endanger drinking water sources. The UIC line for the island of Oahu has been established. Lands that are oceanside of the UIC line overlie aquifers that are not being used as underground sources of drinking water. The surplus areas are oceanside of the UIC; thus no drinking water wells are present. The existing dry wells are covered under this program, and these wells would remain in service to the extent possible. The new owners would need to obtain the UIC permits from DOH. Should additional wells be needed for drainage improvements, new UIC permits would be required.

Water Pollution Control Act (also known as the Clean Water Act)

The federal Clean Water Act (CWA), 33 U.S.C. §§1251-1381, contains many regulatory programs to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

Section 404 CWA, 33 U.S.C. §1344, Discharges in Navigable Waters of the U. S. This section limits the discharge of dredged or fill materials into navigable waters. Approvals for such work must be obtained through the U.S. Army Corps of Engineers (ACOE). The construction of the outfalls would require approval under this program.

Section 401 Water Quality Certification. The federal CWA and Hawaii Revised Statutes (H.R.S.), Chapter 342 D, along with their supporting rules in HAR Chapter 11-54, Water Quality Standards, require that a Water Quality Certification (WQC) be obtained to support the permits for which proposed construction or operation may result in discharges to state waters. The outfall construction would involve discharges into state waters; thus a Section 401 WQC would be required.

Section 402 NPDES Permit. Discharges of pollutants into surface waters of the U.S. (including storm water to oceans via outfalls) are controlled under the National Pollutant Discharge Elimination System (NPDES) program, pursuant to Section 402 of this Act. This program is administered by the State of Hawaii Department of Health under HAR Chapter 11-55 (State of Hawaii, Department of Health, September 1997). This chapter requires separate Notices of Intent (NOIs) for NPDES General Permit coverage for discharges of storm water runoff associated with construction activities on sites sized 5 acres (2 hectares) or greater, for discharges associated with construction activity dewatering, and for hydrotesting.

Construction activities, dewatering, and hydrotesting may result in discharges of storm water runoff to the Class 2 seasonal wetland and coastal salt flats. NOIs require submittal of a Best Management Practices plan, in accordance to HAR Chapter 11-55.

Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act, 33 U.S.C. §403, prohibits the obstruction or alteration of navigable waters of the U.S. and alterations or modifications of the course, location, condition, or capacity of any port, harbor or refuge, or enclosure within the limits of any breakwater or of the channel of any navigable water without a permit from the ACOE. Should the proposed reuse require development of a drainage outfall in coastal waters, a permit would be required from the ACOE. The ACOE would authorize Section 10 of Rivers and Harbors Act and Section 404 of CWA under one permit.

Executive Order 11990 - Protection of Wetlands

In furtherance of NEPA and its amendments, this Executive Order was issued to avoid long-term and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands. Since the marine wetland and seasonal wetland may be disturbed or eliminated under the reuse plans, the acquiring entity would be required to obtain permits from the ACOE in accordance with Section 404 of the CWA. The stringent requirement of this law should provide adequate mitigation for the loss of wetlands.

5.6.3 Endangered Species Act

Endangered and threatened species do occur on NASBP. Populations of the endangered 'akoko (*Chamaesyce skottsbergii* var. *skottsbergii*), *Achyranthes splendens* var. *rotundata*, and Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*) are documented on the base. Wetlands on

the base support the Hawaiian black-necked stilt. The humpback whale (*Megaptera novaeangliae*) is an endangered species found off shore. The green sea turtle (*Chelonia mydas*) is the only threatened species and occurs off shore. Migratory birds that occur on NASBP include the Pacific golden plover (*Pluvialis fulva*), sanderling (*Calidris alba*), and ruddy turnstone (*Arenaria interpres*). All are regular visitors to Hawaii.

The federal Endangered Species Act (ESA) of 1973, 16 U.S.C. §§1531-1544, requires that any action authorized by a federal agency be found not likely to jeopardize the continued existence of any endangered or threatened species or to result in destruction or adverse impact of habitat critical to that species. Section 7 of the act requires the responsible federal agency to consult with the USFWS and National Marine Fisheries Service (NMFS). Letters documenting Navy's consultation with USFWS and NMFS and their concurrence that Navy's proposed conveyance of land is not likely to adversely affect the subject species are presented in Appendix A-8. Prior to conveyance of land that may contain federally listed threatened or endangered species from the U.S. DOI to the State of Hawaii and to the C&C of Honolulu, consultation by the appropriate bureau within the U.S. DOI in accordance with federal endangered species laws and regulations (Section 7 of the ESA of 1973) will be required.

Development at NASBP after the completion of the BRAC is unlikely to impact the wetlands frequented by the Hawaiian black-necked stilt and migratory birds. The green sea turtle is also not likely to be significantly impacted by plans for reuse. Species that occur at lower frequency (i.e., humpback whale) are found elsewhere in greater numbers. However, areas containing the endangered plant species would need careful attention to ensure that impacts are mitigated during development. Coordination with USFWS will take place to ensure that these areas and the plants they contain are protected.

5.6.4 Fish and Wildlife Coordination Act

Section 2 of the Fish and Wildlife Coordination Act, 16 U.S.C. §662, directs federal agencies to consult with USFWS and state agencies before authorizing alterations to water bodies. No alteration to water bodies are anticipated as part of this action.

5.6.5 Clean Air Act

Section 176 of the Clean Air Act (CAA), 42 U.S.C. §7401, prohibits any federal agency from engaging in, supporting, providing financial assistance for, licensing, permitting, or approving any activity which does not conform to an applicable federal or state implementation plan (SIP). To implement the intent of Section 176(c), federal conformity rules have been promulgated and are provided in 40 C.F.R. Parts 51 and 93. These rules require that specific actions proposed in non-attainment and maintenance areas conform with applicable federal and state implementation plans, and that the federal agency determine that the proposed action conforms to the applicable implementation plan prior to taking action. These rules are not applicable to the proposed action because the conveyance of properties is exempt from the provisions of these rules. Additionally, conformity rules are only applicable in non-attainment and maintenance areas. The State of Hawaii is in attainment of the National Ambient Air Quality Standards (NAAQS).

5.6.6 National Historic Preservation Act

Section 106 of NHPA, 16 U.S.C. §470, requires a federal agency to inventory and evaluate historic properties (i.e., cultural resources) for inclusion in the NRHP, and take into account the effect of an undertaking on a property that is listed or eligible for listing in the NRHP. The inventory of cultural resources at NASBP has been completed, and the resources that are eligible for listing in the NRHP have been identified. The SHPO, pursuant to Section 106 of NHPA, has concurred with Navy's "no adverse effect" determination for the disposal of surplus lands with significant cultural resources, provided the transfer includes deed covenants. Deed covenants will ensure appropriate treatment of these resources affected by proposed reuse. Supporting letters are provided in Appendix A-9.

5.6.7 Executive Order 11988 - Floodplain Management

Executive Order 11988 (May 24, 1977) provides floodplain management direction to federal agencies for avoiding to the extent possible the long- and short-term adverse impacts of occupying and modifying floodplains, and for avoiding direct and indirect support of floodplain development wherever this is practical. It requires actions to be taken to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains. Each agency is required to evaluate the potential effects of any actions it may take in a floodplain, to ensure that its planning and budget requests reflect consideration of flood hazards and floodplain management, and to prescribe procedures to implement policies and requirements of this Executive Order.

The flood zone at NASBP is mainly along the coastal lands designated for recreation under all reuse alternatives. Development within the flood zone would be minimized. In accordance with Executive Order 11988, Navy would place a notice in the conveyance document that describes those uses that are restricted under federal, state, and local floodplain regulations.

Drainage improvement measures, such as construction of a drainage channel, may alter the course of runoff in the floodplain. Because most of NASBP is categorized as Zone D (areas in which flood hazards are undetermined) and lies outside of a special flood hazard area (because it is Zone D and without streams or rivers), no significant impact on floodplain management would occur with implementation of reuse alternatives.

5.6.8 RCRA/CERCLA/Environmental Compliance

The 1976 Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6901 *et seq.*, was established to protect human health and the environment from hazards associated with solid and hazardous waste generation, transportation, treatment, storage, and disposal. Subtitle C of RCRA imposes on the owners and operators of hazardous waste facilities specific requirements for developing spill contingency plans. RCRA provides for the tracking of hazardous wastes through a record-keeping system that requires the manifesting of hazardous waste shipments from point of generation to ultimate disposal. The 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §9601 *et seq.*, gave the U.S. EPA responsibility for regulating the uncontrolled release of hazardous substances nationwide. The Superfund Amendments and Reauthorization Act of 1986 (SARA) amended CERCLA so that it

applies to federal facilities. SARA Section 211, which is codified in 10 U.S.C. §2701, created the Defense Environmental Restoration Program.

In compliance with the BRAC Restoration Program and all applicable federal and state laws, an environmental baseline survey has been performed on the base. Environmental cleanup of past hazardous waste releases at NASBP has begun. The *BRAC Cleanup Plan (Draft) for NAS Barbers Point, Oahu, Hawaii* (U.S. Navy, January 1998) provides the status of cleanup activities. Any damaged, accessible, and friable asbestos containing material in buildings identified for reuse will be abated, per DOD BRAC policy of October 1994. Underground storage tanks will be removed or tested for tightness and reused. PCB-containing transformers have been retrofitted. LBP will be managed in accordance with the Residential Lead-Based Paint Hazard Reduction Act of 1992, 42 U.S.C. §4851 *et seq.* More specifically, Navy will comply with the provisions of the law regarding disclosure of LBP and LBP hazards, and will include any available assessment data pertaining to the property being conveyed and a lead warning statement in property conveyance documents (U.S. Navy, January 1998).

All points of interest (POIs) have been evaluated (U.S. Navy, June 1994) (U.S. Navy, December 1996), and will undergo remediation (if necessary) in accordance with federal and state regulations and current DOD policy. The status of and recommendation for environmental cleanup can be reviewed in the *BRAC Cleanup Plan (Draft) for NAS Barbers Point, Oahu, Hawaii*. A finding of suitability to transfer (FOST) or finding of suitability to lease (FOSL) would be prepared, stating that the property is suitable for lease or transfer without restrictions or outlining the proposed restrictions on future uses of the property.

Significant quantities of hazardous substances are not expected to be generated by development or implementation of any of the reuse alternatives. Hazardous waste management would be performed in accordance with regulatory law. Future occupants would be responsible for their own hazardous materials/waste management programs.

5.6.9 Coastal Zone Management Act

The federal Coastal Zone Management Act of 1972, 16 U.S.C. §1451, as amended, requires federal agencies to conduct their planning, management, development, and regulatory activities which affect the coastal zone in a manner consistent to the maximum extent practicable with the State's Coastal Zone Management (CZM) program. The State CZM program under the Department of Business, Economic Development and Tourism (DBEDT) makes a consistency determination on projects conducted in the coastal zone. The "coastal zone" in Hawaii encompasses all lands and waters, except for areas under federal ownership or exclusive control. Navy has determined that the proposed disposal action will be undertaken in a manner that will not affect the coastal zone (land, water use, or natural resources) and is consistent to the maximum extent practicable with the enforceable policies of the CZM program. The letter containing Navy's determination, along with DBEDT's concurrence, are provided in Appendix A-7.

5.6.10 Department of Transportation, Section 4(f)

Section 4(f) of the Department of Transportation Act, 49 U.S.C. §303, states that it is national policy to preserve public parks, recreation areas, wildlife and waterfowl refuges, and historic sites. It

prohibits use of federal funds for projects that have significant adverse impacts regarding the above resources unless (1) there is no prudent and feasible alternative to using such lands, and (2) the program or project includes all possible planning to minimize harm resulting from the use of such lands.

The existing NASBP has been developed as a military base with an airport. No public parks and recreation exist on NASBP. With reuse, substantial park and recreational areas on NASBP would be developed.

Each of the alternatives for reuse, except for No Action, proposes changes in the existing roadways to enhance transportation on the base and access from surrounding areas. Most of these changes would be extensions or changes in alignment of existing roadways. Areas containing endangered plant species and cultural resources have been identified on lands to be developed under all reuse alternatives. With mitigation, it is unlikely that the proposed roadway changes would significantly affect wildlife or cultural resources.

In addition, the existing airport would become smaller (State-preferred and Large Airport alternatives), become significantly smaller (Small Airport alternative), or be redeveloped for other land uses (No Airport alternative). In these cases, restrictions defined in Section 4(f) would not apply. It is unlikely that these changes would have negative impacts on wildlife or cultural resources that could not be mitigated.

CHAPTER SIX

LIST OF PREPARERS

Listed below are employees of the Navy and the Federal Aviation Administration (FAA) who are responsible for the preparation of the Final EIS (FEIS). The responsibility of these documents is with the Navy employees located at the Pacific Division, Naval Facilities Engineering Command in Pearl Harbor, Hawaii. The FAA is also partly responsible for preparation of the document in the capacity of a cooperating agency through its Airports Division Office in Honolulu, Hawaii, and its Western-Pacific Region Office in Los Angeles, California. Included below are the identities and backgrounds of the principal preparers.

As in any other significant airport improvement project, substantial assistance and data analysis were provided by the Navy and its consultants. The prime consultant was Belt Collins Hawaii. In accordance with CEQ 1506.5c and FAA Order 5050.4A, paragraph 76(e), a written statement was submitted by the contractor, disclosing that it has no financial or other interests in the execution, outcome, or mitigation measures of the proposed disposal and reuse of NASBP. As required by FAA Order 5050.4A, paragraph 77, the names and qualifications of the principal persons contributing information are identified. Unless specifically indicated, preparers and contributors participated in the FEIS.

In accordance with Section 1502.6 of the CEQ regulations, the efforts of an interdisciplinary team, consisting of technicians and experts in various fields, were required to accomplish this study. Specialists involved in the FEIS included those in such fields as airport planning, air traffic control, noise assessment and abatement, land use planning, air pollution, biology, historic, architectural, and archaeological resources, and other disciplines. It should be noted that while an interdisciplinary approach has been used, all decisions made with regard to the content and scope of this FEIS are those of the Navy and FAA.

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The following subconsultants prepared documents from which this FEIS drew information for various sections:

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CHAPTER SEVEN

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CHAPTER EIGHT

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Table A-8 DEIS Letters of Response

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Federal	
Department of the Army U.S. Army Engineer District, Honolulu	
U.S. Department of the Interior Office of the Secretary Office of Environmental Policy and Compliance	
U.S. Department of the Interior U.S. Geological Survey - Water Resources Division	
U.S. Department of Transportation Federal Aviation Administration	
U.S. Department of Transportation (A) U.S. Coast Guard Fourteenth Coast Guard District	
U.S. Department of Transportation (B) U.S. Coast Guard Fourteenth Coast Guard District	
U.S. Department of Transportation (C) U.S. Coast Guard Fourteenth Coast Guard District	
U.S. Environmental Protection Agency Region IX Federal Activities Office	
State of Hawaii	
State of Hawaii Department of Defense Office of the Director of Civil Defense	
State of Hawaii Department of Design and Construction	
State of Hawaii Department of Education	
State of Hawaii Department of Hawaiian Home Lands	

State of Hawaii Department of Health	
State of Hawaii Department of Land and Natural Resources (A)	
State of Hawaii Department of Land and Natural Resources (B)	
State of Hawaii Department of Transportation (A)	
State of Hawaii Department of Transportation (B)	
State of Hawaii Department of Water Resource Management Land Division, Engineering Branch	
State of Hawaii Office of Hawaiian Affairs	
City & County of Honolulu	
City & County of Honolulu Board of Water Supply	
City & County of Honolulu Department of Community and Social Resources	
City & County of Honolulu Department of Environmental Services	
City & County of Honolulu Department of Facility Maintenance	
City & County of Honolulu Department of Planning and Permitting	
City & County of Honolulu Planning Department	
City & County of Honolulu Police Department	
Leeward Oahu Transportation Management Association	
Community/Other	
Mr. Jan Becket	
The Estate of James Campbell Manager, Land Planning	

The Gas Company	
Mark J. Tarone	

Appendix A-1

SUBMITTALS TO U.S. DEPARTMENT OF
HOUSING AND URBAN DEVELOPMENT

EXECUTIVE CHAMBERS

HONOLULU

BENJAMIN J. CAYETANO
GOVERNOR

March 17, 1997

Mr. William Poythress, Coordinator
Base Redevelopment Team
U.S. Department of Housing and Urban Development
451 Seventh Street, S.W., Room 720
Washington, D.C. 20410

Dear Mr. Poythress:

I am pleased to submit the Final Reuse Plan and Homeless Assistance Application for Barbers Point Naval Air Station (BPNAS). In accordance with all applicable federal and state laws and regulations, the BPNAS Final Reuse Plan was adopted by the BPNAS Redevelopment Commission on October 8, 1996. This plan is the culmination of more than three years of effort on the part of the BPNAS Redevelopment Commission, numerous state and county officials, residents of the neighboring communities, community-based organizations, business and union representatives, and other interested individuals and organizations who provided valuable input on the development of the BPNAS Final Reuse Plan.

The BPNAS Redevelopment Commission has represented the State of Hawaii as the officially recognized Local Reuse Authority (LRA) for the development of the BPNAS Final Reuse Plan. It was created initially as the BPNAS Reuse Committee by a joint letter of the Governor of Hawaii and the Mayor of the City and County of Honolulu dated September 29, 1993. To formalize its activities and extend its duration and powers, the Committee was redesignated as the BPNAS Redevelopment Commission by Executive Order 94-08 signed by my predecessor, Governor John Waihee, on December 2, 1994. Ultimately, the Commission was composed of fifteen members including five State department heads, three City and County of Honolulu Department Heads, three members representing the neighboring communities, and representatives of the Chamber of Commerce of Hawaii, small business, labor, and the homeless communities.

In keeping with federal regulations regarding community input, all meetings of the BPNAS Reuse Committee, its successor organization, the BPNAS Redevelopment Commission, and their task forces, which were composed of governmental, business and community representatives to consider applications and recommend appropriate uses, were open to the public. At the outset, a charette was conducted to allow interested parties to work in teams to develop various scenarios for the reuse of BPNAS surplus lands. Eventually, three scenarios for reuse of BPNAS emerged: Scenario A - Reuse including a State-operated airport with two parallel and one crosswind runways, Scenario B - Reuse including a smaller State-operated airport without the crosswind runway, and Scenario C - Reuse without an airport. These scenarios were presented at four public hearings at various locations on Oahu to obtain island-wide input. On August 27, 1996, the Commission created and preliminarily adopted a new Scenario that was a composite of Scenarios A and B. A public hearing was conducted on the composite scenario on September 17, 1996, and it was adopted by the Commission on October 8, 1996.

Mr. William Poythress
March 17, 1997
Page Two

To address the homeless assistance component of the Reuse Plan, the BPNAS Redevelopment Commission solicited Notices of Interest (NOI) from local homeless providers, evaluated the proposed services and determined that 13 acres in the developed area ("downtown") of BPNAS and 65 acres of raw land in the northwestern quadrant would be needed to provide the "continuum of care" described in the U.S. Department of Housing and Urban Development (HUD) "Guidebook on Military Base Reuse and Homeless Assistance, March 1996." To provide expertise, the Hawaii Housing Authority (HHA), a State agency with extensive experience with homeless programs, was selected as the "umbrella" agency to manage the homeless assistance component of the Reuse Plan in close coordination with the City and County of Honolulu's Department of Housing and Community Development. HHA has contracted with the LRA to deliver the homeless assistance program and has signed agreements with the participating service providers to establish the continuum of care. HHA conducted a charette to allow service providers, community members and other interested parties to suggest various scenarios. These scenarios were then used to develop the Conceptual Land Use Plan and Homeless Assistance Submission, which I approved on January 21, 1997.

To serve the State of Hawaii as the LRA for the implementation phase of the redevelopment of BPNAS, I have selected the Hawaii Community Development Authority (HCDA), a quasi-public agency with twenty years of experience in redeveloping the Kakaako section of the City of Honolulu. The traditional Hawaiian name for Barbers Point is "Kalaeloa," which means "long point," and legislation is now pending to establish the surplus area at BPNAS to be received by the State as the "Kalaeloa Community Development District" (KCDD), designate HCDA as the implementation LRA for the redevelopment of the KCDD, establish guidelines for development and provide an appropriation to sustain these activities. The designation of HCDA as implementation LRA is subject to the concurrence of the Hawaii State Legislature, which is now in session.

The Final Reuse Plan provides for a long needed State-operated airport to separate civil aviation activities from the commercial and military operations at Honolulu International Airport/Hickam Air Force Base. It also provides an alternate landing site for commercial aircraft destined to Honolulu International Airport and the capability to support disaster recovery operations should the need occur. The Final Reuse Plan provides 496 acres of land to the Department of Hawaiian Homelands to settle claims against the federal government under the Hawaiian Homelands Recovery Act of 1995. More than 700 acres are dedicated to regional and beach park use, ballfields and a sports complex. Economic Development uses contained in the plan total approximately 279 acres. It is anticipated that the Final Reuse Plan will support 3,300 direct jobs in the area by the year 2020.

Mr. William Poythress
March 17, 1997
Page Three

We believe this application is complete, balanced and comprehensive, and we look forward to working with you and your organization in facilitating your review and acceptance of this Final Reuse Plan and in its implementation. If you have any questions or require more information regarding this submittal, please contact Mr. William M. Bass, Executive Director of the BPNAS Redevelopment Commission at (808) 587-2843.

With warmest personal regards,

Aloha,


BENJAMIN J. CAYETANO

cc: (with enclosures)

U.S. Department of Housing and Urban Development (HUD), Hawaii Office

cc: (without enclosure)

Assistant Secretary of the Navy, (Installation and Environment)
Deputy Assistant Secretary of the Navy, (Conversion and Redevelopment)
Office of Economic Adjustment
Commander Naval Base Pearl Harbor
Commanding Officer, NAS Barbers Point
Pacific Division Naval Facilities Engineering Command
(Base Realignment and Closure)
Base Transition Field Office, NAS Barbers Point
Senator Daniel K. Inouye
Mayor Jeremy Harris, City and County of Honolulu
Members, BPNAS Redevelopment Commission

BENJAMIN J. CAVETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
HAWAII HOUSING AUTHORITY
P. O. BOX 17807
HONOLULU, HAWAII 96817

G.J. YAMADA
EXECUTIVE DIRECTOR

SHARYN L. MIYASHIRO
DEPUTY EXECUTIVE DIRECTOR

FAX: (808) 632-6030

IN REPLY REFER TO:

98:OED/21

May 1, 1998

Mr. William Poythress
U.S. Department of Housing and Urban Development
Georgia State Office
Richard B. Russell Federal Building
75 Spring Street SW
Atlanta, Georgia 30303-3388

Re: **Addendum to the State of Hawaii's Homeless Assistance
Submission for the Redevelopment Master Plan for the
Barbers Point Naval Air Station Submitted by the Governor,
State of Hawaii**

Dear Mr. Poythress:

My staff has reported that the March 4, 1998, meeting with you was very productive. You had provided insightful comments regarding the above-referenced Homeless Assistance Submission (HAS). The guidance offered by you and Patty Nicholas on points in the HAS which require clarification is sincerely appreciated, and your request for additional documents is hereby acknowledged and provided.

A. Background Information

Since the Hawaii Housing Authority (HHA) became actively involved in fashioning the HAS, many developments have transpired which have had a significant impact upon the matrix of the HAS. By way of review, following the February 17, 1997, submission of the HAS to HUD, a series of telephone conferences took place with you, Ms. Nicholas, my former planners, Cynthia Charlton Quinn and Melissa Lewis, and myself. These discussions, commencing in the Spring of 1997, addressed modifications to the HAS and were necessary because the HAS involved a substantial amount of land, including undeveloped acres, which were to be set aside in the homeless

Mr. William Poythress
May 1, 1998
Page 2

conveyance. I am cognizant of the formidable challenge presented by the HAS. As you pointed out, no other homeless submission involved approval for such a large expanse of land which the base closure triggered. To this extent, I am grateful for your continuing guidance and diplomacy in collaborating with the HHA toward completion of the HAS.

In addition, other factors beyond the control of this agency impacted the HAS, including an eleven month review of contract issues by the Department of the Attorney General (AG). Internally, a substitution of counsel also occurred with the transfer of legal services from the Office of State Planning (OSP), Department of Business, Economic Development and Tourism (DBEDT) to the AG Housing Unit.

Finally, during September, 1997, a telephone conference was requested by you and coordinated by Ms. Nicholas at HUD's Honolulu office which resulted in a decision to request deletion of the 65-acre wilderness in the northwest quadrant from the HAS. Ms. Nicholas could not attend this meeting due to a conflict in her schedule, however, she encouraged participation to discuss issues you had identified for clarification. HUD Community, Planning, Development Representative, Mr. Chin Woo Choi, asked several individuals to attend this meeting, including representatives from the previous and current Barbers Point Naval Air Station (BPNAS) Redevelopment Commission, namely Cheryl Soon, Robert Agres, and Ronald Lim.

During this conference call, you asked about a firm commitment from the BPNAS Redevelopment Commission regarding: (1) infrastructure and development costs of the 65 acres; (2) anticipated Congressional concerns about the protracted 20-year period for the development to occur; and (3) the heavy concentration of a homeless population in one area. Although these were valid points, the required commitment extended beyond the authority of the HHA. Both Mr. Egged, Chairman of the BPNAS Redevelopment Commission and Director of OSP, and William Bass, Executive Director of the BPNAS Redevelopment Commission, were apprised of your concerns and informed of the recommendation which would be made by the HHA for the deletion of the 65-acres of wilderness in the northwest quadrant.

Throughout the course of our telephone conversations, you conveyed no reservation about the remaining portion of the HAS pertaining to the 13-acre downtown area. Subsequent to the telephone conference, I sent a letter dated January 14, 1998, to Ms. Nicholas which reported the new developments arising from the telephone conference and subsequent action taken by the BPNAS Redevelopment Commission.

Mr. William Poythress
May 1, 1998
Page 3

B. Points Discussed During March 4, 1998, Meeting and HHA Response

With regard to the recent March 4, 1998, meeting, please accept this letter as the HHA's formal response to the issues discussed and as an update and addendum to the HAS submitted by Governor Benjamin J. Cayetano on February 17, 1997. The following is a summary of matters identified at the March 4th meeting at which time it was stated that additional information or documents were required to complete the HAS. The housing authority's response is set forth after each of the enumerated issues.

1. HUD requested revisions to the matrix set forth in Exhibit "G" of the HAS which include addition of descriptions of the accommodation to be provided to the applicant agencies.¹

HHA Response: The revised matrix is marked as Exhibit "G-1" and attached hereto. See Attachment 1. Please replace page one (1) of the current Exhibit "G" in the HAS. This revised matrix lists the applicants who submitted Notices of Interest (NOI), outlines their proposals, identifies the acreage required and the preferred location at Barbers Point, identifies the building facilities requested, and describes the accommodation to be provided.

2. HUD requested additional information on the outcome of the Request for Proposal (RFP) process, including affirmation by HHA as to the RFP process, and a sample RFP utilized by the State of Hawaii in contracting for homeless programs.²

HHA Response: Pursuant to §42D-24, Hawaii Revised Statutes, we cite the following:

§42D-24 Requests for proposals. (a) Agencies anticipating appropriations for purchases of service shall advertise for proposals in a newspaper of general circulation in each county of the State. Agreements for purchases of service shall be awarded on the basis of cost-effectiveness, quality of services, or other criteria as may be determined by the director. When providers are specified by federal law, and upon certification to that effect in the form prescribed by the director, an agency shall not be required to advertise requests for proposals.

(b) An agency may select a provider without further advertisement as provided by subsection (a) or select an alternate method of service delivery if:

¹ Referenced in Items 1, 5a and 6b of the March 4, 1998, facsimile.

² Referenced in Item 2 of the March 4, 1998, facsimile.

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May 1, 1998
Page 4

- (1) No proposals are received in response to the advertisement for proposals as provided by subsection (a); or
- (2) After a purchase of service contract has been awarded, the provider becomes ineligible to be a provider under sections 42D-2 or 42D-3 or becomes unwilling, unable, or unqualified to satisfactorily provide the desired services.

As stated in the HAS, the RFP process would be utilized to accommodate breaks in service for which there are no NOIs. During the March 4, 1998, meeting, staff clarified this issue. HUD requested affirmation by the HHA of its commitment to the RFP process. Please find attached my letter dated May 1, 1998, which confirms the HHA's commitment to the RFP process as governed by chapter 42D, Hawaii Revised Statutes. A copy of the RFP form utilized by the HHA is also attached. See Attachment 2.

3. HUD inquired as to whether the contract attached to the HAS as Exhibit "N" is enforceable and binding. An opinion by the State Attorney General was suggested.³

HHA Response: Please include with Exhibit "N" the February 12, 1998, opinion issued by the AG which states that the form and content of the proposed contract is appropriate, and concludes that the contract would be enforceable. This opinion is attached hereto and marked as Exhibit "N-1." See Attachment 3.

4. HUD inquired as to how the HHA can function as the umbrella agency and also as an NOI, and thus "contract with itself."⁴

HHA Response: The HHA, through its Homeless Programs Branch, administers state and federal homeless programs. The Homeless Programs Branch does not directly administer or operate homeless shelters or programs. It primarily contracts with private provider agencies for services and shelter to the homeless as provided for in §358D-8, Hawaii Revised Statutes, which states in relevant part, "[t]o the extent that appropriations are made available, the authority may contract with a provider agency to administer homeless facilities, or any other program for the homeless[.]"

The NOI submitted on behalf of the HHA was intended to secure facilities that may provide cost-effective venues for service to the homeless by

³ Referenced in items 3, 4, 6c-e of the March 4, 1998, facsimile.

⁴ Referenced in item 5 of the March 4, 1998, facsimile.

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May 1, 1998
Page 5

private provider agencies. Based upon the statutory role of the HHA, which was clarified during the March 4, 1998, meeting, you indicated that the above-stated inquiry was no longer an issue.

C. Update to Information Regarding the 65-Acre Portion of the HAS

As stated earlier in this letter, subsequent to the February 17, 1998, submission of the HAS, the BPNAS Redevelopment Commission voted to delete the plan for the 65-acre wilderness area designated for a phased in development. The 65-acre development plan is discussed in Section II.C, on page six (6) of the HAS. The primary reasons for the deletion include the following:

1. The Department of Health, State of Hawaii, Environmental Health Administration (DOH), expressed opposition to residential development in the area due to atmospheric hazards posed by the proximity to Campbell Industrial Park. The DOH has continued to express this concern prompted by the breakdown of refineries in nearby parcels;
2. State and county fiscal constraints prevent financial commitment to substantial infrastructure costs necessary for the development of low-income rentals and community housing projects; and
3. The undeveloped 65 acres would require twenty (20) years to fully develop and utilize.

Pursuant to these concerns a request to delete the 65 acres was submitted to the BPNAS Redevelopment Commission December 11, 1997. The following excerpts from minutes of the Commission meeting reflect the action taken:

**IV. Committee Reports
A. Executive Committee**

Chair Rick Egged reported on the proposed changes to the BPNAS Community Redevelopment Plan, the results of the public hearing on the proposed changes and the Executive Committee's recommendation for consideration by the Commission:

1. Proposed deletion of the 65-acre parcel from Homeless Application and replanning for its use.

The 65-acres should be withdrawn from the Homeless Application. Due to the public testimony regarding the continuing need for low income rental housing due to DHHL's request for all 65 acres; and due to the community testimony favoring DHHL

Mr. William Poythress
May 1, 1998
Page 6

assuming the 65-acres for residential use, the Executive Committee recommends that the Residential Use be continued. (See Minutes BPNAS Redevelopment Commission Meeting, December 11, 1997, at p. 4).

....

VII. Decision Making

A. Proposal to remove 65-acre land parcel from the Homeless Application and replan its use.

An initial motion was made by Commissioner Kail Watson to redesignate the 65-acre parcel to be removed from the Homeless Application, and to designate 5 acres of the parcel to low income rental housing with a 60 day review period by the respective Federal agency for non profit/agency applications.

....

ACTION: (m/s/p) Motion made by Commissioner Kail Watson, seconded by Commissioner Maeda Timson that the BPNAS Redevelopment Commission accept the removal of the 65-acre parcel from the Homeless Application and place for reconsideration. Motion carried. (See Minutes BPNAS Redevelopment Commission Meeting, December 11, 1997, at p. 9).

The HAS indicates that three agencies (HHA, City and County of Honolulu, and Hawaii Habitat for Humanity) had submitted NOIs and were to be accommodated by the 65-acre wilderness. An investigation into alternatives was conducted by the HHA and homeless providers, including all of the NOIs, which resulted in revisions to the 13-acre downtown master plan. The revisions would include an affordable rental housing option in the long range plan for one portion of the property. In addition, the LRA elected to set aside five (5) of the 65 acres for low rent housing as a public benefit transfer. The City and County of Honolulu has submitted a letter of interest. Also, the HHA has listed rental housing in its NOI. The inclusion of a rental housing option in the 13-acre downtown master plan in addition to the five (5) acres set aside by the BPNAS Redevelopment Commission, accommodates the proposals submitted by the City and County of Honolulu and the HHA.

With respect to the "self-help housing" proposal submitted by Hawaii Habitat for Humanity, it was agreed that the proposal is not suitable for the downtown area. Hawaii Habitat for Humanity seeks warehouse space and land for its self-help housing. In order to accommodate Hawaii Habitat for Humanity's NOI, an investigation is presently being conducted in conjunction with the State's land bank to explore options as to available land outside Barbers Point. In addition, the Department of Hawaiian Home Lands (DHHL) has agreed to make available to Hawaii Habitat for Humanity adequate warehouse space at Barbers

Mr. William Poythress
May 1, 1998
Page 7

Point. From my discussions with BPNAS Redevelopment Commissioner Kali Watson, who also serves as DHHL Chair, I understand that concerted efforts will be made to address Hawaii Habitat for Humanity's request.

This update is being provided to verify that despite the HHA's recommendation and the BPNAS Redevelopment Commission's action to delete the 65 acres from the HAS, the organizations which originally submitted NOIs are being accommodated.

D. Conclusion

I anticipate that this comprehensive overview and the attached supporting documents now provide HUD with the information necessary to expeditiously complete final approval of the HAS. May I express my appreciation for your efforts and dedication in this matter. It has been a pleasure and an enriching experience working with you and Ms. Nicholas, who continues to generously share her professional expertise and technical guidance with my staff.

Sincerely,



Sharon R. Yamada
Executive Director

Attachments

c: Ms. Patty A. Nicholas, HUD/CPD
Mr. Rick Egged, Chairman, BPNAS Redevelopment
Commissioner, Director, OSP
Mr. Roger Au, Base Transition Coordinator, BPNAS
Mr. William Bass, Executive Director, BPNAS Redevelopment
Commission

BENJAMIN J. CAYETANO
GOVERNOR



S.R. YAMADA
EXECUTIVE DIRECTOR

SHARYN L. MIYASHIRO
DEPUTY EXECUTIVE DIRECTOR

STATE OF HAWAII
DEPARTMENT OF HUMAN SERVICES
HAWAII HOUSING AUTHORITY
P.O. BOX 17907
HONOLULU, HAWAII 96817

FAX: (808) 832-6030

IN REPLY REFER TO
97:PLNGA\024

August 4, 1997

U.S. Department of Housing & Urban Development
Community Planning and Development Division
ATTN. Patty Nicholas
Seven Waterfront Plaza
500 Ala Moana Blvd.
Honolulu, Hawaii, 96813

Dear Ms. Nicholas:

Subject: "STATE OF HAWAII'S BARBERS POINT SUBMISSION PLAN"

As you are aware, the Hawaii Housing Authority (HHA) has been delegated by the Office of State Planning (OSP) with the Homeless Submission Component of the Barbers Point Redevelopment Plan. A completed facilities and program plan meeting all components of the HUD's Homeless Submission Guidebook was approved by Governor Cayetano and submitted via the OSP and the Barbers Point Redevelopment Commission to HUD's Washington Community Development Coordinator.

Throughout the ninety day review and evaluation period set by HUD, there has been on-going dialogue and discussions among Mr. Bill Poythress, Mr. Frank O'Brien, Mr. Roger Au, HUD's local office and the HHA on further issues. Additionally, a telephonic conference involving Cheryl Soon, Bob Agres, Keith Ishida, and Gail Kaito from the City and County of Honolulu, and myself was also coordinated by Mark Chandler and Chin Woo Chiu with Mr. Poythress.

The most recent discussion on July 17, 1997, have included yourself, Brad Mossman, Ron Lim, Rick Egged, Georgiana Yuen, Bob Agres and myself. Bill Bass was unavailable for this session. At this time, HUD expressed its concerns with respect to the 65 acres of undeveloped lands which had been designated for homeless programs by the Commission. A timeline for modifications that needed to be addressed in the homeless submission plan was discussed. The understanding given by you to all parties was that a modified plan would be necessary and that 13 acres of the downtown area was likely to be approved, predicated upon further requirements being met.

The additional requirements imposed by HUD due to the proposed modifications to the Homeless Submission Plan include;

1. An informational briefing to be conducted by the HHA with all provider agencies and governmental agencies involved in the submission of Notification of Interests (NOI);
2. This briefing would cover recommendations made by OSP and HHA to submit an application for 13 acres instead of the original 78 acres due to the concerns raised by HUD which includes, among other things;
 - a) Difficulties in obtaining Congressional approval for the 78 acres of land for homeless as most of the reuse plans submitted to HUD from across the nation have addressed only a few acres of land for homeless programs, and
 - b) The issue of the placement of a high concentration of homeless families and poverty in a community.
3. Following the briefing, written commitments of support are required from these providers for the modified acreage designated in the Homeless Submission.
4. Due to the timeline necessary to reconvene the Reuse Commission, any testimony by the HHA recommending the modification to the Homeless Submission Plan would be presented to the newly formed Barbers Point Naval Air Station Redevelopment Commission ("Commission") on its October, 1997 agenda.
5. HUD's re-use coordinator, Bill Poythress will be requesting for a limited extension of time to the Secretary of HUD to modify Hawaii's Homeless Submission Plan. The extension requested will be until December 31, 1997.

At this time, I would like to take this opportunity to memorialize the criteria presented by HUD as a guideline for obtaining approval for the transfer of federal lands for homeless usage and which was utilized by the HHA when it prepared the initial Homeless Submission:

The HUD Re-Use Guidebook provides in part as follows;

“Secretary Cisneros designates addressing homelessness through permanent solutions as HUD’s top priority. To that end, the Department has worked toward achieving this goal by encouraging a community based process that provides a comprehensive response to the homeless population’s different needs. This approach - Continuum of Care - assesses needs, inventories resources, identifies gaps, and coordinates public and private resources to fill in the gaps and avoid duplication. Sections in the Consolidated Plan are devoted to the needs, inventory of resources, in the homeless Continuum of Care.

A local Continuum of Care plan submitted to HUD typically includes the following components:

- Outreach and assessment to identify an individual’s or family’s needs and make connections to facilities and services.
- Immediate shelter and safe, decent alternatives to the streets.
- Transitional housing and necessary social services to include job training and placement, substance abuse treatment, short term mental health services and independent living skills.
- Permanent housing or permanent supportive housing arrangements.

The continuum of Care model is predicated on the concept that homelessness is not caused simply by a lack of shelter but rather is typically a symptom of a series of unmet needs to help a homeless individual or family move toward self-sufficiency, a comprehensive system of housing and supportive services is imperative.”

HUD’S Guidebook on Military Base Reuse and Homeless Assistance by the U.S. Department of Housing & Urban Development, Office of Community Planning & Development, March 1996. (Emphasis Added)

Therefore, the HHA had prepared the Homeless Assistance Submission in strict adherence to the stated requirements of the Re-Use Guidebook. The Guidebook also mandates that the Local Redevelopment Authority (LRA) should attempt to ensure that the reuse activities proposed by homeless assistance providers are coordinated with the existing Continuum of Care. The Continuum of

Care in the Consolidated Plan of the City and County of Honolulu identified that the gaps in this continuum are from the transitional to permanent housing components.

It is again very critical to emphasize that the allocation of the additional sixty five (65) acres of undeveloped remote lands in the northwest section of the Barbers Point master plan occurred at the final hearing of the Redevelopment Commission in August of 1996. The sixty five acres included 15 acres for self-help housing and 50 acres for low income rental units. Therefore, despite very severe time constraints placed upon the State of Hawaii, the Homeless Submission was completed and the plan submitted by the HHA addressed all components required in the continuum of the care.

By way of review, the Continuum of Care addressed the following in the State of Hawaii's Barbers Point Homeless Submission:

The Continuum of Care

1. Identified Priorities

The Homeless Task Force created by the Redevelopment Commission identified the following high priority needs in the continuum of care which are supported by the Notifications of Interest (NOIs) submitted:

- Chemical dependency rehabilitation programs and halfwayhouse rehabilitation programs (NOIs were received from Waianae Coast Comprehensive Health Center and the HHA);
- Transitional housing for special needs homeless (NOIs were received from the HHA, the City & County of Honolulu, Helping Hands Hawaii, Steadfast Housing Development Corporation, and Homeless Women & Children Crisis Intervention);
- Low Income rental housing/permanent housing (NOIs were received from the HHA, Steadfast Housing Development corporation, City & County of Honolulu, Hawaii Habitat for Humanity);
- Vocational education facilities (West Oahu Employment Corp., HHA, Hawaii Habitat for Humanity).

2. Downtown area (13 acres)

Immediate plans for the completion of the renovation of the existing four buildings located within the 13 acres and which will house the following programs:

- a) Intake and coordinated referral service;
- b) Life and wellness center consisting of transitional housing for homeless with medical needs and treatments programs;
- c) Transitional housing in the barracks buildings which will provide separate temporary shelters for homeless singles and families and social services;
- d) Pre-vocational programs such as apprenticeship, basic education, and driver's training;
- e) Primary health care clinic to serve the homeless in all areas of health management; and
- f) Nonprofit offices and service centers.

3. Wooded areas (65 acres)

The 65 acres of wooded area would have included the following facilities:

- a) 15 acres of Self Help Housing targeting homeless and hidden homeless and involves a housing homeownership program designed to provide ownership opportunities for homeless;
- b) Low income housing for families with less than 80% of the median income, which includes a phase in component predicated upon needs;
- c) A commercial center offering job training and needed commercial services to support the community and;
- d) An agricultural park to provide economic training opportunities for the residents.

The Continuum of Care as described above is tailored to address the diagrammatic components pursuant to HUD's Re-Use guidebook, Section 3, and which is attached hereto and identified as Exhibit "9".

Additionally, the six basic components of the Homeless Assistance Submission required by HUD's guidebook called for the following:

1. Outreach efforts
2. Homeless needs assessments in the vicinity for the installation;
3. Notices of interests received from homeless assistance providers;
4. Legal binding agreements with service providers
5. Additional issues involving the balance of economic development and other development and homeless assistance; and
6. Public comment from the community at large regarding the homeless component.

PLAN'S MODIFICATIONS

The current recommendations by HUD's Community Planning and Development Division base transitional coordinator in Washington, DC and HUD's Honolulu area office are as follows:

Approval will be granted for portions of the State's Homeless Submission plan without approval of the remaining parts, which include the 65 acres of wooded areas. As reiterated earlier, the basis for this decision includes the following concerns, which had been earlier discussed with the HHA:

1. HUD's difficulties in obtaining Congressional approval for the large amount of acreage;
2. Considerable financial concerns which needs to be addressed for consideration of the transfer of the acreage which would require a submission of a business plan. This plan would need to include a time frame for development of the undeveloped areas and a significant commitment by the State of Hawaii to pay an equivalent value of any undeveloped acreage to the Department of Defense in the event that there was insufficient capital to complete the plan;
3. A strategic funding plan requiring approval by the Commission;
4. The need for an affirmative plan of action to address the social and economic concerns of having this large concentration of low to very low income families in one area;
5. Identification of physical facilities, general community needs including medical facilities and parks; and

6. Whether an integration of the 13 acres and the 65 acres of undeveloped acres fits into the entire community.

In summary, based upon the meeting at your office, the focal discussions centered upon the concerns of HUD regarding the 65 wooded acres of undeveloped land and the recommendations for the HHA to present modifications of the Homeless Submission Plan to the reuse Commission at its October, 1997 meeting. The major modification would be the elimination of the 65 wooded acres of land from the Homeless Submission. The designation of these lands was by commission action and will require Commission action in the deletion of these lands. During the limited extension of time granted by HUD to December 31, 1997, the HHA will proceed with the directives discussed at this critical meeting.

At this time, the HHA would like to confirm its understanding that the requirements set forth in the Re-Use Guidebook of permanent housing and permanent supportive housing are no longer required in this Modified plan which includes the 13 acres only. As you are aware the issue of permanent housing was addressed in the proposed plan for the 65 acres. It is our understanding that the approval process will proceed on the Downtown 13 acres portion of the Homeless Submission even though the permanent housing element is not included within it.

I look forward to hearing from your office in the very near future. Timelines for the informational briefing to the providers of the NOI will be forwarded shortly.

Sincerely,



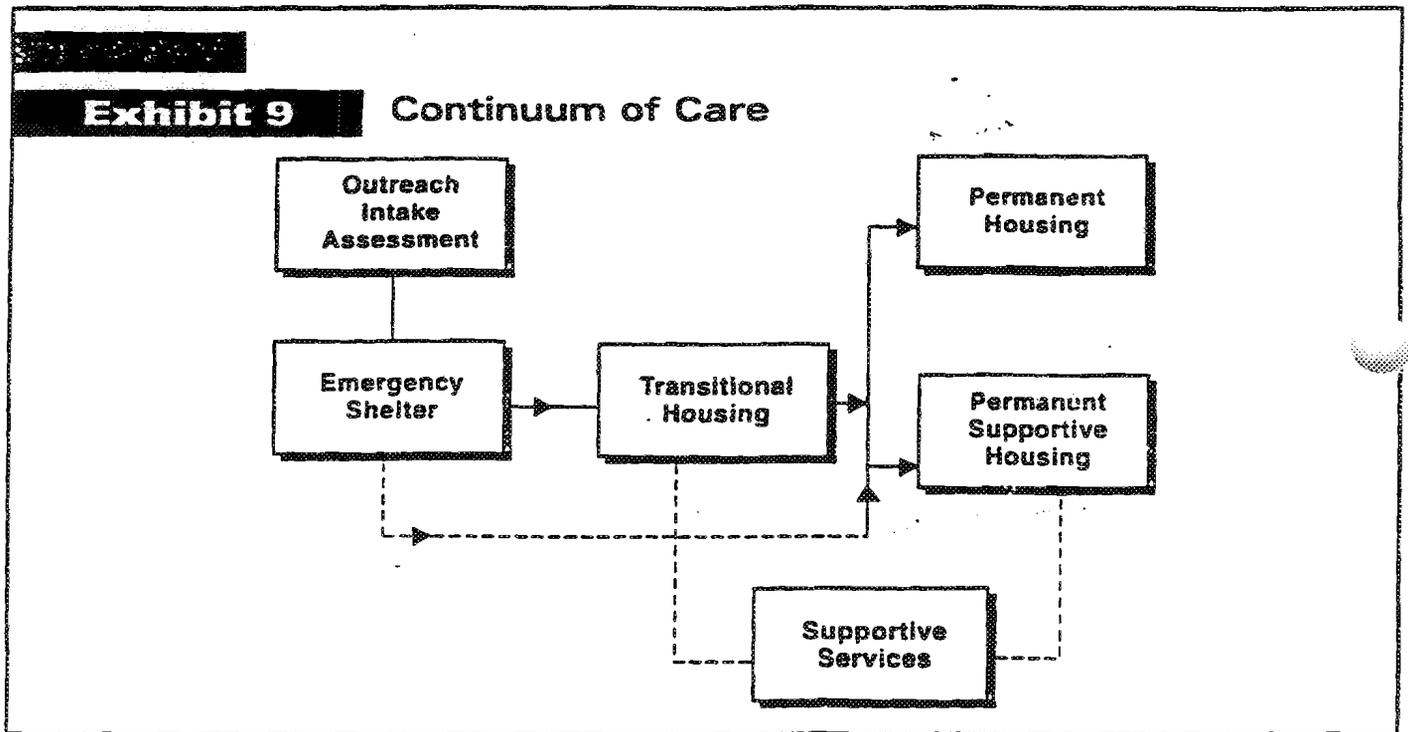
SHARON R. YAMADA
Executive Director

Enclosures

- cc: Mr. Bill Poythress, HUD CPD/Washington, D.C.
Mr. Rick Egged, Office of State Planning
Mr. Brad Mossman, Department of Business and
Economic Development and Tourism
Mr. Ron Lim, Sp. Assistant for Housing, Governor's Office
Mr. Roger Au, Department of Defense
Mr. Bill Bass, Executive Director Re-Use Commission

SR/ML:dc

Section 3





U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, D.C. 20410-7000

OFFICE OF THE ASSISTANT SECRETARY
FOR COMMUNITY PLANNING AND DEVELOPMENT

JAN 13 1996

Hon. Benjamin J. Cayetano
Governor of Hawaii
State Capital
415 South Beretania Street
Honolulu, HI 96813

Dear Governor Cayetano:

I am pleased to inform you that the Department of Housing and Urban Development (HUD) has approved your base reuse plan for the Naval Air Station Barbers Point (Honolulu) under the Base Closure Community Redevelopment and Homeless Act of 1994. This means that you can now move forward with implementing your plan.

Specifically, we have determined that the plan meets the requirements under the Act regarding outreach to homeless assistance providers and balancing the economic development, other development, and homeless needs of your community. We are pleased that the Local Redevelopment Authority and the homeless providers agreed on a mutually acceptable arrangement that is reflected in the legally binding agreements.

Congratulations on your success in balancing the diverse needs of your community. I wish you continued success in implementing your base reuse plan. If we can be of any further assistance to you, please contact Mark Chandler at (808) 522-8180 in our Hawaii State Office.

Sincerely,

Joseph A. D'Agosta
Acting General Deputy
Assistant Secretary

Appendix A-2

NOTICE OF INTENT (NOI)



DEPARTMENT OF THE NAVY

OFFICE OF THE JUDGE ADVOCATE GENERAL

200 STOVALL STREET

ALEXANDRIA, VA 22332-2400

IN REPLY REFER TO

5000

Ser 13/3FR11285.97

March 20, 1997

Mr. Richard Claypoole
Director
Office of the Federal Register
National Archives and Records Administration
Washington, DC 20408

Dear Mr. Claypoole:

Enclosure (1) contains three originals of a Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Disposal and Reuse of Land and Facilities at Naval Air Station Barbers Point, Hawaii. You may use enclosure (2), a 3 1/2 inch WordPerfect diskette, for processing this publication. The document is named "BARBERS.TXT" and I certify that this is a true copy of the original documents.

In the interest of economy, we have not included the "AGENCY" and "ACTION" lines in this document as it is not a rule or proposed rule. Please process as soon as possible. If you have any questions, please call me at (703) 614-1781.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Roenig".

DONALD E. ROENIG
LCDR, JAGC, USN

Federal Register Liaison Officer

- Enclosures:
1. Three originals of a Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Disposal and Reuse of Land and Facilities at Naval Air Station Barbers Point, Hawaii
 2. 3 1/2 inch WordPerfect diskette

BILLING CODE 3810-FF-P

DEPARTMENT OF DEFENSE

Department of the Navy, DoD

Notice of Intent to Prepare an Environmental Impact Statement for
the Proposed Disposal and Reuse of Land and Facilities at Naval
Air Station Barbers Point, Hawaii

SUMMARY: Pursuant to Section 102(2)(c) of the National
Environmental Policy Act (NEPA) of 1969, as implemented by the
Council on Environmental Quality regulations (40 CFR Parts 1500-
1508), the Navy announces its intent to prepare an Environmental
Impact Statement (EIS) for the proposed disposal and reuse of
land and facilities at Naval Air Station (NAS) Barbers Point,
Hawaii. The Navy is the lead agency for the NEPA documentation,
and the U.S. Department of Transportation, Federal Aviation
Administration (FAA) is the cooperating agency. The EIS will be
prepared in compliance with the 1993 Base Realignment and Closure
(BRAC) directive from Congress to close NAS Barbers Point. The
property will be disposed of in accordance with the provisions of
the Defense Base Closure and Realignment Act (Public Law 101-510)
of 1990 as amended, and applicable federal property disposal
regulations. NAS Barbers Point will close in July 1999.

The proposed action is the disposal of approximately 2,100
acres of property on NAS Barbers Point. The EIS will address
long-term plans for reuse of this property. Potential long-term
reuse alternatives have been identified by the Local Reuse
Authority (LRA), i.e., the State of Hawaii, through a planning

process carried out by the NAS Barbers Point Redevelopment Commission. The reuse plan was approved by the Governor of Hawaii on January 23, 1997.

Excluded from consideration in this EIS are the areas being retained by the Navy, Coast Guard, National Guard, and the Federal Aviation Administration. The Navy is retaining family housing and support facilities, the commissary, the Public Works Center compound, the biosolids treatment and disposal facility, the golf course, and portion of the beach recreation areas.

The EIS will analyze potentially significant impacts of the LRA's reuse plan and reasonable alternatives. The LRA's reuse plan features a general reliever airport with a crosswind runway and large areas devoted to park and recreation use. Sites are provided to the Department of Hawaii Home Lands for residential, commercial, and industrial uses. Commercial activities would include a raceway complex, marine park, and festival center. Lands are also set aside to accommodate homeless providers. Various infrastructure improvements would be required to support the redevelopment, including roadways, water distribution, sanitary sewer, storm drainage, telephone, and electrical systems.

During its planning process, the LRA considered numerous scenarios and narrowed them down to three options: two with a general reliever airport and one without an airport. The basic difference between the two airport scenarios is size. The "maximum airport" alternative has a cross-runway configuration on

more than 800 acres, while the "minimum airport" scenario calls for a single runway airport on approximately 550 acres. The no airport scenario designates the majority of land (more than 1,000 acres) to park and recreation use. The "no action" alternative assumes no reuse improvements and continued closure of the lands to the public.

Environmental issues to be addressed will include, but not be limited to, land use conflicts and constraints such as noise, air quality, traffic, aviation operations, potentially contaminated sites, functional compatibility of operations, potential impacts of redevelopment on cultural and natural resources, adequacy of infrastructure and public services, and socioeconomic impacts. Direct, indirect, and cumulative impacts will be analyzed. Mitigation measures will be developed as required.

ADDRESSES: The Navy will initiate a scoping process to identify potentially significant issues to be studied in the EIS, and to identify and notify interested and affected parties relative to this action. Two public scoping meetings will be held, one on Wednesday, April 16, 1997 at Washington Intermediate School Cafeteria, 1633 South King Street, Honolulu, HI 96826; and a second on Thursday, April 17, 1997 at the Lauhala Room, Paradise West Club, NAS Barbers Point. Both meetings will start at 7:00 pm. Each meeting will open with a short presentation on the purpose of the action and the alternatives to be evaluated, followed by a period for public comment. It is important that

interested agencies, individuals, and organizations take this opportunity to clearly describe specific issues or topics that the EIS should address. To allow time for all views to be shared, each speaker will be limited to three minutes. Written statements may also be submitted at the meetings.

FOR FURTHER INFORMATION CONTACT: Written statements and/or questions regarding the scoping process should be mailed no later than Wednesday, April 30, 1997 to Mr. Fred Minato (Code 231), Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, HI 96860-7300, telephone (808) 471-9338; fax (808) 474-4890.

3/20/97
Dated

D. E. KOENIG
LCDR, JAGC, USN,
Federal Register Liaison Officer.

Appendix A-3

NOTICE OF AVAILABILITY OF
PUBLIC HEARINGS FOR THE DEIS

[Federal Register: September 11, 1998 (Volume 63, Number 176)]
[Notices]
[Page 48716-48717]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr11se98-53]

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Availability and Public Hearings for the Draft
Environmental Impact Statement (DEIS) for Disposal and Reuse of Naval
Air Station, Barbers Point (NASBP), HI

AGENCY: Department of the Navy, DOD.

ACTION: Announcement of public meeting.

SUMMARY: The Department of the Navy (Navy) and its cooperating agency, the Federal Aviation Administration, has prepared and filed with the Environmental Protection Agency the Draft Environmental Impact Statement (DEIS) for Disposal and Reuse of Naval Air Station, Barbers Point, HI (NASBP). Two public hearings will be held for the purpose of receiving oral and written comments on the DEIS. Federal, state and local agencies, and interested individuals are invited to be present or represented at the meetings.

DATES: Hearing dates are:

1. October 5, 1998, 7:00 p.m., Kapolei, HI
2. October 7, 1998, 7:00 p.m., Honolulu, HI

ADDRESSES: Hearing locations are:

1. Kapolei--James Campbell Building, Laulima Room, 1001 Kamokila Boulevard, Kapolei, HI
2. Honolulu--Washington Intermediate School, 1663 South King Street, Honolulu, HI

FOR FURTHER INFORMATION CONTACT: Mr. Fred Minato (Code 231PM), (808) 471-9338.

SUPPLEMENTARY INFORMATION: Pursuant to the Council on Environmental Quality regulations (40 CFR Parts 1500-1508) that implement the procedural provisions of the National Environmental Policy Act (NEPA), the Department of the Navy (Navy) and its cooperating agency, the Federal Aviation Administration, has prepared and filed with the U.S. Environmental Protection Agency the DEIS for Disposal and Reuse of NASBP. This notice announces the availability of the DEIS and the dates and locations of the public hearings.

The proposed action is the disposal of surplus Navy property for subsequent reuse and redevelopment, in accordance with the 1990 Defense Base Closure and Realignment Act, and the 1993 Base Closure and

Realignment Commission recommendations. NASBP will be closed on July 2, 1999. Of the 3,722 acres (1,507 hectares) of land at NASBP, Navy is retaining about 1,130 acres (457.7 hectares) and approximately 492 acres (199 hectares) are being transferred to other federal agencies. The remaining 2,100 acres (850 hectares) of base closure property have been declared surplus and are the focus of this DEIS.

The DEIS evaluates four reuse alternatives, each emphasizing various types of development, e.g., residential, light industrial, recreational, and commercial. Three of the alternatives include a general aviation reliever airport. A fifth alternative, No Action, assumes the existing airport would not be used and, along with other surplus land (land not being retained by Navy or other federal agencies), would be retained by Navy in caretaker status. The plan approved by the Barbers Point Naval Air Station Redevelopment Commission, the State and Navy's preferred alternative, includes the following major elements: general aviation reliever airport for Honolulu International Airport, large areas for park and recreational uses, and areas for commercial/private recreation, light industrial, residential, and homeless providers. No decision on the proposed action will be made until the NEPA process has been completed.

The DEIS analyzes potential environmental impacts to land use and airspace, visual resources, socioeconomic, cultural resources, traffic and circulation, air quality, noise, biological resources, water resources, utilities and services, public health and safety, and hazardous materials and waste. No significant environmental impacts are anticipated from the proposed action with the exception of infrequent and severe traffic conditions resulting from major events at special attractions (e.g., motor sports raceway complex) which may occur several times a year. Other potentially significant, but mitigable, environmental impacts include impacts to biological resources, cultural resources, and public safety.

A Notice of Intent to prepare the EIS was published in the Federal Register on March 26, 1997 and two public scoping meetings were held on April 16 and April 17, 1997. A Notice of Availability of the DEIS was published in the Federal Register on August 28, 1998.

The DEIS has been distributed to affected Federal, state, and local agencies, and interested parties. In addition, copies of the DEIS are available for review at Ewa Beach Public and School Library, and Hawaii State Main Library.

Two public hearings will be held to inform the public of the DEIS findings and to solicit and receive oral and written comments. The first hearing will be held at 7:00 p.m. on October 5, 1998, at the James Campbell Building, Laulima Room, 1001 Kamokila Boulevard, Kapolei. The second hearing will be held in the cafeteria of Washington Intermediate School, 1663 South King Street, Honolulu, at 7:00 p.m. on October 7, 1998. Federal, state, and local agencies, and interested individuals are invited to be present at the hearings. Oral comments will be heard and transcribed by a court recorder; written comments are also requested to ensure accuracy of the record. All comments, both oral and written, will become part of the official record. In the interest of available time, each speaker will be asked to limit oral comments to three minutes. Longer comments should be summarized at the public hearing and submitted in writing either at the hearing or mailed to Mr. Fred Minato (Code 231FM), Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawaii 96860-7300, facsimile (808) 474-5909. Written

[[Page 48717]]

comments are requested not later than October 12, 1998.

Dated: September 8, 1998.
Ralph W. Corey,
LCDR, JAGC, USN, Federal Register Liaison Officer.
[FR Doc. 98-24424 Filed 9-10-98; 8:45 am]
BILLING CODE 3810-FF-P

Appendix A-4

DEIS DISTRIBUTION LIST

DISTRIBUTION OF DEIS

TITLE	FIRST NAME	LAST NAME	ORGANIZATION	CITY	STATE
FEDERAL AGENCIES					
Commanding General			Marine Corps Base Hawaii Kaneohe Bay	Kaneohe Bay	HI
Commanding Officer			Department of the Navy Naval Air Station Barbers Point	Barbers Point	HI
Commander			Department of the Navy Naval Base	Pearl Harbor	HI
Commanding Officer			Department of the Navy Naval Station	Pearl Harbor	HI
Commanding Officer			Department of the Navy Public Works Center	Pearl Harbor	HI
	David	Welhouse	Federal Aviation Administration	Honolulu	HI
	George	Antonelis	National Marine Fisheries Service	Honolulu	HI
Commanding Officer			Naval Computer and Telecommunications	Wahiawa	HI
Base Transition Coordinator	Roger	Au	Naval Air Station Barbers Point DOD Base Transition Office	Barbers Point	HI
	Don	Klima	Office of Planning Review	Lakewood	CO
Federal Project Manager	Mark	Braly	Office of Economic Adjustment	Sacramento	CA
DOD Liaison	Felicia	Snowden	Office of the Secretary of Defense PBTS Office of Economic Adjustment	Arlington	VA
Commander and Division Engineer			U.S. Army Corps of Engineers	Fort Shafter	HI
	Catherine	Schagh	U.S. Department of Education Office of Elementary and Secondary Education	Washington	DC
Senior Realty Specialist	Eula	Samuels	U.S. Department of Health and Human Services Division of Property Management	Rockville	MD
	Gordon	Furutani	U.S. Department of Housing and Urban Development	Honolulu	HI

TITLE	FIRST NAME	LAST NAME	ORGANIZATION	CITY	STATE
Director	Patty	Nicholas	U.S. Department of Housing and Urban Development Community Planning and Development	Honolulu	HI
District Chief	William	Meyer	U.S. Department of the Interior Geological Survey Water Resources Division	Honolulu	HI
Superintendent	G. Bryan	Harry	U.S. Department of the Interior National Park Service	Honolulu	HI
Program Coordinator	Gary	Munsterman	U.S. Department of the Interior National Park Service	San Francisco	CA
	Patricia	Sanderson Port	U.S. Department of the Interior Office of Environmental Policy and Compliance	San Francisco	CA
Director	Willie	Taylor	U.S. Department of the Interior Office of Environmental Policy and Compliance	Washington	DC
Commander			U.S. Department of Transportation Coast Guard	Honolulu	HI
Division Administrator	Abraham	Wong	U.S. Department of Transportation Federal Highway Administration	Honolulu	HI
Manager Airports District Office	Howard	Yoshioka	U.S. Department of Transportation Federal Aviation Administration	Honolulu	HI
	David	Farrell	U.S. Environmental Protection Agency Region IX	San Francisco	CA
	Deanna	Wieman	U.S. Environmental Protection Agency Region IX	San Francisco	CA
Head of NEPA Compliance Division	William	Dickerson	U.S. Environmental Protection Agency EIS Filing Section	Washington	DC
ECO Region Manager	Robert	Smith	U.S. Fish and Wildlife Service Pacific Islands Office Ecological Services	Honolulu	HI
Commander In Chief			U.S. Pacific Fleet	Pearl Harbor	HI
	Rick	Velasquez	Veterans Administration	Honolulu	HI
U.S. CONGRESS					
Congressman	Neil	Abercrombie	U.S. House of Representatives	Honolulu	HI
Congresswoman	Patsy	Mink	U.S. House of Representatives	Honolulu	HI
Senator	Daniel	Akaka	U.S. Senate	Honolulu	HI
Senator	Daniel	Inouye	U.S. Senate	Honolulu	HI

TITLE	FIRST NAME	LAST NAME	ORGANIZATION	CITY	STATE
STATE OF HAWAII					
Chairperson	Mike	Wilson	Board of Land and Natural Resources	Honolulu	HI
Deputy Attorney General	Diane	Taira	Department of the Attorney General	Honolulu	HI
Executive Director	Roy	Oshiro	Department of Budget and Finance Housing Finance and Development Corporation	Honolulu	HI
Director	Seiji	Naya	Department of Business Economic Development and Tourism	Honolulu	HI
	Colin	Yasukochi	Department of Business Economic Development and Tourism Hawaii Community Development Authority	Honolulu	HI
Executive Director	Jan	Yokota	Department of Business Economic Development and Tourism Hawaii Community Development Authority	Honolulu	HI
Director	Rick	Egged	Department of Business Economic Development and Tourism Office of Planning	Honolulu	HI
Director	Kathryn	Matayoshi	Department of Commerce and Consumer Affairs	Honolulu	HI
BG	Edward	Correa, Jr.	Department of Defense	Honolulu	HI
General	Edward	Richardson	Department of Defense Adjutant General	Honolulu	HI
Superintendent	Paul	LaMahieu	Department of Education	Honolulu	HI
			Department of Education Ewa Beach Public and School Library	Honolulu	HI
Director	Caroline	Spencer	Department of Education Hawaii State Library	Honolulu	HI
Director	Kali	Watson	Department of Hawaiian Home Lands	Honolulu	HI
Senior Planner	Joseph	Chu	Department of Hawaiian Home Lands Planning Office	Honolulu	HI
	Darrell	Yagodich	Department of Hawaiian Home Lands Planning Office	Honolulu	HI
Director	Lawrence	Miike	Department of Health	Honolulu	HI

TITLE	FIRST NAME	LAST NAME	ORGANIZATION	CITY	STATE
Deputy Director	Rae	Loui	Department of Land and Natural Resources Commission on Water Resource Management	Honolulu	HI
Chair	Phyllis	Coochie Cayan	Department of Land and Natural Resources Island Burial Council Island of Oahu	Honolulu	HI
Administrator	Don	Hibbard	Department of Land and Natural Resources SHPD	Honolulu	HI
Administrator	Ralston	Nagata	Department of Land and Natural Resources State Parks Division	Honolulu	HI
Acting Director	Cora	Lum	Department of Public Safety	Honolulu	HI
Director	Kazu	Hayashida	Department of Transportation	Honolulu	HI
Deputy Director	Brian	Minaai	Department of Transportation	Honolulu	HI
Planning Engineer	Darrell	Young	Department of Transportation Airports Division	Honolulu	HI
Administrator	Jerry	Matsuda	Department of Transportation Airports Division	Honolulu	HI
General Aviation Officer	Morris	Tamanaha	Department of Transportation Airports Division Honolulu International Airport	Honolulu	HI
Representative	Paul	Oshiro	Ewa Ewa Beach Waipahu District 41	Honolulu	HI
Representative	Mark	Moses	Ewa Kunia Makakilo District 42	Honolulu	HI
Representative	Michael	Kahikina	Nanakuli Maile Waianae District 43	Honolulu	HI
Senator	Brian	Kanno	Ewa Beach Makakilo Waipahu District 20	Honolulu	HI
Senator	Calvin	Kawamoto	Pearl City Waipahu District 19	Honolulu	HI
Executive Director	Sharon	Yamada	Hawaii Housing Authority Department of Human Services	Honolulu	HI
Director	Gary	Gill	Office of Environmental Quality Control	Honolulu	HI
Administrator	Randall	Ogata	Office of Hawaiian Affairs	Honolulu	HI
Civil Defense Planner	Ralph	Fronczkowski	State Department of Defense	Honolulu	HI
Director	John	Harrison	University of Hawaii Environmental Center	Honolulu	HI

TITLE	FIRST NAME	LAST NAME	ORGANIZATION	CITY	STATE
CITY AND COUNTY OF HONOLULU					
Manager and Chief Engineer	Clifford	Jamile	Board of Water Supply	Honolulu	HI
Chief Budget Officer	Malcom	Tom	Department of the Budget	Honolulu	HI
Director	Roy	Amemiya	Department of Budget and Fiscal Services	Honolulu	HI
Director	Abelina	Shaw	Department of Community Services	Honolulu	HI
Deputy Director	Roland	Libby, Jr.	Department of Design and Construction	Honolulu	HI
Administrator	Joseph	Reed	Department of Emergency Services	Honolulu	HI
Director	Kenneth	Sprague	Department of Environmental Services	Honolulu	HI
Director	Jonathan	Shimada	Department of Facility Maintenance	Honolulu	HI
Director	William	Balfour	Department of Parks and Recreation Services	Honolulu	HI
Deputy Director	Donna	Hanaiki	Department of Planning	Honolulu	HI
Director	Patrick	Onishi	Department of Planning	Honolulu	HI
Director	Jan	Sullivan	Department of Planning and Permitting	Honolulu	HI
Director	Cheryl	Soon	Department of Transportation Services	Honolulu	HI
Division Chief	Paul	Steffens	Department of Transportation Services Public Transit Division	Honolulu	HI
Fire Chief	Attilio	Leonardi	Honolulu Fire Department	Honolulu	HI
Police Chief	Lee	Donohue	Honolulu Police Department	Honolulu	HI
Mayor	Jeremy	Harris	Office of the Mayor	Honolulu	HI
Managing Director	Ben	Lee	Office of the Mayor	Honolulu	HI
Branch Chief	Lowell	Chun	Planning Department Community Planning Branch	Honolulu	HI
NEIGHBORHOOD BOARDS					
			Ewa Neighborhood Board No 23 Neighborhood Commission	Honolulu	HI

TITLE	FIRST NAME	LAST NAME	ORGANIZATION	CITY	STATE
			Makakilo Kapolei Honokai Hale Neighborhood Board No 34 Neighborhood Commission	Honolulu	HI
COMMUNITY/OTHER					
Compliance Investigator	Jonathan	Brown	Hawaii Carpenters Union Local 745	Honolulu	HI
	James	Burke		Makakilo	HI
	Leland	Chang		Honolulu	HI
	C.C.	Curry	SNA	Honolulu	HI
Executive Director	Henry	Curtis	Life of the Land	Honolulu	HI
CPA	Jack	Endo		Honolulu	HI
Manager, Land Planning	Henry	Eng	The Estate of James Campbell	Kapolei	HI
	Mike	Freitas		Kapolei	HI
	John	Geddie		Albuquerque	NM
Industrial Properties Manager	Susan	Graham	Campbell Estate	Kapolei	HI
President	Warren	Haruki	GTE Hawaiian Telephone Co. Inc.	Honolulu	HI
	Francis	Hirakami	Hawaiian Electric Co.	Honolulu	HI
Engineering Services Supervisor	Eric	Kashiwamura	The Gas Company	Honolulu	HI
	John	Kirkpatrick	SMS Research	Honolulu	HI
	John	Mackillop		Honolulu	HI
	Emogene	Martin	Ewa Neighborhood Board	Ewa Beach	HI
	William	Miller		Kailua	HI
President	Randolph	Moore	Kaneohe Ranch	Kailua	HI
Director of Corporate Communica- tions	Carl	Myatt	Hawaiian Electric Company	Honolulu	HI
	Kunani	Nihipali	Hui Maalama I Na Kupuna O Hawaii Nei	Haleiwa	HI
	Michael	Oakland		Waipahu	HI
	John	Sanders	Aries Consulting Ltd.	Morgan Hill	CA
	Mark	Tarone		Honolulu	HI

TITLE	FIRST NAME	LAST NAME	ORGANIZATION	CITY	STATE
	Maeda	Timson	Kapolei Makakilo Honokai Hale Neighborhood Board	Kapolei	HI
	Lavonne	West		Honolulu	HI
	James	Yamamoto	R M Towill Corp	Honolulu	HI
	Darrell	Young	Tesoro Hawaii	Honolulu	HI
			Urban Vision	Newport Beach	CA

BARBERS POINT NAS REDEVELOPMENT COMMISSION

BG EDWARD L CORREA JR [LISTED UNDER STATE OF HAWAII]

MR RICK EGGED [LISTED UNDER STATE OF HAWAII]

MR JACK ENDO [LISTED UNDER COMMUNITY/OTHER]

MR MIKE FREITAS [LISTED UNDER COMMUNITY/OTHER]

MS DONNA HANAIKE [LISTED UNDER CITY AND COUNTY OF HONOLULU]

MR KAZU HAYASHIDA [LISTED UNDER STATE OF HAWAII]

MR KEITH ISHIDA [LISTED UNDER CITY AND COUNTY OF HONOLULU]

MS GAIL KAITO [LISTED UNDER CITY AND COUNTY OF HONOLULU]

MR ROLAND LIBBY [LISTED IN CITY AND COUNTY]

MR BRIAN MINAAI [LISTED UNDER STATE OF HAWAII]

MR RALSTON NAGATA [LISTED UNDER STATE OF HAWAII]

MR SEIJI NAYA PHD [LISTED UNDER STATE OF HAWAII]

MR PATRICK ONISHI [LISTED UNDER CITY AND COUNTY OF HONOLULU]

GENERAL EDWARD V RICHARDSON [LISTED UNDER STATE OF HAWAII]

MR JONATHAN SHIMADA [LISTED UNDER CITY AND COUNTY OF HONOLULU]

MS CHERYL SOON [LISTED UNDER CITY AND COUNTY OF HONOLULU]

MS MAEDA TIMSON [LISTED UNDER COMMUNITY/OTHER]

MR KALI WATSON [LISTED UNDER STATE OF HAWAII]

MR MIKE WILSON [LISTED UNDER STATE OF HAWAII]

MR DARRELL YAGODICH [LISTED UNDER STATE OF HAWAII]

EX OFFICIO MEMBERS

CAPTAIN ROBERT F KERNAN
COMMANDING OFFICER
NAVAL AIR STATION
BARBERS POINT HI

REAR ADM WILLIAM G SUTTON USN
NAVAL BASE PEARL HARBOR
PEARL HARBOR HI

ADMINISTRATIVE STAFF

MR WILLIAM M BASS
EXECUTIVE DIRECTOR
BARBERS POINT NAS REDEVELOPMENT COMMISSION
KAPOLEI HI

MS KRISTELLE A U BATINO
SECRETARY
BARBERS POINT NAS REDEVELOPMENT COMMISSION
KAPOLEI HI

MS TOMI D CHONG
BARBERS POINT NAS REDEVELOPMENT COMMISSION
KAPOLEI HI

MR BENNETT W MARK
BARBERS POINT NAS REDEVELOPMENT COMMISSION
KAPOLEI HI

Appendix A-5

PUBLIC HEARING COMMENTS AND NAVY RESPONSES

**Draft Environmental Impact Statement
For the Disposal and Reuse of NAS Barbers Point
Public Hearing Comments and Navy Responses**

Comments:

1. Testimony from the Executive Director of the Barbers Point Naval Air Station Redevelopment Commission, supporting the State-preferred alternative.

No response required.

2. Concern that archaeological sites may be taken out of context and may be destroyed if considered expendable. Recommendation that an archaeological district be established guaranteeing no development and protection of sites. Some sites at Barbers Point don't exist anywhere else. Concern about increased public access and potential for vandalism.

The Navy has identified sites eligible for listing on the National Register of Historic Places. Based on specific criteria, the analysis does not lead to a conclusion that the entire Barbers Point complex is eligible to be designated as a historic district. In lieu of an overall district, the LRA and DHHL may consider adoption of a Cultural Resources Management Plan to guide the treatment of sites, similar to the CRMP that the Navy intends to follow for sites on Navy retained lands. The Navy is consulting with the State Historic Preservation Officer on the development of deed covenants to protect cultural resources on the property following conveyance.

3. Concern about the assumption that all environmental regulations will be enforced. Suggestion that violations on other properties should be disclosed.

The EIS evaluates potential impacts based on reasonable assumptions. In this case, the reasonable assumption is that existing regulatory requirements will be followed. A worst-case analysis that assumes non-compliance is not required under NEPA.

Questions and Requests for Clarification:

1. Why are all of the alternatives shown in the EIS? Hasn't the decision been made?

Although the Naval Air Station Redevelopment Commission and the Governor approved one alternative, the National Environmental Policy Act (NEPA) requires that the EIS evaluate a range of reasonable alternatives. Hence, the other alternatives considered by the Commission are being evaluated in the EIS.

2. Why is the no airport alternative evaluated?

See above response.

3. Why is it called the "State-preferred" alternative? It sounds like a decision has already been made.

This alternative has been approved by the Commission and the Governor. A decision has been made by the State, but the Navy has not yet made a decision on the property disposal. The EIS will assist the Secretary of the Navy in making a decision.

4. What happens if there's a change in political leadership?

Decisions would carry forward to the next administration, even if there is a change.

5. Which plan is in progress or in the planning stages?

The State-preferred alternative is the only one being discussed by the Local Redevelopment Authority (LRA).

6. Are these the 43,000 acres being condemned?

No.

7. Do OHA and DHHL have any interest in or input regarding this property and development?

A copy of the DEIS has been sent to both agencies, which have been invited to provide comments. The State-preferred alternative, which is also the Navy's preferred alternative, calls for approximately 602 acres of surplus land at NAS Barbers Point to be transferred to DHHL.

Appendix A-6

DEIS COMMENT AND RESPONSE LETTERS

DEIS Comment and Response Letters

Agency Name	Page Number
Federal	
Department of the Army U.S. Army Engineer District, Honolulu	Comment letter: A-6-3 Response letter: A-6-4
Department of the Interior Office of the Secretary Office of Environmental Policy and Compliance	Comment letter: A-6-5 Response letter: A-6-10
Department of the Interior U.S. Geological Survey - Water Resources Division	Comment letter: A-6-16 Response letter: A-6-17
Department of Transportation U.S. Coast Guard Fourteenth Coast Guard District	Comment letter: A-6-18 Response letter: A-6-26
Environmental Protection Agency Region IX Federal Activities Office	Comment letter: A-6-32 Response letter: A-6-42
State of Hawaii	
Commission on Water Resource Management	Comment letter: A-6-47 Response letter: A-6-49
Department of Defense Office of the Director of Civil Defense	Comment letter: A-6-51 Response letter: A-6-54
Department of Education	Comment letter: A-6-56 Response letter: A-6-58
Department of Hawaiian Home Lands	Comment letter: A-6-59 Response letter: A-6-60
Department of Health	Comment letter: A-6-62 Response letter: A-6-67
Department of Land and Natural Resources Division of State Parks	Comment letter: A-6-72 Response letter: A-6-73
Department of Land and Natural Resources Land Division, Engineering Branch	Comment letter: A-6-74 Response letter: A-6-75
Department of Transportation (Airport related issues)	Comment letter: A-6-77 Response letter: A-6-93
Department of Transportation (Traffic related issues)	Comment letter: A-6-101 Response letter: A-6-102
Office of Hawaiian Affairs	Comment letter: A-6-104 Response letter: A-6-106
City & County of Honolulu	
Board of Water Supply	Comment letter: A-6-108 Response letter: A-6-110
Department of Community and Social Resources	Comment letter: A-6-113 Response letter: A-6-114

Agency Name	Page Number
Department of Design and Construction	Comment letter: A-6-115 Response letter: A-6-117
Department of Environmental Services	Comment letter: A-6-118 Response letter: A-6-119
Department of Facility Maintenance	Comment letter: A-6-120 Response letter: A-6-121
Department of Planning and Permitting	Comment letter: A-6-123 Response letter: A-6-125
Planning Department	Comment letter: A-6-127 Response letter: A-6-130
Police Department	Comment letter: A-6-133 Response letter: A-6-134
Community/Other	
Jan Becket	Comment letter: A-6-135 Response letter: A-6-136
Leeward Oahu Transportation Management Association	Comment letter: A-6-139 Response letter: A-6-141
The Estate of James Campbell	Comment letter: A-6-144 Response letter: A-6-146
The Gas Company	Comment letter: A-6-149 Response letter: A-6-150
Mark J. Tarone	Comment letter: A-6-151 Response letter: A-6-156



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF

September 15, 1998

Civil Works Branch

Mr. Melvin N. Kaku
Director
Department of the Navy
Pacific Division
Naval Facilities Engineering Command
Environmental Planning Division
Pearl Harbor, Hawaii 96860-7300

Dear Mr. Kaku:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) for the Disposal and Reuse of the Naval Air Station, Barbers Point, Oahu. The following comments are provided in accordance with U.S. Army Corps of Engineers authorities to provide flood hazard information and to issue Department of the Army (DA) permits.

a. Based on the information provided, a DA permit will not be required for the project unless work is performed in the open coastal waters, Ordy Pond, or other wetlands. For further information, please contact Mr. William Lennan of our Regulatory Section at 438-9258 (extension 13), and refer to file number 980000306.

b. The flood hazard information provided on page 3-4 of the DEIS is correct.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Mizue".

Paul Mizue, P.E.
Chief, Civil Works Branch



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2317- 4513
21 DEC 1998

From: Commander, Pacific Division, Naval Facilities Engineering Command
To: Department of the Army, U.S. Army Engineer District, Honolulu

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE DISPOSAL
AND REUSE OF NAVAL AIR STATION, BARBERS POINT

1. Thank you for your letter of 15 September 1998, regarding the subject document. We acknowledge that the U.S. Army Engineer District, Honolulu, has reviewed the Draft EIS and has confirmed that the information in the Draft EIS concerning flood zones is correct. We also understand that a Department of the Army permit is not needed for the proposed action, unless work is performed in the open coastal waters, Ordy Pond, or other wetlands. This information will be specified in Section 1.9, Permit Requirements and Related Coordination, in the Final EIS.
2. We appreciate your timely response.


MELVIN N. KAKU
By direction

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
600 Harrison Street, Suite 515
San Francisco, California 94107-1576

October 9, 1998

ER 98/0559

Commander, Naval Forces Marianas
Pacific Division
Naval Facilities Engineering Command, Code 231 FM
258 Makalapa Drive, Suite 100
Honolulu, Hawaii 96860-7300

Dear Commander:

The Department of the Interior (Department) has reviewed the August 1998 Draft Environmental Impact Statement (DEIS) for the Disposal and Reuse of Naval Air Station Barbers Point (NASBP), Oahu, Hawaii. The following comments are provided for your use and information when preparing the Final Environmental Impact Statement (FEIS).

GENERAL COMMENTS

Fish and Wildlife Resources

The DEIS adequately describes the proposed action and most significant fish and wildlife resources at the proposed NASBP site. The Department concurs that the State-preferred Alternative (U.S. Navy's preferred Alternative) would be the action alternative least likely to impact fish and wildlife resources.

The majority of potential impacts to fish and wildlife resources from the preferred alternative are adequately addressed in the DEIS. However, we have identified several informational deficiencies that need to be addressed in the FEIS. These deficiencies are addressed in the following comments:

Endangered Species The DEIS identifies the chaff flower shrub (*Achyranthes splendens* var. *roundata*) and the Ewa Plain 'akoko shrub (*Chamaesyce skottsbergii* var. *skottsbergii*) as endangered under the Endangered Species Act of 1973, as amended (ESA). However, the DEIS does not identify any potentially significant impacts to either listed species, but it does indicate mitigation that would reduce impacts to below significant levels. Since the ESA states impacts to listed species must be identified, the

FEIS needs to clarify whether any significant effect may occur to listed species. The Department also suggests addressing the Hawaii Division of Forestry and Wildlife's (HDFW) endangered species law. This law requires a habitat conservation plan be developed whenever a land use change harms or destroys a HDFW listed species.

The DEIS identifies many locations of these species on the property proposed for transfer to the FWS. We understand that at least 11 'akoko shrubs exist on the surplus lands. Under the preferred alternative, the surplus lands that support the endangered plants include areas slated for light industrial, recreational, and residential uses.

Therefore, the Department of the Navy (Navy) should consult with the Fish and Wildlife Service (FWS) under section 7 of the ESA and address the HDFW endangered species law concerning results of the 'akoko shrub surveys. The results of these compliance efforts with the FWS and the HDFW should be incorporated into the FEIS.

The FEIS should note the NPS is willing to include appropriate requirements for protecting the two ESA-identified species and any other listed species within the conditions of public benefit conveyances.

Coral Sea Road The Department supports the currently depicted route for Coral Sea Road on the eastern boundary of the round-leafed chaff-flower shrub recovery parcel (DEIS, Figure 3.1-2 on page 3-11 and Figure 3.2-2 on page 3-18). Extending the road along the shoreline to the far western boundary of the recovery parcel as previously considered would have destroyed existing endangered round-leafed chaff-flower plants and their habitats. If the configuration of the Coral Sea Road or the airport runways and clear zones in the vicinity of the endangered plant parcel are changed, the Navy needs to coordinate with the FWS and the HDFW to ensure that the endangered plants and their habitats are adequately protected.

Marine Park We are concerned that pumping saltwater from offshore and releasing it in the upland areas to create the proposed Marine Park may adversely affect groundwater quality. The FEIS needs to address whether any resulting increased salinity may impact subterranean resources, including those that occur in anchialine ponds (see our specific comment: "Page 3-20. Sensitive Habitats" in the following Specific Comments section). The FEIS should address whether alteration of groundwater salinity may also adversely affect endangered plants in the recovery parcels. Also, more details on the proposed Marine Park are needed to adequately comment on future impacts.

Regional Drainage The ESA listed plant and animal recovery parcels should be avoided when siting the drainage basin. The Department emphasizes this issue needs to be resolved.

Historical and Recreational Resources

The DEIS adequately describes the impacts of the proposed action and its alternatives on natural and cultural resources. Neither the proposed action nor its alternatives would affect any unit of the national park system of the National Park Service (NPS), including the *USS Arizona* Memorial, which is the closest NPS unit.

The NPS has worked with representatives of the City and County of Honolulu, the State of Hawaii, and the Navy since 1995 on the planned reuse of the NASBP and proposed public benefit from its conveyance to the national park system. The DEIS provides a thorough review of the issues related to compatibility between the proposed airport and park and recreation uses for the surplus base property. The continued airport operations would not significantly affect public use and enjoyment of significant portions of the 681 acres designated for park and recreation uses.

The Department understands the proposed airport would be used largely for 1) continued Coast Guard aircraft operations and 2) the relocation of general aviation operations from other locations from other Oahu airfields. The preferred alternative shows the shortening of several of the runways, particularly, runway 11/29, which we believe is essential to the proposed beachfront recreation use. With the exception of the clear zones at the ends of Runways 4/22 and 11/29, all park and recreation lands are within the 60 decibels (DNL) noise contour, a reasonable standard for recreation areas in an urban setting. However, we recognize that beach areas at the end of the runways and in the vicinity of the Coral Pit would have greater noise exposure. We believe the limited amount of affected beach area and the ability to design the proposed sports center to minimize unnecessary exposure to aircraft noise represents a reasonable tradeoff.

The NPS has participated in the development of a proposed protection program for archeological resources and other historical structures pursuant to Section 106 of the National Historic Preservation Act. We support protection for these resources through restrictive covenants. These covenants would require subsequent review of proposed modifications to the structures or within the immediate area. Also, the NPS would provide protection for the integrity of the archeological resources within the proposed heritage park site.

The DEIS identifies several Points of Interest and Installation Response Program Sites, indicating hazardous substance contamination of areas designated for park and recreation use. We recognize that the Navy must certify the remediation of all hazardous substance releases prior to assignment to NPS for transfer. However, we request the Navy continue to communicate with the NPS on the standard and schedule for clean-up of the identified sites.

SPECIFIC COMMENTS

Page ES-9 Executive Summary Section This section needs to be revised in the FEIS to include information about anchialine pond resources (see our comments below on anchialine ponds).

Page 3-19: 3.2.2 Terrestrial Fauna Paragraph seven should be in its own subsection and be entitled "Other Wildlife" in the FEIS.

Page 3-20: 3.2.4 Sensitive Habitats In its December 19, 1997, and February 25, 1998, communications to the Navy, the FWS requested anchialine ponds be addressed in the DEIS. Anchialine ponds are surface expressions of the underground water table found in some low-lying coastal areas, and are considered to be sensitive habitats because of their rarity and the frequently unique nature of the biota that they support. The FEIS needs to provide information on anchialine ponds and an analysis of the effects of the alternatives on these ponds.

Barbers Point is one of only three currently identified sites on Oahu that have known anchialine ponds (according to the report: The Nature Conservancy of Hawaii's 1987 Biological Database of Rare Species and Anchialine Pond Types of the State of Hawaii). Also, the anchialine ponds found at Barbers Point are classified as being "Low Salinity Limestone Ponds," which is a type of anchialine pond known only from Oahu (as compared with the more common lava ponds that are found on the islands of Molokai, Maui, and Hawaii) and are ranked by specialists as "Critically Imperilled" on a global basis (*i.e.*, are known from less than five occurrences).

The Department recommends that the FEIS include an assessment of the number and location of anchialine pools at NASBP and a description of the biota in representative pools. The FWS' Pacific Islands Fish and Wildlife Office in Honolulu, Hawaii, is available to provide technical assistance for an ecological assessment of anchialine resources at the NASBP.

Page 3-20: 3.2.4 Sensitive Habitats In the fourth paragraph, the DEIS states that the coastal salt flat on the property "...rarely contains standing water." However, it is the FWS' understanding that the coastal salt flat frequently contains standing water, especially during the rainy season. The Department recommends that this discrepancy be clarified in the FEIS.

Page 3-34: 3.4.3 Airport Protection Zones In the first paragraph, the FEIS should correct the date of the Aries Report to June 1998.

Page 4-2: 4.1.2. Groundwater Quality In the first paragraph, the FEIS should note that any activities that affect groundwater quality (including artificial saltwater intrusion and contaminants) may affect water quality in anchialine ponds.

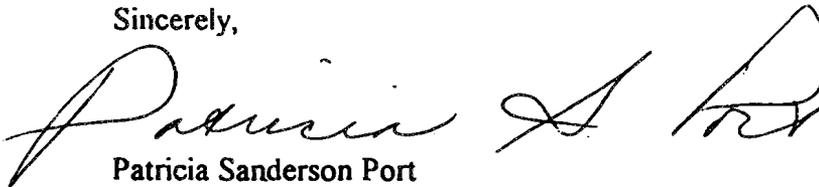
Page 4-56: 4.2 Biological Resources This section should include relevant information on anchialine ponds. This section should provide subsections on wetland biota and anchialine pond biota. The former subsection should contain the information currently presented in this section of the DEIS. The subsection on anchialine pond biota should discuss the affects of the alternatives on these resources, including where these resources would be lost to construction or other known future uses.

Page 5-1: 5.1 Irretrievable/Irreversible Commitment of Resources The FEIS should fully address that conversion of anchialine ponds to other uses would likely result in the irretrievable losses of that habitat.

Page 5-1: 5.3 Relationship between short-term use and long-term productivity The FEIS needs to indicate that conversion of a pond to other uses would likely result in the permanent loss of productivity for anchialine habitat.

We appreciate the opportunity to comment on this project.

Sincerely,



Patricia Sanderson Port
Regional Environmental Officer

cc:
Director, OEPC, w/original incoming
Regional Director, FWS, Portland
Regional Director, NPS, San Francisco



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2377- 4526

21 DEC 1998

Ms. Patricia Sanderson Port
Regional Environmental Officer
U.S. Department of the Interior
Office of the Secretary
Office of Environmental Policy and Compliance
600 Harrison Street, Suite 515
San Francisco, CA 94107-1376

Dear Ms. Port:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS) BARBERS POINT

Thank you for your letter of October 9, 1998, regarding the subject document. We acknowledge that the Department of the Interior (DOI) concurs that the State-preferred alternative would be the action alternative least likely to impact fish and wildlife resources. However, you identify information deficiencies in the Draft EIS. Our responses to your comments follow:

Comment: Endangered Species. The Draft EIS identifies the chaff flower shrub (*Achyranthes splendens* var. *roundata*) and the Ewa Plain 'akoko shrub (*Chamaesyce skottsbergii* var. *skottsbergii*) as endangered under the Endangered Species Act (ESA) of 1973, as amended. However, the Draft EIS does not identify any potentially significant impacts to either listed species, but it does indicate mitigation that would reduce impacts to below significant levels. Since the ESA states impacts to listed species must be identified; the Final EIS needs to clarify whether any significant effect may occur to listed species. The DOI also suggests addressing the Hawaii Division of Forestry and Wildlife's (HDFW) endangered species law. This law requires a habitat conservation plan be developed whenever a land use change harms or destroys a HDFW listed species.

Response: The potentially significant impacts on endangered plant species are identified in Section 4.2.1, Significance Criteria, which states: "Any direct or indirect action resulting in the take of listed (threatened or endangered) species or candidate species, and any action resulting in the loss of habitat of listed or candidate species is considered a significant impact under the ESA...The term "take" includes harass, harm, pursue, hunt, kill, capture, and/or collect."

The Navy's proposed action involves the transfer of property to federal and state agencies. The act of transferring this property is not likely to adversely affect the federally endangered plant species, provided the Navy informs the appropriate bureau within the DOI of its responsibilities to consult under section 7 of the ESA of 1973, as amended, on the potential effects of the land transfer to the State of Hawaii and City and County of Honolulu on 'akoko (DOI, December 1, 1998). The federal and state agencies that acquire this property must comply with the same guidelines as the Department of the Navy (Navy), regarding the protection of

threatened and endangered species. The Navy believes that compliance with federal environmental laws (i.e., the ESA) adequately protects the threatened and endangered species present on the transferred property. The HDFW endangered species law would apply to nonfederal property owners.

Comment: The Draft EIS identifies many locations of these species on the property proposed for transfer to the U.S. Fish and Wildlife Service (USFWS). We understand that at least 11 'akoko shrubs exist on the surplus lands. Under the preferred alternative, the surplus lands that support the endangered plants include areas slated for light industrial, recreational, and residential uses.

Therefore, the Navy should consult with the USFWS under Section 7 of the ESA and address the HDFW endangered species law concerning results of the 'akoko shrub surveys. The results of these compliance efforts with the USFWS and the HDFW should be incorporated into the Final EIS.

The Final EIS should note the National Park Service (NPS) is willing to include appropriate requirements for protecting the two ESA-identified species and any other listed species within the conditions of public benefit conveyances.

Response: On September 16, 1998, the Navy initiated the consultation process with the USFWS, and the National Marine Fisheries Service (NMFS), under Section 7 of the ESA. Both USFWS and NMFS have verbally indicated that they expect to concur with the Navy's conclusion of no significant impact. The official response letters are included in the Final EIS.

The vast majority of 'akoko plants are growing in an area that will be transferred to USFWS. As previously stated, the Navy's compliance with federal environmental laws, including the ESA, adequately protects all threatened and endangered species present on the NAS Barbers Point property, and that additional compliance efforts, with the HDFW, are not necessary.

Last, we acknowledge the NPS's offer to include appropriate requirements for protecting the two ESA identified species and any other listed species within the conditions of public benefit conveyances.

Comment: Coral Sea Road. The DOI supports the currently depicted route for Coral Sea Road on the eastern boundary of the round-leafed chaff-flower shrub recovery parcel (Draft EIS, Figure 3.1-2 on page 3-11 and Figure 3.2-2 on page 3-18). Extending the road along the shoreline to the far western boundary of the recovery parcel as previously considered would have destroyed existing endangered round-leafed chaff-flower plants and their habitats. If the configuration of Coral Sea Road or the airport runways and clear zones in the vicinity of the endangered plant parcel are changed, the Navy needs to coordinate with the USFWS and the HDFW to ensure that the endangered plants and their habitats are adequately protected.

Response: The Navy has been coordinating with the USFWS, Honolulu Office, to ensure that the endangered plants and their habitat are adequately protected. Please see the above responses for additional detail.

Comment: Marine Park. We are concerned that pumping saltwater from offshore and releasing it in the upland areas to create the proposed Marine Park may adversely affect groundwater quality. The Final EIS needs to address whether any resulting increased salinity may impact subterranean resources, including those that occur in anchialine ponds (see our specific comment: "Page 3-20. Sensitive Habitats" in the following Specific Comments section.) The Final EIS should address whether alteration of groundwater salinity may also adversely affect endangered plants in the recovery parcels. Also, more details on the proposed Marine Park are needed to adequately comment on future impacts.

Response: The Local Redevelopment Authority (LRA) provided no specific plans for the suggested Marine Park. Since the activities associated with this possible development are unknown, we have evaluated this proposal consistent with the level of detail provided in the LRA's reuse plan. However, because the Marine Park would be developed on state lands, the proponents would be required to comply with all applicable federal and state environmental guidelines, including the State of Hawaii's environmental assessment/environmental impact statement procedures (Hawaii Revised Statutes Chapter 343), prior to development. Potential environmental impacts would be evaluated at that time.

Comment: Regional Drainage. The ESA listed plant and animal recovery parcels should be avoided when siting the drainage basin. The DOI emphasizes this issue needs to be resolved.

Response: We understand that the protection of ESA-listed plants is a concern, relative to the siting of the drainage basin. Additional text will be added to Section 4.2.2.1, Terrestrial Flora, which will state that should a drainage basin be developed, as depicted in the State-preferred alternative, that the drainage project will be consistent with all ESA requirements. Resolution of the regional drainage issue is the responsibility of the LRA.

Comment: Historical and Recreational Resources. The Draft EIS identifies several Points of Interest and Installation Response Program Sites, indicating hazardous substance contamination of areas designated for park and recreation use. We recognize that the Navy must certify the remediation of all hazardous substance releases prior to assignment to NPS for transfer. However, we request the Navy continue to communicate with the NPS on the standard and schedule for clean up of the identified sites.

Response: We will continue to communicate with the NPS on the standard and schedule for clean up of the identified sites. Please contact Mr. Randy Hoffman, Base Conversion Manager at (808) 474-5949 for additional information.

Comment: Page ES-9 Executive Summary Section. This section needs to be revised in the Final EIS to include information about anchialine pond resources (see our comments below on anchialine ponds).

Response: Ordy Pond is the only anchialine pond on the NAS Barbers Point property and the environmental impacts have been evaluated. Ordy Pond is located on the parcel scheduled to be transferred to the USFWS. This information is correct as stated.

Comment: Page 3-19: 3.2.2 Terrestrial Fauna. Paragraph seven should be in its own subsection and be entitled "Other Wildlife" in the Final EIS.

Response: This change will be made in the Final EIS.

Comment: Page 3-20: 3.2.4 Sensitive Habitats. In its December 19, 1997 and February 25, 1998, communications to the Navy, the USFWS requested anchialine ponds be addressed in the Draft EIS. Anchialine ponds are surface expressions of the underground water table found in some low-lying coastal areas, and are considered to be sensitive habitats because of their rarity and the frequently unique nature of the biota that they support. The Final EIS needs to provide information on anchialine ponds and an analysis of the effects of the alternatives on these ponds.

NAS Barbers Point is one of only three identified sites on Oahu that have known anchialine ponds (according to the report: The Nature Conservancy of Hawaii's 1987 Biological Database of rare Species and Anchialine Pond Types of the State of Hawaii). Also, the anchialine ponds found at NAS Barbers Point are classified as being "Low Salinity Limestone Ponds," which is a type of anchialine pond known only from Oahu (as compared with the more common lava ponds that are found on the islands of Molokai, Maui, and Hawaii) and are ranked by specialists as "Critically Imperiled" on a global basis (i.e., are known from less than five occurrences.)

The DOI recommends that the Final EIS include an assessment of the number and location of anchialine pools at NAS Barbers Point and a description of the biota in representative pools. The USFWS' Pacific Islands Office in Honolulu, Hawaii is available to provide technical assistance for an ecological assessment of anchialine resources at the NAS Barbers Point.

Response: The Nature Conservancy's report referred to anchialine ponds (plural), in the Ewa district of Oahu. NAS Barbers Point occupies only a portion of the Ewa district. There is only one anchialine pond known from the NAS Barbers Point property, Ordy Pond (Memorandum for the Record, October 21, 1998), which will be transferred to USFWS. The USFWS will have the responsibility of ensuring that all environmental guidelines are complied with, relative to Ordy Pond. We believe that the USFWS will adequately protect Ordy Pond. Section 3.2.4 of the Final EIS will incorporate this information.

Comment: Page 3-20: 3.2.4 Sensitive Habitats. In the fourth paragraph, the Draft EIS states that the coastal salt flat on the property "...rarely contains standing water." However, it is the USFWS' understanding that the coastal salt flat frequently contains standing water, especially during the rainy season. The DOI recommends that this discrepancy be clarified in the Final EIS.

Response: The Final EIS will be revised to read: "The coastal salt flats often contain standing water during the rainy season, and sometimes contain standing water at other times of the year." This change does not affect the environmental analysis.

Comment: Page 3-24: 3.4.3 Airport Protection Zones. In the first paragraph, the Final EIS should correct the date of the Aries Report to June 1998.

Response: This information was obtained from an Aries Report published in June of 1996.

Comment: Page 4-2: 4.1.2 Groundwater Quality. In the first paragraph, the Final EIS should note that any activities that affect groundwater quality (including artificial saltwater intrusion and contaminants) may affect water quality in the anchialine ponds.

Response: This information will be added to Section 4.1.2 to address the potential effects on Ordy Pond, the only anchialine pond on NAS Barbers Point.

Comment: Page 4-56: 4.2 Biological Resources. This section should include relevant information on anchialine ponds. This section should provide subsections on wetland biota and anchialine pond biota. The former subsection should contain the information currently presented in this section of the Draft EIS. The subsection on anchialine pond biota should discuss the affects of the alternatives on these resources, including where these resources would be lost to construction or other known future uses.

Response: The biota found in the only anchialine pond on NAS Barbers Point is described in Section 3.2.4, Sensitive Habitats. Because Ordy Pond, the only anchialine pond on NAS Barbers Point, is being transferred to the USFWS, the Navy believes that there will not be any impacts to this anchialine ecosystem. And, since the USFWS will have control of the pond under all of the alternatives except the No Action Alternative, no further discussion is appropriate.

Comment: Page 5-1. Irretrievable/Irreversible Commitment of Resources. The Final EIS should fully address that conversion of anchialine ponds to other uses would likely result in the irretrievable losses of that habitat.

Response: There is only one anchialine pond, Ordy Pond, on NAS Barbers Point. It will be transferred to UFSWS who does not intend to change the present use of the pond

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Ser 2317 4526

Comment: Page 5-1: 5.3. Relationship Between Short-term Use and Long-term Productivity.
The Final EIS needs to indicate that conversion of a pond to other uses would likely result in the permanent loss of productivity for anchialine habitat.

Response: See previous response.

Should you have any questions, please contact the undersigned at (808) 471-9338 or by facsimile transmission at (808) 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at (808) 474-5949.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
WATER RESOURCES DIVISION
677 Ala Moana Boulevard, Suite 415
Honolulu, Hawaii 96813

September 1, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

Subject: Draft Environmental Impact Statement (DEIS) for the
Disposal and Reuse of Naval Air Station, Barbers Point, Hawaii

The staff of the U.S. Geological Survey, Water Resources Division, Hawaii District, has reviewed the Draft Environmental Impact Statement, and we have no comments to offer at this time.

Thank you for allowing us to review the DEIS. We are returning it for your future use.

Sincerely,


William Meyer
District Chief

Enc.



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2317 4510
21 DEC 1998

Mr. William Meyer
District Chief
United States Department of the Interior
U.S. Geological Survey, Water Resources Division
677 Ala Moana Boulevard, Suite 415
Honolulu, HI 96813

Dear Mr. Meyer:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR
THE DISPOSAL AND REUSE OF NAVAL AIR STATION,
BARBERS POINT

Thank you for your letter of September 1, 1998, regarding the subject document. We acknowledge that the U.S. Geological Survey, Water Resources Division, Hawaii District, has reviewed the DEIS and has no comments at this time. We appreciate the return of this document for future reuse.

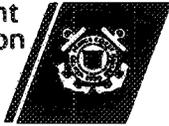
Sincerely,

MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

U.S. Department
of Transportation

United States
Coast Guard



Commander
Fourteenth Coast Guard District
Prince Kalaniana'ole Federal Building

300 Ala Moana Blvd., 9th Floor
Honolulu, HI 96850-4982
Staff Symbol: dpl
Phone: (808) 541-2126
FAX: (808) 541 -3103

5090P
9 October 98

From: Commander, Fourteenth Coast Guard District
To: Commander, Pacific Division, Naval Facilities Engineering Command

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE DISPOSAL
AND REUSE OF NAVAL AIR STATION BARBERS POINT, HAWAII

Ref: (a) Your ltr 5090P, 1f10c Ser 321/3156 of 26 Aug 98

1. Per reference (a), I have reviewed the subject Draft Environmental Impact Statement (DEIS) and offer the following comments. Further, enclosures (1) through (3) are provided as additional input to be addressed in the final EIS.
2. General.
 - a. The DEIS doesn't adequately address the post-closure impacts directly or indirectly on Coast Guard Air Station (CGAS) Barbers Point in any of the studied areas; environmental, land use compatibility, socioeconomic, infrastructure, availability of public services, noise levels etc. As a federal agency remaining at Barbers Point post-closure, the Coast Guard's operations will be impacted by the closure. These issues should have been studied as requested during the scoping meetings held in the Fall of 1997 and per enclosure (3).
 - b. The Coast Guard is a federal Department of Transportation agency vice Department of Defense as indicated on page 1-5.
 - c. The base closure is subject to the federal Base Realignment and Closure (BRAC) process and legislation vice the Base Closure and Realignment process and legislation as indicated in Chapter 1.
 - d. Wastewater (Section 4.7.3). States that "During an interim period, reuse areas would need to uses the navy System to convey sewage to Honouliuli. The arrangements for facility uses will need to be coordinated between the LRA and Navy." This makes no mention of the Navy transferring the appropriate permit to the Coast Guard.

5090P

9 October 98

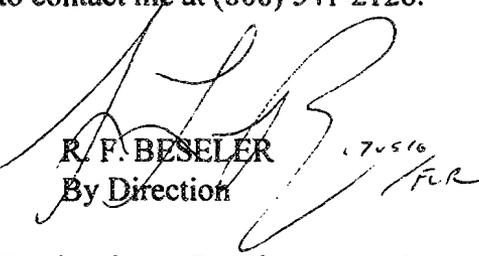
Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE DISPOSAL AND REUSE OF NAVAL AIR STATION BARBERS POINT, HAWAII

3. Per figure 4.4-1, the flight tracks in the State preferred alternative do not adequately address Coast Guard current air operations, which will remain the same into the future after base closure. Enclosure (1) has been annotated to accurately depict Coast Guard current and future flight tracks for C-130 and HH65A helicopter flight patterns. These are essential to Coast Guard air operations for search and rescue missions as well as for required training evolutions. By not showing these flight patterns, especially those to the north, the noise contours presented in the DEIS may not be accurate. The DEIS should show the flight patterns per enclosure (1) and reassess the noise contours accordingly. These issues will also be addressed with the State of Hawaii Department of Transportation (HDOT) Airports Division.
 - a. Item CG-A. The Coast Guard currently uses the existing helicopter pads at the southeast end of the crosswind runway for required helicopter training evolutions. This training includes both day and night touch and go landings and practice load hoists. The patterns encompass a 3000' by 3000' area generally perpendicular to the crosswind runway.
 - b. Item CG-B. The Coast Guard currently uses the area adjacent to runway 4R as a C-130 practice drop zone. This area is 500' by 1500' and is within the future airport boundary.
 - c. Traffic patterns. The Coast Guard currently uses approach routes from the north to 4R and departure routes to the north from 4R as depicted, for search and rescue missions and training. The Coast Guard also uses an approach route to 11 and a departure route from 29 and would like to continue this pattern. Also, a helicopter approach pattern along the canal to 4R is used. All of these patterns should continue to support Coast Guard air operations.
 - d. Safety. Routing all traffic to the south (right hand patterns from both 4L and 4R) presents an air traffic safety concern. As general aviation traffic increases its use of runway 4L in the future, a left traffic pattern from 4L should be implemented.
4. The length of runway 11/29, the crosswind runway, in the state preferred alternative is 6000'. This will limit the Coast Guard's operations because the length does not allow for a fully loaded C-130 to use this runway.

5090P
9 October 98

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE DISPOSAL
AND REUSE OF NAVAL AIR STATION BARBERS POINT, HAWAII

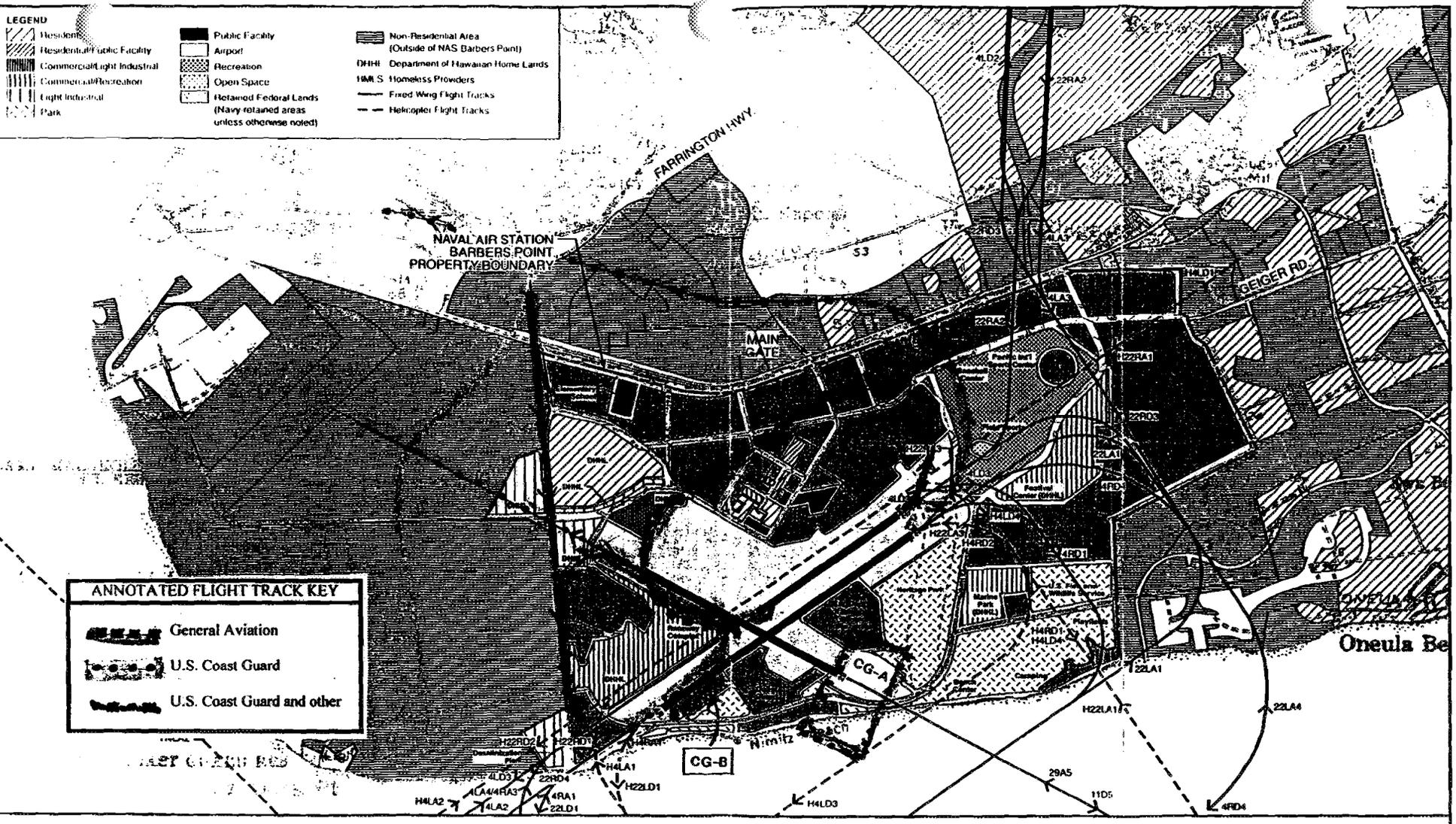
5. Thank you for the opportunity to comment on this document. If I can be of further assistance, please do not hesitate to contact me at (808) 541-2126.


R. F. BEESLER
By Direction

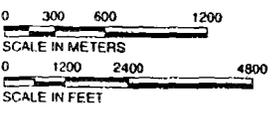
- Encl: (1) DEIS Figure 4.1-1 Flight Tracks; Coast Guard Annotated
(2) CCGD14(dpl) ltr 11000 dtd October 7, 1998
(3) CCGD14(dpl) ltr 5090P dtd February 2, 1998

Copy: CG CEU Honolulu
CGAS Barbers Point

LEGEND					
	Residential		Public Facility		Non-Residential Area (Outside of NAS Barbers Point)
	Residential Public Facility		Airport		DHHI Department of Hawaiian Home Lands
	Commercial/Light Industrial		Recreation		HMS Homeless Providers
	Commercial/Recreation		Open Space		Fixed Wing Flight Tracks
	Light Industrial		Retained Federal Lands (Navy retained areas unless otherwise noted)		Helicopter Flight Tracks
	Park				



ANNOTATED FLIGHT TRACK KEY	
	General Aviation
	U.S. Coast Guard
	U.S. Coast Guard and other



Sources: NASBP Land Use: Helber Hastert & Fee Planners (December 1997);
 Land Use Outside of NASBP: The Estate of James Campbell, Kapolei Area Long Range Master Plan (October 1997);
 Flight Tracks: Y. Ebsu and Associates (June 1998);
 Base Map: USGS Topographic Map of the Island of Oahu (1970).

Figure 4.1-1
 FLIGHT TRACKS:
 2020 STATE-PREFERRED ALTERNATIVE

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii

ENCLOSURE(1)

A-6-21

U.S. Department
of Transportation

United States
Coast Guard



Commander
Fourteenth Coast Guard District
Prince Kalaniana'ole Federal Building

300 Ala Moana Blvd., 9th Floor
Honolulu, HI 96850-4982
Staff Symbol: dpl
Phone: (808) 541-2126
FAX: (808) 541-3103

11000

OCT 7 1998

From: Commander, Fourteenth Coast Guard District
To: Commander, Naval Facilities Engineering Command, Pacific Division (Code 191)

Subj: ENVIRONMENTAL ACTIONS ON PROPERTY TRANSFERRED TO THE U.S.
COAST GUARD UNDER BRAC

1. This letter is a summary of the Navy's environmental actions on the property, which will be transferred to the U.S. Coast Guard under the BRAC closure of NAS Barbers Point. Its purpose is to ensure these actions are addressed prior to the title transfer scheduled for 2 July 1999.
2. The Coast Guard appreciates the Navy's on-going efforts to remediate dry wells O-184, O-185, and O-192 and their associated oily-water separators. Please send us copies of the reports from your cleanup contractor when they have been finalized. Once the Hawaii Department of Health (DOH) has permitted these dry wells, transfer the permits to us. Since dry well NW-CG-C is also being closed by the Navy, please send us a copy of your closure report and concurrence from DOH.
3. Coast Guard Air Station (CGAS) Barbers Point currently discharges its sanitary waste into your sanitary sewer system. The Navy's system is operated under a permit from the City and County of Honolulu (C&CH). Please transfer the necessary permits to us so that we may continue to discharge our sewage into the adjacent collection system after closure of the NAS Barbers Point.
4. Please prepare an ASTM Phase I environmental site assessment for Parcel 12, the land between what is currently licensed by the Coast Guard from the Navy and Runway 11-29. This assessment should also evaluate whether contamination within the drainage ditch located on Parcel 12 may have migrated onto adjacent parcels.
5. Please keep us informed as you negotiate contaminated site cleanup levels with the DOH and/or US Environmental Protection Agency (USEPA) and establish any subsequent cleanup timetable.
6. If the property can not be certified clean by the regulators prior its transfer, then the Coast Guard requires a written investigation/cleanup plan addressing the contamination that has been approved by the regulators. We also require the equivalent of a CERCLA Section 120(h)(3) certification be inserted into the property transfer document. That certification provides a covenant warranting that:
 - (a) All remedial action necessary to protect human health and the environment with respect to any such substance remaining on the property has been taken before the date of such transfer, and

ENCLOSURE(2)

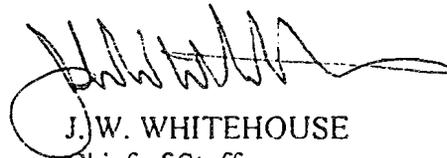
11000

OCT 7 1998

Subj: ENVIRONMENTAL ACTIONS ON PROPERTY TRANSFERRED TO THE U.S.
COAST GUARD UNDER BRAC

(b) The Navy shall conduct any future additional remedial action found necessary to address contamination released prior to the date of transfer.

7. Please pass on to Ms. Anne Okamura, your BRAC Environmental Coordinator, our appreciation of her past efforts to address the environmental issues noted above. The Coast Guard looks forward to working closely with her over the next nine months to bring these issues to closure. Mr. Jay Silberman is our point of contact for environmental issues at CGAS Barbers Point. He may be reached at (808) 541-2077 if you have any questions or comments.



J.W. WHITEHOUSE

Chief of Staff

Acting

Copy: Commanding Officer, Coast Guard Air Station Barbers Point
Commander, Maintenance and Logistics Command Pacific (s)
Commandant, U.S. Coast Guard (G-OCA), (G-CPP), (G-SEC)
Commanding Officer, Coast Guard Civil Engineering Unit Honolulu

1-2

U.S. Department
of Transportation

United States
Coast Guard



Commander
Fourteenth Coast Guard District
Prince Kalaniana'ole Federal Building

300 Ala Moana Blvd., 9th Floor
Honolulu, HI 96850-4982
Staff Symbol: dpl
Phone: (808) 541-2126
FAX: (808) 541-3103

5090P

2 February 98

From: Commander, Fourteenth Coast Guard District
To: Commander, Pacific Division, Naval Facilities Engineering Command

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE PROPOSED
DISPOSAL OF LAND AND FACILITIES AT NAVAL AIR STATION BARBER
POINT

Ref: (a) Your ltr 5090P, 1f10c Ser 321/296 of 23 Jan 98

1. Per reference (a), I have reviewed the subject Draft Environmental Impact Statement (DEIS) and offer the following comments.
 - a. Pages 3-14 & 3-17, Table 3.4.4-2. The Navy states its intentions to clean POI 28 (Storm water Drainage Ditch) and POI-47 (Dry Well Network), if the ecological risk assessment and sediment testing determines clean up is appropriate. Has the EPA and/or the State of Hawaii agreed to this approach? What is the extent of regulatory buy-in to this planned course of action? What is the status of POI-27?
 - b. Our records indicate an abandoned Oil-Water Separator (OWS) tied into dry well NW-CG-C. What are the Navy's intentions regarding testing and clean up?
 - c. Page 4-10, Table 4-1, Wastewater. What is the impact to the main sewer line running across the Coast Guard property?
 - d. Page 4-10, Table 4-1, Drainage. What is the potential drainage contamination from the dry well adjacent to the Coast Guard property and runways?
 - e. Page 4-55, Table 4.2.3-1, Coral Sea Road. The anticipated build up will impact access to the Coast Guard property. Also, closure of the airport to accommodate through traffic will impact Coast Guard air operations. Further, expansion of Coral Sea Road will potentially encroach on Coast Guard property, create adverse effect on vehicle parking and cause traffic to double. Please address all impacts to the Coast Guard and the necessity to expand this road to four lanes.

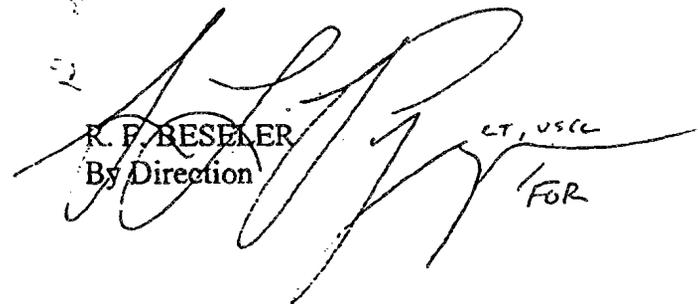
ENCLOSURE(3)

5090P

2 February 98

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE PROPOSED DISPOSAL OF LAND AND FACILITIES AT NAVAL AIR STATION BARBER POINT

- f. Page 4-95, Section 4.5.2.2. Significance Criteria. This section does not reflect recent correspondence between the FAA, State DOT-Airports and the Navy regarding the State's ownership and aviation easement requirements. Please review and update accordingly.
 - g. General. The DEIS does not address the status of Navy permits on which the Coast Guard is a tenant, for example the sanitary sewer system connection with City & County of Honolulu (CCH). How will any or all of these types of permits be handled post-closure?
 - h. General. What are the post-closure impacts on the Coast Guard, to include environmental, land use compatibility, socioeconomic, infrastructure and the availability of public services, ie. firefighting, police, etc.?
3. Thank you for the opportunity to comment on this document. If I can be of further assistance, please do not hesitate to contact me at (808) 541-2126.


R. F. BEESLER
By Direction
LT, USCG
FOR

Copy: CG CEU Honolulu
CGAS Barbers Point



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4537
21 DEC 1998

From: Commander, Pacific Division, Naval Facilities Engineering Command
To: Commander, Fourteenth Coast Guard District

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE DISPOSAL
AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Ref: (a) Fourteenth Coast Guard District ltr 5090P of 9 Oct 98

1. Thank you for your letter of 9 October 1998, regarding the subject document. Responses to your specific comments are presented below; however, our responses should be prefaced with the following general assumptions.

a. The purpose of the EIS is to evaluate the potential environmental impacts that may result from the proposed disposal and reuse of surplus properties at NAS Barbers Point, Hawaii. The evaluations focus on impacts associated with alternative reuse plans at a land use (e.g., residential or commercial) planning level of detail.

b. The EIS does not focus on impacts to or from excessed properties (except as identified in assumption [3] below) or deal with operational issues of specific activities that are more appropriately handled in other venues such as within or between federal agencies.

c. Excessed property activities, such as the U.S. Coast Guard (USCG), have been incorporated into the analysis to determine cumulative impacts, e.g., wastewater and drainage.

Comment: Enclosures (1) through (3) of reference (a) are provided as additional input to be addressed in the Final EIS.

Response: Enclosure (1) of reference (a) is addressed in Comment (3) later in this letter. Enclosure (2) of reference (a), Environmental Actions on Property Transferred to the USCG Under Base Realignment and Closure (BRAC), pertains to details that are being handled outside of the EIS or are operational issues. The appropriate level of information for the EIS has been included in the document and includes the fact that existing areas of contamination and POIs must be identified and remediated to levels protective of human health and the environment. A summary of the clean up efforts is provided in Section 3.4.1, On-site Contaminated Areas/Hazardous Substances. This section includes a summary and status of IRP and POI sites requiring further action, along with a map illustrating their locations.

Enclosure (3) of reference (a) is your letter of 2 February 1998, that provides comments on the Draft EIS (Prefinal Copy). Information pertinent to the EIS process was incorporated into the Draft EIS, and your input is appreciated. Your comments, along with our responses (revised to reflect information that was made available after the Draft EIS was published), follow:

Comment: The Navy states its intentions to clean POI-28 (Storm water Drainage Ditch) and POI-47 (Dry Well Network), if the ecological risk assessment and sediment testing determines clean up is appropriate. Has the Environmental Protection Agency (EPA) and/or the State of Hawaii agreed to this approach? What is the extent of regulatory buy-in to this planned course of action? What is the status of POI-27?

Response: The BRAC Cleanup Team, which consists of representatives from the Navy, U.S. EPA, and the State of Hawaii, determined that no significant human health risks are posed by contamination in the ditch, assuming an industrial use exposure scenario. At the time the Draft EIS was published, dry well and groundwater risks were being evaluated. Current findings indicate that the dry well and ditch sediments are not contaminating groundwater. Sediments exceeding hazardous waste levels are being removed during the period between January and March 1999.

POI-27 was tested in areas where potential contamination could have resulted from Navy activities; these areas were limited to dry wells and a transformer. Sediments that could exceed TCLP metals concentrations and exceed HDOH Soil Action Levels for PCBs and TPH are being removed from dry wells, catch basins and oil and water separators. Removal will be completed in November 1998. Dry wells pose no risk since there is no direct contact pathway for exposure to sediments, and contaminants in the dry wells are not impacting regional groundwater quality. Sediment removal is not a federal action under CERCLA. Removal is to address future disposal problems during maintenance activities. PCB was not detected at Substation 1820 so no further action is required. Should contamination be identified as a result of non-Navy activities, cleanup will be the responsibility of the party that conducted that activity. Because the EIS evaluates surplus properties only (except when cumulative impacts are involved), information concerning POI-27 is not included in the EIS.

Comment: Our records indicate an abandoned Oil-Water Separator (OWS) tied into dry well NW-CG-C. What are the Navy's intentions regarding testing and clean up?

Response: Because the USCG has indicated that they have never used the OWS, any associated contamination would most likely have been due to Navy activities. The Navy cleaned out sediments in the abandoned OWS connected to dry well NW-CG-C when sediments were removed from the dry well. The OWS will be backfilled with clean fill material.

Comment: What is the impact to the main sewer line running across the USCG property?

Response: This is not an environmental impact to be covered in the EIS, but an operational issue to be handled in discussions between the Coast Guard and the Navy and/or the Local Redevelopment Authority (LRA) - the Barbers Point Naval Air Station Redevelopment Commission.

Comment: What is the potential drainage contamination from the dry well adjacent to the USCG property and runways?

Response: Assessing the potential impacts from specific dry wells to specific federally retained areas is not within the scope of work of this EIS (the EIS focuses on the surplus areas). However, as indicated in the BRAC Cleanup Plan (Draft January 1998) and the Draft EIS, POI-47 (Dry Well Network) does not pose a threat to groundwater throughout the base. Current information from the BRAC Cleanup Team indicates that the Dry Well Network, which includes those near the USCG area, does not pose a threat to groundwater throughout the base. Sediments at or above hazardous waste levels were removed.

Comment: The anticipated build up will impact access to the USCG property. Also, closure of the airport to accommodate through traffic will impact USCG air operations. Further, expansion of Coral Sea Road will potentially encroach on USCG property, create adverse effect on vehicle parking, and cause traffic to double. Please address all impacts to the USCG and the necessity to expand this road to four lanes.

Response: The EIS addresses broader-scale impacts at a land use planning level (e.g., number of lanes to accommodate anticipated traffic volumes). Traffic impacts on specific properties are not part of the scope of work of this EIS and will be addressed in future studies as appropriate. However, based on the findings of the EIS traffic study, the existing two-lane roadway can accommodate the average peak-hour traffic volumes. The LRA proposed that an 80-foot right-of-way be planned to accommodate undefined future roadway improvements, as identified in the *Naval Air Station Barbers Point Community Redevelopment Plan* (Helber Hastert and Fee, Planners, March 1997). Specific roadway design issues are being addressed as part of the implementation process with the LRA. Similarly, discussions concerning airport closure should be addressed with the LRA.

Comment: Page 4-95, Section 4.5.2.2. Significance Criteria. This section does not reflect recent correspondence between the FAA, State DOT-Airports, and the Navy regarding the State's ownership and aviation easement requirements. Please review and update accordingly.

Response: Information reflected in the recently approved (conditionally) airport layout plan will be incorporated into the Final EIS.

Comment: The Draft EIS does not address the status of Navy permits on which the USCG is a tenant, for example the sanitary sewer system connection with City and County of Honolulu. How will any or all of these types of permits be handled post-closure?

Response: The issue of how Navy and USCG permits will be handled post-closure is an operational issue and will not be addressed in the EIS.

Comment: What are the post-closure impacts on the USCG, to include environmental, land use compatibility, socioeconomic, infrastructure and the availability of public services, i.e., fire fighting, police, etc.?

Response: The scope of the EIS is not to evaluate the impacts on specific operations, e.g., USCG, but rather to evaluate the potential environmental impacts from the redevelopment alternatives at a land use planning level. At this planning level, the evaluation focuses on potential impacts on resources (environmental and socioeconomic). The USCG has been considered in the evaluation of potential cumulative impacts. Outside of the operational impacts addressed in section 4.5.2.4, post-closure operational impacts on the USCG will not be addressed in the EIS.

Comment: The Draft EIS doesn't adequately address the post-closure impacts directly or indirectly on Coast Guard Air Station Barbers Point in any of the studied areas; environmental land use compatibility, socioeconomic, infrastructure, availability of public services, noise levels etc. As a federal agency remaining at Barbers Point post-closure, the USCG's operations will be impacted by the closure. These issues should have been studied as requested during the scoping meeting held in the Fall of 1997 and per enclosure (3).

Response: Please refer to the general information in the second paragraph of this letter and to the response to the comment above.

Comment: The USCG is a federal Department of Transportation agency vice Department of Defense as indicated on page 1-5.

Response: The Final EIS will reflect this correction.

Comment: The base closure is subject to the federal BRAC process and legislation vice the Base Closure and Realignment process and legislation as indicated in Chapter 1.

Response: Although "BRAC" is a commonly used acronym, the term used in Chapter One is correct.

Comment: Wastewater (Section 4.7.3) states that "During an interim period, reuse areas would need to use the Navy system to convey sewage to Honouliuli. The arrangements for facility uses will need to be coordinated between the LRA and Navy." This makes no mention of the Navy transferring the appropriate permit to the USCG.

Response: Since the EIS focuses on surplus properties, permit management between the Navy and the USCG (located within Navy "excess" property) is an operational action that need not be discussed in the EIS.

Comment: Per Figure 4.4-1, the flight tracks in the State preferred alternative do not adequately address USCG current air operations, which will remain the same into the future after base closure. Enclosure (1) of reference (a) has been annotated to accurately depict USCG current and future flight tracks for C-130 and HH65A helicopter flight patterns. These are essential to USCG air operations for search and rescue missions as well as for required training evolutions. By not showing these flight patterns, especially those to the north, the noise contours presented in the Draft EIS may not be accurate. The Draft EIS should show the flight patterns per enclosure (1) and reassess the noise contours accordingly. These issues will also be addressed with the State of Hawaii Department of Transportation (HDOT) Airports Division.

Item CG-A. The USCG currently uses the existing helicopter pads at the southeast end of the crosswind runway for required helicopter training evolutions. This training includes both day and night touch and go landings and practice load hoists. The patterns encompass a 3,000-foot by 3,000-foot area generally perpendicular to the crosswind runway.

Item CG-B. The USCG currently uses the area adjacent to runway 4R as a C-130 practice drip zone. This area is 500 feet by 1500 feet and is within the future airport boundary.

Traffic patterns. The USCG currently uses approach routes from the north to 4R and departure routes to the north from 4R as depicted, for search and rescue missions and training. The USCG also uses an approach route to 11 and a departure route from 29 and would like to continue this pattern. Also, a helicopter approach pattern along the canal to 4R is used. All of these patterns should continue to support USCG air operations.

Safety. Routing all traffic to the south (right hand patterns from both 4L and 4R) presents an air traffic safety concern. As general aviation traffic increases its use of runway 4L in the future, a left traffic pattern from 4L should be implemented.

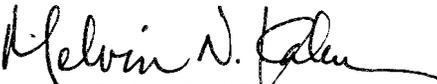
Response: The State Department of Transportation (DOT) will operate Kalaeloa Airport for all airport users. The air traffic control tower will regulate the air traffic flow depending on wind speed and direction, adjacent airspace use by Honolulu International Airport (HIA) and the number of runways operational. The airport master plan and layout plan established a baseline air traffic flow plan which has Runway 4R-22L as the precision, instrument runway, 4L-22R as the primary general aviation runway and occasional takeoffs on Runway 11 and landings on Runway 29. The flight tracks and patterns provided in these documents have been used to evaluate noise impacts. In order to minimize noise in the adjacent communities, the only landings on Runway 11 will be for emergencies only. Takeoffs on Runway 29 will be similarly treated. The DOT will make every effort to provide the Coast Guard access to the precision runway, 24 hours a day, 365 days a year. The DOT intends to keep heliports 1, 2 and 3 available for use by DoD. Paradrop training will be possible, but routes and drop zones will have to be worked out with the airport manager and the air traffic control manager. Any differences in air operations will have to be worked out with DOT Airports Division.

5090PJE10C
Ser 231/ 4537

Comment: The length of runway 11/29, the crosswind runway, in the state preferred alternative is 6,000 feet. This will limit the Coast Guard's operations because the length does not allow for a fully loaded C-130 to use this runway.

Response: The EIS evaluates the impacts from given plans, including the airport layout plan from the DOT. The second sentence provided in your comment will be added in the descriptions of the airport runways within the State-preferred alternative.

2. Although the EIS is not the appropriate document in which to address all of your comments, we trust that the outstanding comments are addressed elsewhere. Should you have any further questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.


MELVIN N. KAKU
By direction

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

OCT 9 1998

Mr. Fred Minato
Pacific Division, Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Dear Mr. Minato:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Navy Draft Environmental Impact Statement (DEIS) for the *Disposal and Reuse of Naval Air Station Barber's Point (NASBP), Hawaii*. Our comments are provided under the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act and the Council on Environmental Quality's (CEQ) NEPA Implementing Regulations (40 CFR 1500-1508).

The DEIS evaluates Navy disposal of the Barber's Point property and four reuse alternatives which emphasize various types of development (e.g., residential, light industrial, recreation, and commercial). Three alternatives include an airport, one incorporates all other land uses but the airport, and the fifth alternative, no action, assumes that the existing airport would not be used, and that the lands would be retained by the Navy in caretaker status.

We have rated the document *EC-2, Environmental Concerns- Insufficient Information*. please refer to the attached ratings summary for a more detailed description of EPA's system. We are concerned that the proposed project and DEIS does not develop appropriate mitigations for increased traffic as a result of reuse, that contamination of an underground source of drinking water has not been sufficiently described, and that the possible impacts of changes in airport use has not been sufficiently developed in the analysis.

Please send two copies of the FEIS to David Farrel, Chief, Federal Activities Office (code: CMD-2) at the letterhead address at the same time that it is sent to EPA's Washington, D.C. office for filing. Please contact me or Rosalyn Johnson of my staff at (415) 744-1574 if you have questions regarding our comments.

Sincerely,

FOR
David Farrel, Chief
Federal Activities Office

cc: Barry Pollack EPA Region IX
Shannon FitzGerald EPA Region IX
Mark Ripperda EPA Region IX

Attachments (3): Summary of EPA ratings
Detailed Comments
Pollution Prevention/Environmental Impact Reduction Checklist for
Airports

c:/myf/letters/dei/barber.dei 003154

COMMENTS

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

Purpose and Need

The DEIS's purpose and need section relates to the disposal of the property by the Navy, but does not contain information explaining the needs that are being met by the reuse action. Section 2.1.2 which describes agency and community input into reuse planning is relevant to the purpose and need for the reuse of Naval Air Station Barber's Point (NASBP), as is Section 5.6 which discusses land use plans, qualities and controls. Folding this information into or referencing this information in the purpose and need section would help readers to understand the selection process behind the proposed reuses.

Alternatives

40 CFR 1502.14 states that in the Alternatives "section agencies shall: "(a) Rigorously explore and objectively evaluate all reasonable alternatives.... (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits...." Please include additional information on the Large Airport and Small Airport Alternatives to replace the phrase "Similar to SPA" (the State Preferred Alternative) in Table 2.8-1. Readers would have an easier time evaluating the comparative merits of the alternatives if they were made more aware of the differences between them. Also, the analysis of each of the reasonable alternatives should be carried over into the environmental consequences section so that there is more detail available on the comparative impacts of each alternative.

GROUNDWATER AND DRINKING WATER

According to Section 3.1.2, there are two aquifers underlying the NASBP property, a deep confined aquifer, the Basal Aquifer, in the underlying basalt that is considered to be too deep to be susceptible to contamination from the surface, and the Caprock Aquifer. Groundwater beneath NASBP is contaminated with petroleum hydrocarbons, pesticides, PCBs, solvents, and metals, and Section 3.4 indicates that surface contamination with similar substances (i.e., PCBs, petroleum products, solvents, and lead) has occurred at NASBP. It is unclear in the DEIS text if the Navy's activities at Barber's Point (other than the recent fuel spill mentioned in the same section) have contributed to this contamination, or if contaminant levels in groundwater are high enough to require remediation. The FEIS should clarify these two points, and include a comparison of contaminant levels at NASBP to maximum contaminant levels (MCL) for drinking water. The FEIS should also state that both the shallow and deep aquifers qualify as underground sources of drinking water under the Safe Drinking Water Act.

Any additional mitigation that is necessary should be described in Section 4.1.2 on Groundwater Quality and/or Public Health and Safety, Section 4.4.

AIRPORT

Please include a figure in the FEIS that shows the configuration of the runway safety areas and runway object free areas with the state-preferred alternative's proposed reuses. This information would be useful in informing readers of the proximity of reuse activities to the Federal Aviation Administration's design criteria safety measures.

Section 4.1.7.2.2 should be expanded to include the expected number of flights and any other differences in airport operations under the state-preferred alternative. The possible impacts of those changes should be analyzed in the environmental consequences section of the document. For example, Section 3.2.4 indicates that the large coastal salt flat, located between Runway 4R-22L and Taxiway K is frequented by shorebirds though it rarely contains standing water. An increase in aircraft traffic, a change in the timing of flights, changes in the direction of takeoff, or other factors could increase the risk of bird air strike. This issue should be addressed in the appropriate section of the document.

CUMULATIVE IMPACTS

The expected use of Navy retained lands that are adjacent to the disposal properties should be described in the FEIS with attention to compatible vs. incompatible uses. This information is likely to fit best into the cumulative impacts section.

RELEVANT, REASONABLE MITIGATIONS

CEQ's "40 Most Asked Questions" about NEPA states that "All relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency, and thus would not be committed as part of the RODs [Records of Decision] of these agencies. Sections 1502.16(h), 1505.2(c). This will serve to [46 FR 18032] alert agencies or officials who can implement these extra measures, and will encourage them to do so. Because the EIS is the most comprehensive environmental document, it is an ideal vehicle in which to lay out not only the full range of environmental impacts but also the full spectrum of appropriate mitigation." EPA strongly encourages the Navy to incorporate traffic reduction and pollution prevention measures (see below) into the text of the FEIS as possible mitigation for consideration by the Economic Development & Environment Task Force (mentioned on page 2-2 of the DEIS), the rest of the Local Reuse Authority (LRA), and the local community. Reuse planning for military bases is an excellent opportunity to incorporate tools to improve future reuse for protection of human health and the environment.

ROADS AND TRAFFIC

In Section 4.1.7.2.3, Roads and Traffic, road widening is described as mitigation for increases in traffic as a result of the proposed action. Although the impact can be mitigated through road widening, road widening itself should then become a part of the action which would require it's own mitigations. The increase in traffic can be mitigated without need of additional mitigations by attempting to reduce the volume of traffic. The Navy's DEIS should include examine other mitigations for traffic impacts such as shuttle service (especially for special events), expansion of public transportation in the areas, and others. In this way, it is possible that significant impacts on traffic could be reduced to the point of non-

significance, which would not be the case if the impacts of special events are mitigated through road widening as stated on page 4-52. Should a mitigation measure proposed for the project have its own impacts, those impacts must be analyzed and discussed with appropriate mitigation.

POLLUTION PREVENTION

Pursuant to the Pollution Prevention Act of 1990 (PPA), "It is the policy of the United States that pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible, and disposal of other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner." The FEIS should describe mitigations that would encourage compliance with the PPA. Examples of possible mitigations are provided below.

- Page 4-91 suggests that the potential exists for changes in the character of the groundwater beneath the site and surface water in the coastal zone through post-development increased runoff. If changes in land use also increase surface pollution, writing and using a storm water pollution prevention plan would help to prevent reductions in water quality and protect the coastal zone.
- Page 3-53 indicates that approximately 63 per cent of solid waste production in 1991 was potentially recyclable. We suggest that the Navy incorporate more recent data on solid waste disposal into the FEIS, to be certain that the predictions of future solid waste generation are still below generation rates at the base. The Navy concluded that the proposed reuse scenarios would not be expected to generate more solid waste tonnage than the 1991 figures. However, the analysis goes on the state that a future peak of up to 1,160,000 cubic yards of waste would be generated by clearing, grubbing, and demolition activities (we are not certain of this number due to possible mathematical errors in the lower table on page 4-99). EPA applauds the Navy's suggestion that site development wastes could be reused or recycled to minimize land filling in the area, and would like to see recycling, waste reduction, and reuse incorporated into FEIS mitigations if solid waste impacts are noted as a result of using more recent data.

As reuse plans continue, we hope that a pollution prevention plan is developed for the area to address the issues described above, as well as hazardous materials reduction at the airport and light industrial facilities. A sample checklist of pollution prevention measures for airports is attached to this letter. Other pollution prevention checklists are available on the world wide web at www.hanford.gov/polprev/nepa/appendix.htm or through EPA.

POLLUTION PREVENTION/ENVIRONMENTAL IMPACT REDUCTION CHECKLIST FOR AIRPORTS

How Can Airports Affect the Environment?

The planning, design, construction, and operation/maintenance of airports can have a variety of impacts on the environment. These impacts include destruction or alteration of wildlife habitats, erosion, sedimentation, soil compaction, noise pollution, chemical pollution resulting from aircraft maintenance and deicing, aircraft emissions, contaminated runway runoff, and the generation of waste construction materials, as well as litter and other debris from administrative and food service operations. The implementation of pollution prevention strategies can help reduce the volume and toxicity of waste generated by an airport, minimize environmental effects, and reduce operating costs.

Also see checklists on Ecosystem Preservation and Protection, Siting, Energy Management, Vehicle Maintenance, Building/Housing Construction, Highways and Bridges, and Water Use.

What Questions Should Be Asked To Ensure That These Effects Are Minimized or Eliminated?

* Have other forms of mass transit been considered as an alternative to constructing a new airport? Expansion/improvement of commuter rail service may, for example, reduce the need for building new airports.

Noise Concerns. Noise pollution from airports can represent a significant negative impact on human and wildlife health and welfare. Concerns related to noise pollution can include noise-induced hearing loss, annoyance, and sleep disturbance. A number of techniques are, however, available to reduce noise pollution associated with airport operations.

* Does the airport construction and operation plan explain noise and noise analysis methodologies? Are single-event and cumulative noise metrics defined and used in the analysis?

* Are potential noise effects on human health and welfare analyzed? Have the locations of all noise-sensitive areas (e.g., residences, schools, parks, and ecologically sensitive wildlife areas) been identified? *

* Does the airport operation plan include provisions to increase the distance between the source of noise and sensitive areas? Techniques include changing flight corridors and flight altitudes, gate locations, and taxiway and runup pad patterns. *

* Does the airport construction plan include the use of noise barriers (e.g., berms, hush houses) to reduce impacts on the surrounding environment? *

* Does the airport operation plan include provisions to reduce noise pollution by reducing the number of operations that produce noise, reducing the duration of noise-making events, or limiting the operation of noisier aircraft types at the airport?

* Does the aircraft operation plan reduce the number of operations or noise making events that occur at night? Techniques include rescheduling night arrivals and departures to daytime, limiting engine maintenance at night, limiting the use of auxiliary and ground power units, providing

preferential runway use based on time of day, and limiting nighttime departures and arrivals based on sound level of the aircraft.

Aircraft Maintenance. Wastes generated as a result of aircraft maintenance activities can include organic solvents, oil and grease, tires, and batteries. Some of these wastes can be toxic or otherwise hazardous, and uncontrolled releases can contaminate surface waters, groundwater, and soils.

- * Will aircraft maintenance hangars be located to minimize the potential impacts of maintenance activities?
- * Is there a plan for spill reduction and collection in maintenance areas (such as the use of drip pans, secondary containment, and absorbent products)?
- * Will spill prevention and control plans for hazardous materials be located in aircraft service hangars?
- * Will aircraft maintenance be conducted on an as-needed basis? Performing maintenance on an as-needed basis rather than on a set schedule can help reduce waste generated by unnecessary maintenance and fluid changes.
- * Will aircraft maintenance shops use recycled maintenance products when possible? *
- * Will the facility collect engine and hydraulic oil for recycling? Segregating and recycling used oil can significantly reduce the quantity of waste generated and managed at an airport. *
- * Will the facility reuse or recycle spent antifreeze? Onsite antifreeze recycling units can be a cost-effective alternative to disposing of spent antifreeze for larger operations. *
- * Will precautions be taken to segregate oils and other hydraulic fluids from other waste streams (including solvents)? Oils and hydraulic fluids that are not commingled can be recycled into usable products. *
- * Will a bulk fluids distribution system be cost effective? These distribution systems allow employees to dispense only as much product as is necessary for a job, and they reduce the potential for spills associated with the use of large, unwieldy containers.
- * Will the facility's solvent sink be operated to reduce environmental impacts? Environmentally preferable operating practices include pre-rinsing parts with dirty solvent before using fresh solvent to extend solvent life, removing parts from the sink slowly to reduce solvent dragout, using drip racks to reduce solvent loss, keeping sink lids closed when not in use to minimize evaporation of solvent, not leaving solvent streams running, and cleaning out sludges regularly to maintain fresh solvent.
- * Will the facility use aqueous or semi-aqueous cleaners as an alternative to solvents when possible? Aqueous and semi-aqueous cleaners already are being used by several major air carriers to reduce solvent use.
- * Will tires removed from aircraft or service vehicles be recapped or recycled for use in other

applications?

* Will lead-acid, lithium, and nickel-cadmium batteries be collected and stored for recycling and metals recovery? *

* Will the facility collect and recycle scrap metals generated at shops (e.g., used parts, empty material storage drums)? In some instances, punctured aerosol spray cans and drained oil filter casings may also be recycled as scrap. *

* Will hazardous materials be properly stored and handled? Proper storage and handling can include labeling containers, protecting materials from the elements, maintaining secondary containment, ensuring the compatibility of stored materials to avoid explosion hazards, and following instructions on the product's Material Safety Data Sheets (MSDSs). *

* Will access to hazardous materials be limited? Limiting access to hazardous materials allows for easier tracking of chemical usage and helps reduce unnecessary waste generation.

Aircraft Painting. Wastes associated with aircraft painting operations include unused paints, dirty thinner, and emissions of volatile organic compounds (VOCs) from thinners and solvents. Used spray booth filters are also waste products that may be generated. Proper training of employees and the use of high efficiency equipment can help reduce waste generation.

* Will aircraft painting operations be located and enclosed to minimize the potential impacts of painting activities?

* Will a non-solvent based paint stripping system be used? Media blast systems have proven to be an effective alternative to solvent strippers.

* Will employees be trained to minimize the amount of waste paint generated by mixing only the amount of paint needed?

* Will the facility employ high efficiency painting technologies? When properly used, high volume, low pressure (HVLP) and electrostatic painting systems can reduce the amount of paint needed for a job and reduce the amount of VOCs released to the air.

* Will employees be trained to use as little solvent/thinner as possible to clean up after painting activities?

* Would it be cost effective to install a distillation unit to recover solvents for reuse? *

* Will the facility employ a gun cleaning station? Gun cleaning stations capture the thinner/solvent shot through the gun and condense it for reuse instead of venting to the air. In some cases, it may be possible to use water-based gun cleaners as an alternative to solvent thinner.

* Will the paint shop utilize reusable polystyrene booth filters? Traditional paint booth filters often must be handled as hazardous waste because of the presence of wet paint or paint containing lead or chromium. Polystyrene filters can be cleaned with compressed air and reused (with the paint residue captured for disposal). Once it can no longer be used, the cleaned filter

can often be disposed of by dissolving it in a waste thinner drum.

Aircraft Washing. Aircraft washing typically involves pressure spraying the aircraft with cleaning agents, brushing surfaces with an alkaline water-based cleaner, and rinsing with hot or cold water. This activity can generate large quantities of wastewater that may be contaminated with oils, grease, dirt, and detergent.

- * Will a centralized, stationary washpad area be located to reduce impacts to the surrounding environment?
- * Will washwaters be contained to reduce runoff to the surrounding environment? Will an oil/water separator be used?
- * Can water from the aircraft washpad be captured, filtered, and reused in aircraft washing or other activities? *
- * Will the facility use the least toxic cleaner/detergent necessary to effectively clean the aircraft?
- * Will equipment (such as flow restrictors) be used to control the amount of water used to wash aircraft?

Deicing Activities. The chemicals used in aircraft and runway deicing activities are a glycol/water mixture that can be released to the environment (soils, surface water and groundwater) via stormwater runoff. Deicing chemicals also may be ingested by deer and other wildlife.

- * Will deicing operations be located at a centralized, stationary position to allow aircraft to stop over a drain that captures the glycol-based fluids? Mobile deicers typically do not have secondary containment systems and thus can release deicing chemicals into the environment.
- * Can deicing chemicals be collected and reused in aircraft deicing or other purposes? Deicing chemicals can be reused in aircraft applications if they meet performance specifications. *
- * Would it be cost effective to install a computerized spraying system to apply deicing chemicals? These systems, which are in use today, are more efficient and require less chemicals per square foot.
- * Does the facility construction plan call for the installation of in-pavement heating elements (e.g., tubing filled with heated liquid or gas and electrical elements) to aid in taxiway deicing? The use of this type of equipment can reduce the quantity of deicing chemicals that need to be applied.

Concession/Food Services. Concession shops and food service operations can generate significant quantities of solid waste, such as corrugated cardboard, paperboard, office paper, newspapers, magazines, wooden pallets, aluminum, plastic, and glass containers, as well as leftover food. The application of pollution prevention techniques to these operations can help reduce the volume of waste that an airport must dispose of, as well as associated waste management costs.

* Will the facility be designed and constructed to facilitate an in-terminal recycling program for such materials as cardboard, beverage containers, and newspapers that will be convenient and easy to follow for both passengers and shop keepers?

Administrative Offices. Airports, like other administrative offices, can generate large quantities of waste paper and consume large amounts of energy from lighting, heating and cooling systems, and computers.

* Will office paper generated in the airport's administrative offices be collected for recycling? *

* Will the airport administration facilities specify the purchase of recycled content paper and other office products? *

* Will the facility plan call for the purchase of energy efficient computers that shut off when not in use? Executive Order 12845 committed the Federal Government to purchase energy-efficient computers, monitors, and printers to the maximum extent possible.

* Can motion sensors and other energy conservation techniques be used to reduce energy usage?

Other References

Federal Interagency Committee on Noise (FICON). August 1992. "Federal Agency Review of Selected Airport Noise Analysis Issues."

National Research Council (NRC), Assembly of Behavioral and Social Sciences, Committee on Hearing, Bioacoustics, and Biomechanics (CHABA). 1977. "Guidelines for Preparing Environmental Impact Statements on Noise." Report of Working Group 69.

U.S. Department of Transportation, Federal Aviation Administration. 1989. "Final Environmental Impact Statement for Baltimore/Washington International Airport Extension of Runway 15L/33R."

U.S. Department of Transportation, Federal Aviation Administration. February 1991. "Management of Airport Industrial Waste." AC: 150/5320-15.

U.S. EPA. October 1993. "Eliminating CFC-113 and Methyl Chloroform in Aircraft Maintenance Procedures." EPA-430-B-93-006.

U.S. EPA, Region VIII. March 1992. "Operational Approach for Developing a Pollution Prevention by Design Project: A Model Developed from the Denver International Airport's Pollution Prevention Project."



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4525

21 DEC 1998

Mr. David Farrel, Chief
Federal Activities Office
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Farrel:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 9, 1998, regarding the subject document. We acknowledge that your department has rated the document EC-2, Environmental Concerns – Insufficient Information. We understand that you have concerns about the mitigations for increased traffic, the description of contamination as it relates to the underground source of water, and the possible impacts of changes in airport use. Your comments are addressed below as follows:

National Environmental Policy Act (NEPA)

Comment: The Draft EIS's purpose and need section relates to the disposal of the property by the Navy, but does not contain information explaining the needs that are being met by the reuse action. Section 2.1.2, which describes agency and community input into reuse planning is relevant to the purpose and need for the reuse of NAS Barbers Point, as is Section 5.6 which discusses land use plans, qualities and controls. Folding this information into or referencing this information in the purpose and need section would help readers to understand the selection process behind the proposed reuses.

Response: The purpose and need is specific to the Navy action (disposal) only. For this reason, the purpose and need concerning reuse is not presented in Section 1.4 of the Draft EIS.

Comment: 40 CFR 1502.14 states that in the Alternatives section agencies shall: "(a) Rigorously explore and objectively evaluate all reasonable alternatives . . . (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits . . ." Please include additional information on the Large Airport and Small Airport Alternatives to replace the phrase "Similar to State Preferred Alternative (SPA)" in Table 2.8-1. Readers would have an easier time evaluating the comparative merits of the alternatives if they were made more aware of the differences between them. Also, the analysis of each of the reasonable alternatives should be carried over into the environmental consequences section so that there is more detail available on the comparative impacts of each alternative.

Response: The use of “similar to SPA” is used to make the table easier to read and easier to identify when impacts in certain alternatives differed substantially. To address your concerns, Table 2.8-1, Summary of Impacts and Mitigation for All Alternatives, will be expanded to include specific findings for each of the alternatives where quantitative comparisons can be made. These findings, if appropriate, will be added to Chapter Four of the Final EIS.

GROUNDWATER AND DRINKING WATER

Comment: According to Section 3.1.2, there are two aquifers underlying the NAS Barbers Point property, a deep confined aquifer, the Basal Aquifer, in the underlying basalt that is considered to be too deep to be susceptible to contamination from the surface, and the Caprock Aquifer. Groundwater beneath NAS Barbers Point is contaminated with petroleum hydrocarbons, pesticides, Polychlorinated Biophenyls (PCB), solvents, and metals, and Section 3.4 indicates that surface contamination with similar substances (i.e., PCB, petroleum products, solvents, and lead) has occurred at NAS Barbers Point. It is unclear in the Draft EIS text if the Navy’s activities at Barbers Point (other than the recent fuel spill mentioned in the same section) have contributed to this contamination, or if contaminant levels in groundwater are high enough to require remediation. The Final EIS should clarify these two points, and include a comparison of contaminant levels at NAS Barbers Point to maximum contaminant levels (MCL) for drinking water. The Final EIS should also state that both the shallow and deep aquifers qualify as underground sources of drinking water under the Safe Drinking Water Act. Any additional mitigation that is necessary should be described in Section 4.1.2. on Groundwater Quality and/or Public Health and Safety, Section 4.4.

Response: The shallow and deep aquifers identified in Section 3.1.2 may qualify as underground sources of drinking water under the federal Safe Drinking Water Act; however, the State of Hawaii has a more stringent standard for salinity and does not recognize these aquifers as underground sources of drinking water for potable use. Section 3.1.2 describes the salinity of these aquifers and explains that both are considered brackish and therefore, unacceptable to the State of Hawaii for potable use.

The last sentence in Section 3.1.2 is erroneous because the groundwater beneath NAS Barbers Point is not “contaminated” with petroleum hydrocarbons, pesticides, PCB, solvents, and metals. Rather, the groundwater beneath NAS Barbers Point has been “monitored” for these substances. Because the findings from monitoring are summarized in the previous paragraph (of the Draft EIS), this sentence will be deleted in the Final EIS. Additional information will be added in Section 3.1.2 that (1) compares the concentrations of substances detected in the groundwater with their respective MCL and (2) states that human health risk assessments determined that remediation of specific substances in groundwater was not required under Comprehensive Environmental Response, Compensation and Liability Act. No mitigation is required.

AIRPORT

Comment: Please include a figure in the Final EIS that shows the configuration of the runway safety areas and runway object free areas with the state-preferred alternative's proposed reuses.

This information would be useful in informing readers of the proximity of reuse activities to the Federal Aviation Administration's design criteria measures.

Section 4.1.7.2.2 [4.1.7.2.1] should be expanded to include the expected number of flights and any other differences in airport operations under the state-preferred alternative. The possible impacts of those changes should be analyzed in the environmental consequences section of the document. For example, Section 3.2.4 indicates that the large coastal salt flat, located between Runway 4R-22L and Taxiway K is frequented by shorebirds though it rarely contains standing water. An increase in aircraft traffic, a change in the timing of flights, changes in the direction of takeoff, or other factors could increase the risk of bird air strike. This issue should be addressed in the appropriate section of the document.

Response: A new figure, Figure 4.4-1, will be added to Section 4.4.3, Airport Protection Zones, to illustrate the Federal Aviation Administration design criteria explained in the text.

Section 4.1.7.2.1 addresses the potential impacts and mitigation of the airport (an "issue") on air transportation (a "resource") and is not intended to address impacts on all resources (e.g., noise and public safety). For this reason, the planned number of aircraft operations at Barbers Point will be added in Section 4.1.7.2.1, and references to other sections of the report that discuss the impacts of the airport on other resources will be added to Section 4.1.7.2.1. For example, Section 4.4.3.2 will be referenced for information about the effect of airport use on bird air strikes (Section 4.4.3.2 includes the statement that the airport is required to comply with 14 C.F.R. §139.337 to assess and, if needed, to minimize the risk of bird air strikes).

CUMULATIVE IMPACTS

Comment: The expected use of Navy retained lands that are adjacent to the disposal properties should be described in the Final EIS with attention to compatible vs. incompatible uses. This information is likely to fit best into the cumulative impacts section.

Response: The cumulative impacts due to activities on the Navy retained lands and the proposed reuse areas are evaluated within each resource area in Chapter Four. A brief discussion of compatible vs. incompatible land uses as it relates to the Navy-retained property and the proposed reuse areas will be added to Section 5.6, Consistency with Land Use Plans, Policies and Controls.

RELEVANT, REASONABLE MITIGATIONS

Comment: Council on Environmental Quality's "40 Most Asked Questions" about NEPA states that "All relevant, reasonable mitigation measures that could improve the project are to be

identified, even if they are outside the jurisdiction of the lead agency, and thus would not be committed as part of the Records of Decision of these agencies. Sections 1502.16(h), 1505.2(c). This will serve to [46 FR 18032] alert agencies or officials who can implement these extra measures, and will encourage them to do so. Because the EIS is the most comprehensive environmental document, it is an ideal vehicle in which to lay out not only the full range of environmental impacts but also the full spectrum of appropriate mitigation.” Environmental Protection Agency (EPA) strongly encourages the Navy to incorporate traffic reduction and pollution prevention measures (see below [in EPA’s letter]) into the text of the Final EIS as possible mitigation for consideration by the Economic Development and Environment Task Force (mentioned on page 2-2 of the Draft EIS), the rest of the Local Reuse Authority, and the local community. Reuse planning for military bases is an excellent opportunity to incorporate tools to improve future reuse for protection of human health and the environment.

Response: Please note that the Economic Development and Environment Task Force was active during the planning process and has since been dissolved.

Roads and Traffic. The EIS identifies relevant and reasonable mitigation measures appropriate to the level of detail presented in *the Naval Air Station Barbers Point Community Redevelopment Plan* (Helber Hastert & Fee, Planners, March 1997) and its December 1997 amendment. Chapter 4.1.7.1 and Tables 4.1-8 through 4.1-10 indicate that special traffic control and parking plans, including shuttle buses, would be needed, and are based on reasonable assumptions given the information that was available from *the Naval Air Station Barbers Point Community Redevelopment Plan* and Amendment No. 1. The creation and evaluation of traffic control and parking plans would be premature as the traffic analysis is based upon general land uses, with the exception of several special attractions. While specific traffic and parking plans to mitigate the impacts of major events held at special attractions would be helpful to agencies responsible for this type of planning, this scope of work would go beyond the purpose of this EIS. Furthermore, public transportation improvement plans should be developed with input from the responsible agencies that understand the local and regional transportation needs and who must find the resources, e.g., financial, to develop and implement such plans.

Transportation agencies involved in the planning and implementation process have been included in the distribution of this Draft EIS and include the State Department of Transportation and the City and County of Honolulu Department of Transportation Services. In addition, the Leeward Oahu Transportation Management Authority is aware of the local and regional transportation issues and has expressed an interest in directing an effort to meet to discuss the issues.

Pollution Prevention. The EIS suggests a number of mitigation measures that could be implemented by acquiring entities. With respect to your suggestions, we are adding a statement in Sections 4.1.2.2 and 4.1.3.2 to indicate that writing and implementing storm water pollution prevention plans would help to prevent reductions in water quality and protect the coastal zone.

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Ser 2317 4525

In response to your last two comments, updated solid waste stream data could not be obtained. Corrections will be made to the table containing clearing/grubbing and demolition wastes.

Should you have any questions, please contact the undersigned at (808) 471-9338 or by facsimile transmission at (808) 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at (808) 474-5949.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BENJAMIN J. CAYETANO
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TIMOTHY E. JOHNS
DEPUTY DIRECTOR

September 21, 1998

Mr. Fred Minato
Pacific Division, Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860

Dear Mr. Minato:

SUBJECT: Draft Environmental Impact Statement for the Disposal and Reuse of Naval Air Station, Barbers Point, Hawaii

FILE NO.: Code 231FM

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas which are important for the maintenance of streams and the replenishment of aquifers.

- [X] We recommend coordination with the county government to incorporate this project into the county's 20-year Water Use and Development Plan, which is subject to regular updates.
- [X] We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the 20-year State Water Projects Plan, which is subject to regular updates.
- [] We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- [] A Well Construction Permit and/or a Pump Installation Permit from the CWRM would be required before ground water is developed as a source of supply for the project.

Mr. Fred Minato
Page 2
September 21, 1998

- The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the CWRM would be required prior to use of this source.
- Groundwater withdrawals from this project may affect streamflows. This may require an instream flow standard amendment.
- If the proposed project diverts additional water from streams or if new or modified stream diversions are planned, the project may need to obtain a stream diversion works permit and petition to amend the interim instream flow standard for the affected stream(s).
- If the proposed project performs any work within the bed and banks of a stream channel, the project may need to obtain a stream channel alteration permit and a petition to amend the interim instream flow standard for the affected stream(s).
- OTHER:

State Well No. 2103-01 is permitted for Military water use. Administrative Rule 13-171-23 provides for the modification of the water use permit to change the use from Military to some other type of use. Unless the permit is modified, the permit may be subject to revocation when military use of the land and water ceases.

State Well No. 2103-03 taps the Ewa-Kunia Aquifer System. The Commission on Water Resource Management (Commission) is currently re-evaluating the sustainable yield of the aquifer, which is expected to be reduced due to the cessation of return irrigation recharge from sugarcane agriculture. Our preliminary estimates indicate that the aquifer may be over-allocated.

With regard to nonpotable water demand, it is the policy of the Commission to promote the viable and appropriate reuse of reclaimed water in so far as it does not compromise beneficial uses of existing water resources. Particularly because this project overlies the brackish Ewa Caprock Aquifer, and not a potable water aquifer, the Commission encourages the use of reclaimed water to meet nonpotable needs.

If there are any questions, please contact Lenore Nakama at 587-0218.

Sincerely,


TIMOTHY E. JOHNS
Deputy Director

LN:ss

c: DLNR, State Parks
DLNR, Land Division



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4515

21 DEC 1998

Mr. Timothy E. Johns
Deputy Director
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Johns:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION, BARBERS POINT

Thank you for your letter of September 21, 1998, regarding the subject document. We acknowledge that the Commission on Water Resource Management (CWRM) has reviewed the water resources sections of the subject DEIS and has recommended the following activities:

- a. Coordination with the county government to incorporate the project into the county's 20-year Water Use and Development Plan.
- b. Coordination with the Land Division of the State Department of Land and Natural Resources to incorporate the project into the 20-year State Water Projects Plan.

Coordination will be the responsibility of the Barbers Point Naval Air Station Redevelopment Commission, the local redevelopment authority responsible for implementing reuse. This information, along with your above noted recommendations, will be included in Section 4.1.2.2, Potential Impacts and Mitigation for Groundwater Quality and Section 4.1.3.2, Surface Water Quality.

The information you provided about Well No. 2103-01 differs from our records. A USGS report indicated that Well No. 2103-01 was built in 1942 and is owned by the Navy. According to this report and confirmed with Roy Hardy at the State of Hawaii Department of Land and Natural Resources, this well does not have a water use permit. The Navy Public Works Center, Pearl Harbor, has indicated that this well is used for monitoring of chlorides and water levels and is not used for pumping water. The Navy intends to retain this well.

As for State Well No. 2103-03, which is identified as USGS Well No. 2103-03 in the DEIS, the information you provided is presented in Section 4.7.1.2 of the document. In that section we acknowledge that the Navy's well pumps are located in the Ewa-Kunia aquifer, a groundwater control area where the sustainable yield is presently being assessed by the CWRM, and that it is likely that the aquifer water withdrawal allocations will be decreased as a result of the assessment.

With regard to non-potable water use, we understand that CWRM promotes the viable and appropriate reuse of reclaimed water in so far as it does not compromise beneficial uses of existing water resources, and CWRM encourages the use of reclaimed water to meet nonpotable needs for the subject project. For these reasons, the following sentence will be removed from Section 4.7.2.2, Potential Impacts and Mitigation [as it relates to non-potable water], of the DEIS: "Use of the caprock aquifer is considered nonviable given the CWRM's concerns relative to potable water supply aquifer impacts."

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD V. RICHARDSON
DIRECTOR OF CIVIL DEFENSE

ROY C. PRICE, SR.
VICE DIRECTOR OF CIVIL DEFENSE



PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

October 9, 1998

TO: Mr. Fred Minato
Pacific Division, Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134

FROM: Roy C. Price, Sr.
Vice Director of Civil Defense

A handwritten signature in black ink that reads "Roy C. Price".

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT NOTICE FOR THE
DISPOSAL AND REUSE OF THE NAVAL AIR STATION BARBERS
POINT (NASBP), HAWAII

We appreciate this opportunity to comment on the U.S. Navy, Pacific Division, Naval Facilities Engineering Command, Draft Environmental Impact Statement (DEIS), for the disposal and reuse of NASBP, Hawaii.

State Civil Defense (SCD) is concerned about outdoor siren warning system coverage in the NASBP area. There are no known outdoor warning sirens which are currently operational in either surplus or retained portions of NASBP. SCD requests that the Navy undertake measures to provide siren warning coverage to retained housing and support areas, which will overlap and interlock with new sirens which will be installed in developed surplus areas. An attached diagram depicts recommended siren locations to be installed by the Navy as well as other agencies. This would entail the installation of three solar powered 121 dB omnidirectional sirens in the interest of public safety. The exact placement of these sirens can be resolved after the final plan for NASBP is in place.

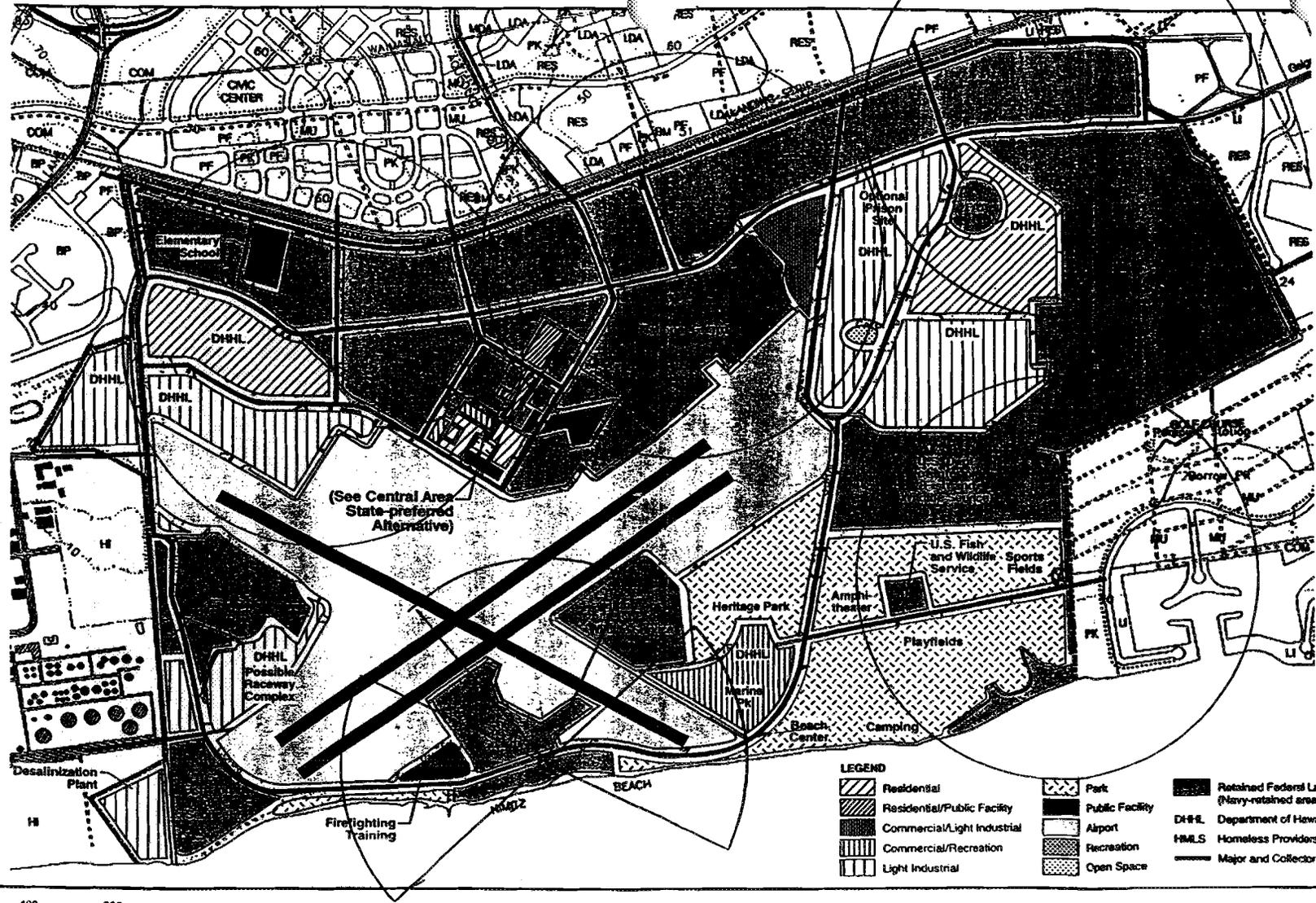
Please note that most of the NASBP coastal area is in the 100-year floodplain --Zone A and Zone AE, according to the Flood Insurance Rate Map, 150001 0130C, revised September 28, 1998. Any construction or reuse of facilities in these zones must abide by the regulations on floodplain management.

Mr. Fred Minato
October 9, 1998
Page 2

Our SCD planners and technicians are available to discuss this further if there is a requirement. Please have your staff call Mr. Norman Ogasawara of my staff at 733-4300.

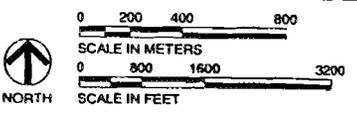
Attachment

A-6-53



LEGEND

	Residential		Park		Retained Federal Lands (Navy-retained areas unless otherwise noted)
	Residential/Public Facility		Public Facility		DHHL Department of Hawaiian Home Lands
	Commercial/Light Industrial		Airport		HMLS Homeless Providers
	Commercial/Recreation		Recreation		Major and Collector Roads
	Light Industrial		Open Space		



Sources: Helber Hostert & Fee Planners (March 1997 and December 1997).
 PACNAVFACENCOM, map of federal retention areas as of 5/23/97

Figure 2.3-1
LARGE AIRPORT ALTERNATIVE
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P JE10C
Ser 231/ 4516

21 DEC 1998

Mr. Roy C. Price, Sr.
Vice Director of Civil Defense
State of Hawaii, Department of Defense
Office of the Director of Civil Defense
3949 Diamond Head Road
Honolulu, HI 96816-4495

Dear Mr. Price:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 9, 1998, regarding the subject document. We acknowledge your concerns regarding the warning system coverage at Barbers Point and provide the following responses:

Comment: State Civil Defense (SCD) is concerned about outdoor siren warning system coverage in the NAS Barbers Point area. There are no known outdoor warning sirens, which are currently operational in either surplus or retained portions of NAS Barbers Point. SCD requests that the Navy undertake measures to provide siren warning coverage to retained housing and support areas, which will overlap and interlock with new sirens which will be installed in developed surplus areas. An attached diagram depicts recommended siren locations to be installed by the Navy as well as other agencies. This would entail the installation of three solar powered 121 dB omnidirectional sirens in the interest of public safety. The exact placement of these sirens can be resolved after the final plan for NAS Barbers Point is in place.

Response: This is an operational issue outside the scope of the EIS. There are a number of issues that will have to be coordinated between the Navy, other federal agencies on retained lands, the Local Redevelopment Authority (LRA), and various state and county agencies. Ongoing discussions are currently taking place to coordinate the provision of infrastructure on the base after disposal. Your concerns regarding the outdoor siren warning system will be shared with the involved parties. A copy of this letter will be forwarded to Mr. William M. Bass, Executive Director, Barbers Point Naval Air Station Redevelopment Commission.

Comment: Please note that most of the NAS Barbers Point coastal area is in the 100-year floodplain – Zone A and Zone AE, according to the Flood Insurance Rate Map, 150001 0130C, revised September 28, 1998. Any construction or reuse of facilities in three zones must abide by the regulations on flood plain management.

Response: Flood plain issues and requirements are disclosed in Sections 3.1.3, 4.7.4, and 5.6.7 of the EIS. Regulation of construction on or reuse of facilities in these zones after property disposal would be a LRA responsibility.

5090P 1E10C
Ser 231/ 4516

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Mr. William M. Bass, Executive Director
Barbers Point Naval Air Station
Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BENJAMIN J. CAYETANO
GOVERNOR



~~XXXXXXXXXXXXXXXXXXXX~~
~~XXXXXXXXXXXXXXXXXXXX~~
Paul G. LeMahieu, Ph.D.
Superintendent

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2350
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

September 16, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division, Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

Subject: NASBP Reuse Draft EIS

The Department of Education (DOE) has the following comments on the subject draft environmental impact statement (EIS):

1. In October, 1998, the DOE will be sending in its Application for Public Benefit Transfer of Surplus Federal Real Property for Educational Uses. If approved, title to the land beneath Barbers Point Elementary School will be transferred to the State of Hawaii for the continued operation of the school.
2. The 1997 enrollment at Barbers Point Elementary School was 565. Enrollment for the current 1998 school year is 494, while the capacity is 753. The 347 to 554 additional elementary students projected to result from the reuse alternatives will have a significant impact upon the school.

The DOE presently does not have plans to construct a new elementary school in the vicinity of NAS Barbers Point. Therefore, in addition to the mitigative measure identified in Table 2.8-1 (construct a second elementary school in the area), the table should also include the possibility of a new classroom building(s) at Barbers Point Elementary School and/or redistricting.

Mr. Fred Minato (Code 231FM)

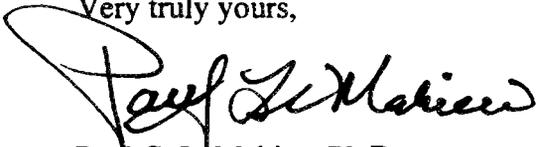
Page 2

September 16, 1998

3. We would appreciate being kept informed on the development timetable of the 1,281 to 1,900 housing units proposed under the various alternatives. The timing and quantity of units will have a direct bearing on the adequacy of school facilities.

Thank you for the opportunity to comment. If you have any questions, please call Mr. Sanford Beppu at 733-4862.

Very truly yours,



Paul G. LeMahieu, Ph.D.
Superintendent

PLeM:hy

cc: OBS
Principal, Barbers Point Elementary



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2317 4514

21 DEC 1998

Dr. Paul G. LeMahieu, Superintendent
State of Hawaii
Department of Education
P.O. Box 2360
Honolulu, HI 96804

Dear Dr. LeMahieu:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of September 16, 1998, regarding the subject document. Your plan to submit the Department of Education's (DOE) Application for Public Benefit Transfer of Surplus Federal Real Property for Educational Use this month has been conveyed to Ms. Genie M. Wery of our Real Estate Division. This action, if approved, will allow title to the land beneath Barbers Point Elementary School to be transferred to the State of Hawaii for the continued operation of the school. Thank you for keeping us apprised of your plans.

We acknowledge that the DOE has reviewed the Draft EIS and has informed us that there are no plans to construct a new elementary school in the vicinity of NAS Barbers Point. For this reason you recommended including the possibility of a new classroom building(s) at Barbers Point Elementary School and/or redistricting as additional mitigation measures in the Final EIS. These recommendations will be incorporated into Table 2.8-1 and Section 4.5.2.1, Education, of the Final EIS.

Information concerning the development timetable of the housing units proposed under the various alternatives should be obtained from the Barbers Point Naval Air Station Redevelopment Commission. The Commission's Executive Director is Mr. William M. Bass, who can be reached at 674-3540.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII



KALI WATSON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879
HONOLULU, HAWAII 96805

October 29, 1998

Mr. Melvin N. Kaku
Director, Environmental Planning Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Attention: Mr. Fred Minato (Code 231FM)

Dear Mr. Kaku:

Thank you for allowing our review of the Draft Environmental Impact Statement (DEIS) for Disposal and Reuse of Naval Air Station (NAS), Barbers Point, Hawaii, dated August 1998.

We note that mitigation measures have been identified to assure that no significant adverse impacts will result from the proposed transfers and reuse of the surplus properties. Protective covenants will be incorporated in deeds to ensure appropriate treatment of archaeological, cultural, and natural resources affected by proposed reuses.

An estimated 31% increase in storm water runoff is anticipated. The EIS should discuss the drainage channel along the western edge of BPNAS; its present and potential capacity, and if it could be improved and incorporated as part of the drainage system for the Kalaeloa District.

We have no other comments at this time. If you have any questions, call Joe Chu of our Planning Office at 587-6421.

Aloha,

KALI WATSON, Chairman
Hawaiian Homes Commission



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C

Ser 231/—

4521

21 DEC 1998

Mr. Kali Watson, Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
State of Hawaii
P.O. Box 1879
Honolulu, HI 96805

Dear Mr. Watson:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 29, 1998, regarding the subject document. We acknowledge your concerns regarding the drainage channel and provide the following response:

Comment: An estimated 31% increase in storm water runoff is anticipated. The EIS should discuss the drainage channel along the western edge of NAS Barbers Point; its present and potential capacity, and if it could be improved and incorporated as part of the drainage system for the Kalaeloa District.

Response: The drainage channel along the western edge of NAS Barbers Point was not addressed in the Draft EIS because: (1) it is not currently receiving storm water runoff from NAS Barbers Point, and (2) the details (e.g., runoff quantities that can be accommodated by specific mitigation measures) are being evaluated in the infrastructure master plan being developed by the Barbers Point NAS Redevelopment Commission. We understand that the infrastructure master plan does not include use of the drainage channel along the western edge of NAS Barbers Point because the capacity of the drainage channel is reserved for other development areas such as the City of Kapolei and The Estate of James Campbell. Further information concerning drainage should be addressed to Mr. William Bass, Executive Director of the Barbers Point NAS Redevelopment Commission.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

5090P.1F10C
Ser 231/ 4521

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to:

November 9, 1998

97-076A/epo

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

Subject: Draft Environmental Impact Statement (DEIS)
Disposal and Reuse of Naval Air Station
Barbers Point, Hawaii

Thank you for allowing us to review and comment on the subject document. We have the following comments to offer:

Noise

Title 11, Chapter 43 is quoted in the draft environmental impact statement, however, the Department of Health has since adopted new rules. The applicant should review and ensure that any redevelopment activities comply with the provisions of the new Chapter 11-46, Hawaii Administrative Rules, "Community Noise Control."

Should there be any questions on this matter, please contact Mr. Jerry Haruno, Environmental Health Program Manager, Noise, Radiation and Indoor Air Quality Branch at 586-4701.

Solid Waste

In Section 3.7.6, entitled, "Solid Waste," the discussion of the existing solid waste management activities and facilities fails to address the ongoing activities within the Barbers Point Waste Management Area (BPWMA). Current activities include: a municipal solid waste landfill (currently restricted to receiving sewage sludge from the Fort Kam and

Schofield Barracks wastewater treatment plants [WWTPs], but never properly closed under Hawaii Administrative Rules [HAR] Chapter 58.1); a biosolids co-composting facility processing sewage sludge from Fort Kam, Schofield Barracks, and the City's Honouliuli WWTP; and a Oily Waste Remediation Facility receiving oily waste from the Navy's wastewater system and processing it as a petroleum contaminated soil. While it is proposed that this area would remain under Federal control, there is no discussion relating to the need for proper closure of the existing landfill or the impact of these ongoing activities on the proposed surrounding uses.

In Section 4.7.6, entitled, "Solid Waste," the discussion of the impacts of the proposed action on the island-wide solid waste management infrastructure does not address the State and Federal goals for waste reduction, nor the internal Department of Defense (DOD) policy relating to recycling.

The decommissioning of the Naval air station will result in the demolition of numerous structures, and a corresponding generation of considerable construction demolition waste. The final EIS should address the need for the dismantling of older structures and a requirement that any demolition activity require the development of a waste management and diversion plan.

In addition, while the additional Municipal solid waste and construction demolition waste generated by the proposed activities may not be considered significant based on the degree of increase in generation, both the State and Federal goals relating to waste generation is to decrease disposal through the implementation of diversion options. The final EIS should address strategies to reduce waste disposal from the proposed activities by a minimum of 25 percent.

Any questions on these comments should be addressed to Mr. John Harder, Manager of the Office of Solid Waste Management at 586-4240.

Drinking Water Comments

Drinking Water Section

1. Section 4.7.1.2 of the draft Environmental Impact Statement (EIS) states that for the purposes of water demand analysis, it was assumed that the Board of Water Supply (BWS) would be the ultimate provider of

potable water in the reuse area, and that service from the Navy's system would be discontinued.

Section 4.7.1.2 also states that to implement service in the reuse area from the BWS, however, would require new distribution infrastructure. To date, the BWS has indicated a strong reluctance to assume ownership of the existing Naval Air Station, Barbers Point (NASBP) water system. This reluctance is based on the age of the system, 20 to 40 years old, and the differences between BWS and military design standards, construction requirements, and material specifications.

Comment:

The draft EIS does not address the estimated cost to install a new potable water system infrastructure, which apparently is needed to have the BWS assume ownership of the Navy's water system.

2. Section 4.7.2.2 states that non-potable water from the caprock aquifer and reclaimed effluent from the Honouliuli Waste Water Treatment Plant could be used for irrigation in the reuse area.

Comment:

If a non-potable water system is installed, precautions must be taken to prevent children, families and workers using the reuse area from inadvertently ingesting the non-potable water. Non-potable water spigots must be clearly posted with warning signs to prevent the consumption of non-potable water.

Adequate measures must also be taken to prevent cross connection and backflow conditions between the potable water system and the non-potable water system.

If you have any questions on the potable and non-potable water comments, please contact Mr. Donald Yasutake of the Safe Drinking Water Branch at 586-4258.

Underground Injection Control (UIC) Section

1. According to UIC records, 251 drainage drywells exist at the NASBP. Section 3.7.4 of the DEIS states that

there are 270 drainage drywells in service at the facility. The correct number of drywells needs resolution.

2. Statements made in Sections 4.7.4.2 Mitigation, and 5.6.2 regarding new parcel owners need to transfer or obtain the UIC permit from the Navy is misleading. The UIC permits issued to the Navy are nontransferable. The proper terms to use in describing the action are revoke, modify and/or reissue, not transfer. Also, UIC permits are obtained from the Department of Health, not the Navy.
3. NASBP is located both above and below the UIC line. Section 5.6.2 of the document states, "The surplus areas are oceanside (below) of the UIC; thus no drinking water wells are present." Based on the documents maps, it appears that the northeast portion of the surplus area is located mountain-side (above) of the UIC Line. Also, areas located below the UIC line are not precluded by regulation from having drinking water wells. Drinking water wells can exist below the UIC line. Section 5.6.2's statement should be corrected accordingly.

If you should have any questions on the UIC comments, please contact Mr. Norris Uehara of the Safe Drinking Water Branch at 586-4258.

Solid and Hazardous Waste Branch

We have reviewed the subject draft EIS and offer the following comments:

Our records indicate that many underground storage tanks (USTs) at the Naval Air Station (NAS) Barbers Point have not yet been properly closed in accordance with federal regulations, 40 CFR 280 Subpart G. In addition, several petroleum releases from USTs at NAS Barbers Point have been discovered, and response actions for these releases pursuant to 40 CFR 280 Subpart F are still ongoing. We are continuing to work with the Navy to resolve these outstanding issues.

Although none were specifically mentioned in the draft EIS, it is possible that in the future USTs may be installed in the project area for storage of motor fuel, used motor oil, emergency generator fuel, etc. All potential users of the NAS Barbers Point should note that USTs are subject to federal and

Mr. Fred Minato
November 9, 1998
Page 5

97-076A/epo

state requirements. Owners of newly installed USTs must notify our Underground Storage Tank Section of the existence of such USTs within 30 days of installation. In addition, our Underground Storage Tank Section is developing new state administrative rules on USTs which, when finalized, will require permits for all new USTs. Finally, permits must be obtained from the applicable building and fire safety authorities before installation of any USTs.

Should you have any questions regarding these comments, please contact Mr. Eric Sadoyama of our Underground Storage Tank Section of the Solid and Hazardous Waste Branch at 586-4226.

Sincerely,



BRUCE S. ANDERSON, Ph.D.
Deputy Director for
Environmental Health

c: NR&IAQB
OSWM
SHWB
SDWB



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 23T/ 4522

21 DEC 1998

Dr. Bruce Anderson, Director
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, HI 96801

Dear Dr. Anderson:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of November 9, 1998, regarding the subject document. While the public comment period closed on October 12, 1998, we are incorporating pertinent information from your review into the Final EIS. Your comments are addressed as follow:

NOISE

Comment: Title 11, Chapter 43 is quoted in the draft environmental impact statement, however, the Department of Health (DOH) has since adopted new rules. The applicant should review and ensure that any redevelopment activities comply with the provisions of the new Chapter 11-46, Hawaii Administrative Rules, "Community Noise Control."

Response: Section 4.1.3.3 has been revised to cite HAR Chapter 11-46. We note that the Navy will not be the applicant and that compliance with provisions of HAR Chapter 11-46 will be the responsibility of the Barbers Point Naval Air Station Redevelopment Commission and subsequent landowners, developers, and tenants.

SOLID WASTE

Comment: In Section 3.7.6, entitled "Solid Waste," the discussion of the existing solid waste management activities and facilities *fails to address the ongoing activities within the Barbers Point Waste Management Area (BPWMA)*.... While it is proposed that this area would remain under Federal control, there is no discussion relating to the need for proper closure of the existing landfill or the impact of these ongoing activities on the proposed surrounding uses.

Response: Because the BPWMA is on Navy-retained land, it is not the subject of in-depth analysis in the EIS. However, we have revised section 5.6.1.3 of the document to address land use compatibility issues. This section has been retitled "NAS Barbers Point Master Plan," and it discusses the compatibility of the reuse alternatives with land uses in areas retained by the Navy

and other federal agencies, as described in the *NAS Barbers Point Master Plan* (Pacific Division, Naval Facilities Engineering Command, August 1991). Given the proposed aviation activities and continued use of Barbers Point for military family housing, noise is one issue addressed in the revised section 5.6.1.3. The BPWMA is discussed as follows: *No significant land use incompatibilities between the proposed land uses in the reuse areas, the Navy-retained areas (and excess areas), and communities adjacent to NAS Barbers Point were identified in any of the evaluations of specific resources in this Final EIS. With proper planning and an understanding of the existing operations within the retained areas (e.g., biosolids co-composting facility), development in the reuse areas can be accomplished so that specific operations within land use types are compatible.*

Comment: In Section 4.7.6, entitled "Solid Waste," the discussion of impacts of the proposed action on the island-wide solid waste management infrastructure does not address the State and Federal goals for waste reduction, nor the internal Department of Defense (DOD) policy relating to recycling.

Response: National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations require that EISs be analytical rather than encyclopedic. Hence, the focus is on specific issues, and certain topics that may be important in an overall context, such as government goals and policies, may not be included in the document. In the case of Barbers Point, federal goals for waste reduction and DOD policy relating to recycling will not apply to redevelopment activities carried out by the Barbers Point Naval Air Station Redevelopment Commission and subsequent landowners, developers, and tenants.

Comment: The decommissioning of the Naval air station will result in the demolition of numerous structures, and a corresponding generation of considerable construction demolition waste. *The Final EIS should address the need for the dismantling of older structures and a requirement that any demolition activity require the development of a waste management and diversion plan.*

Response: The EIS provides quantitative estimates of clearing and grubbing and demolition wastes under each reuse alternative (see the table in section 4.7.6). The development of a waste management and diversion plan, if required, should be contingent on the redevelopment activities as carried out by the Barbers Point Naval Air Station Redevelopment Commission and subsequent landowners, developers, and tenants.

Comment: In addition, while the additional municipal solid waste and construction demolition waste generated by the proposed activities may not be considered significant based on the degree of increase in generation, both the State and Federal goals relating to waste generation is to

decrease disposal through the implementation of diversion options. The Final EIS should address strategies to *reduce* waste disposal from the proposed activities by a minimum of 25 percent.

Response: Reduction of solid waste is discussed in the last three paragraphs of section 4.7.6.2. These paragraphs are being moved from the "Impacts" to the "Mitigation" section. The first sentence has been rewritten to read: "Recycling could be undertaken with the site development wastes to reduce the ultimate volume requiring landfilling." The text goes on to state that with processing and screening, about half of the clearing and grubbing wastes could be reused as topsoil, and most of the demolition waste (Portland cement and asphalt cement debris from buildings and pavements) could be reused in new construction either onsite or elsewhere.

Under "Mitigation" in section 4.7.6.2, the following sentence has been deleted: "Hence, no mitigation is required."

DRINKING WATER

Comment: The Draft EIS does not address the estimated cost to install a new potable water system infrastructure, which apparently is needed to have the Board of Water Supply assume ownership of the Navy's water system.

Response: The cost of constructing a new potable water system to serve the redevelopment is beyond the scope of the EIS. It is not an environmental issue but an operational issue to be resolved separately. Neither NEPA nor CEQ regulations requires disclosure of such costs.

Comment: If a non-potable water system is installed, precautions must be taken to prevent children, families and workers using the reuse area from inadvertently ingesting the non-potable water. Non-potable water spigots must be clearly posted with warning signs to prevent the consumption of water. Adequate measures must also be taken to prevent cross connection and backflow conditions between the potable and non-potable water systems.

Response: This is an operational issue beyond the scope of the EIS and the Navy's purview. This concern would be more appropriately addressed by the Barbers Point Naval Air Station Redevelopment Commission and subsequent landowners and developers during implementation. A copy of your letter is being forwarded to Mr. William M. Bass, Executive Director of the Barbers Point Naval Air Station Redevelopment Commission.

UNDERGROUND INJECTION CONTROL (UIC)

Comment: According to UIC records, 251 drainage drywells exist at the NAS Barbers Point. Section 3.7.4 of the Draft EIS states that there are 270 drainage drywells in service at the facility. The correct number of drywells needs resolution.

Response: We have confirmed that there are 254 drywells in service. Section 3.7.4, Existing NAS Barbers Point Drainage System, has been revised accordingly. The citation in this section has also been revised to read "40 C.F.R. §147" instead of "40 C.F.R. §17."

Comment: Statements made in Sections 4.7.4.2, Mitigation, and 5.6.2 regarding new parcel owners need to transfer or obtain the UIC permit from the Navy is misleading. The UIC permits issued to the Navy are nontransferable. The proper terms to use in describing the action are revoke, modify and/or reissue, not transfer. Also, UIC permits are obtained from the DOH, not the Navy.

Response: Section 4.7.4.2 has been corrected to state that "new parcel owners would have to obtain the UIC permit from DOH." The same paragraph correctly states the need for modification of the permit with a new parcel owner. In addition, Section 5.6.2, Safe Drinking Water Act, has been corrected to state that "new owners would need to obtain the UIC permits from DOH."

SOLID AND HAZARDOUS WASTE

Comment: Our records indicate that many underground storage tanks (UST) at NAS Barbers Point have not yet been properly closed in accordance with federal regulations. In addition, several petroleum releases from UST at NAS Barbers Point have been discovered, and response actions are still ongoing. We are continuing to work with the Navy to resolve these outstanding issues.

Response: We acknowledge your comments and will continue to work with your department in resolving these issues.

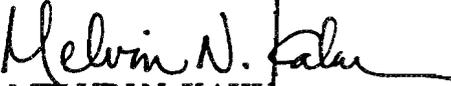
Comment: Although none were specifically mentioned in the draft EIS, it is possible that in the future UST may be installed in the project area. All potential users of NAS Barbers Point should note that UST are subject to federal and state requirements. In addition, our UST section is developing new state administrative rules which, when finalized, will require permits for all new UST. Finally, permits must be obtained from the applicable building and fire safety authorities before installation of any UST.

Response: The future installation of UST is an operational issue outside the scope of the EIS. By copy of your comment letter, the Barbers Point Naval Air Station Redevelopment Commission will be informed of the applicable regulatory requirements.

5090P.1F10C
Ser 2317 4522

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Mr. William M. Bass, Executive Director
Barbers Point Naval Air Station
Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

REF:SP:fb



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF STATE PARKS
P. O. BOX 621
HONOLULU, HAWAII 96809

OCT 13 1998

CHAIRPERSON
MICHAEL D. WILSON
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DEPUTY DIRECTOR
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HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Mr. Fred Minato
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 968960-7300

Dear Mr. Minato:

Subject: Draft Environmental Impact Statement for the Disposal
and Reuse of Naval Air Station, Barbers Point, Hawaii

Thank you for the opportunity to comment on subject Draft EIS. Comments provided by our Land Division, Engineering Branch is attached.

Comments from the Commission on Water Resources Management were sent in earlier. Further, there has been ongoing consultation with our State Historic Preservation Division and reuse commission staff on the proposed Heritage Park land transfer to our department.

Should there be any questions, please contact Ralston Nagata at 587-0292.

Aloha,


for MICHAEL D. WILSON
Chairperson



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2317 4519

21 DEC 1998

Mr. Michael D. Wilson
Chairperson
Department of Land and Natural Resources
Division of State Parks
P.O. Box 621
Honolulu, HI 96809

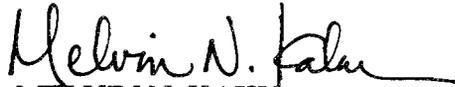
Dear Mr. Wilson:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE DISPOSAL
AND REUSE OF NAVAL AIR STATION, BARBERS POINT

Thank you for your letter of October 13, 1998, regarding the subject document. We received comments from the Commission on Water Resources Management and are aware of your department's discussions with the State Historic Preservation Division and reuse commission staff on the proposed Heritage Park land transfer.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

- ADMINISTRATOR
- ASST. ADMIN.
- DEV. BR.
- PLAN. BR.
- RES. MGT. BR.
- ENG. CONTROL
- ENV. REC. PLAN.
- SPECIAL STAFF
- ADMIN. ASST.
- GENERAL BR.
- FACILITATE/POST/STAFF RM
- INFO. SYSTEMS & REC.
- INSTANT REPLY
- INFO.
- FOLLOW UP
- FILE
- DATE (DUE _____)
- OFFICE
- SEND COPY TO: _____

DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Engineering Branch

SEP 22 1998
 11 33

September 22, 1998

TO: Ralston Nagata, Administrator
 Division of State Parks

FROM: Andrew Monden, Chief Engineer *Andrew Monden*

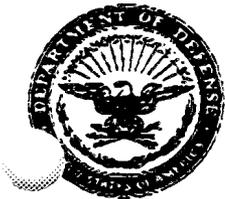
SUBJECT: DEIS for the Disposal and Reuse of Naval Air Station
 Barbers Point, Hawaii

In reference to your memorandum of September 9, 1998, requesting comments to the subject DEIS, we have the following comments:

1. Please have any State agency acquiring property coordinate any request for a water allocation with the Engineering Branch.
2. State agencies proposing to develop surplus Federal lands should determine what type of flood zone the land is located in. If the land is located in a flood plain, the land should be developed according to Section 7.10-4 Development Standards, Article 7 Special District Regulations of the City and County of Honolulu Land Use Ordinance, latest edition.

Thank you for the opportunity to review the DEIS. Should you have any questions, please contact Eric Yuasa of the Project Planning Section at extension 7-0229.

DI:ek



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/4529
21 Dec 1998

Mr. Andrew Monden, Chief Engineer
Department of Land and Natural Resources
Land Division, Engineering Branch
State of Hawaii
1151 Punchbowl Street
Honolulu, HI 96813

Dear Mr. Monden:

**Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE DISPOSAL
AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT**

A copy of your September 22, 1998, transmittal to Mr. Ralston Nagata, Administrator of the Division of State Parks, was directed to my attention. Your comments on the subject document are addressed below:

Comment: Please have any State agency acquiring property coordinate any request for a water allocation with the Engineering Branch.

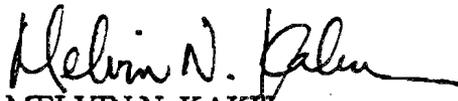
Response: Actions required for redevelopment of property at NAS Barbers Point, such as water allocations by state agencies, are outside of Navy's purview and need to be addressed with the Barbers Point Naval Air Station Redevelopment Commission. A copy of this letter is being forwarded to Mr. Bill Bass, Executive Director.

Comment: State agencies proposing to develop surplus Federal lands should determine what type of flood zone the land is located in. If the land is located in a flood plain, the land should be developed according to section 7.10-4 Development Standards, Article 7 Special District Regulations of the City and County of Honolulu Land Use Ordinance, latest edition.

Response: See response above.

Thank you for your review and comments on the subject document. Should you have any further questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

S090P.1F10C
Ser 231/4529

Copy to:

Mr. William M. Bass, Executive Director
Barbers Point Naval Air Station
Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BENJAMIN J. CAYETANO
GOVERNOR



KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

AIR-EP
98.0777

October 13, 1998

Mr. Melvin N. Kaku
Director
Environmental Planning Division
Department of the Navy
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Dear Mr. Kaku:

We have reviewed your draft Environmental Impact Statement (EIS) on the disposal and reuse of Naval Air Station, Barbers Point, Hawaii, dated August 1998.

We concur with your draft conclusion that no significant environmental impacts will result from the State preferred alternative.

The Department of Transportation remains firmly committed to Kalaeloa General Aviation Reliever Airport to complement Honolulu International Airport. We intend to begin operating that airport on July 2, 1999.

Enclosed is a copy of the Federal Aviation Administration approved Airport Layout Plan (ALP) for Kalaeloa Airport. Also enclosed are minor format and content comments. We appreciate your efforts and look forward to the land transfer.

Mr. Melvin N. Kaku
Page 2
October 13, 1998

AIR-EP
98.0777

Please have your staff contact Ben Schlapak, Head Planning Engineer, of the Airports Division at 838-8821 to clarify any questions you may have.

Very truly yours,



KAZU HAYASHIDA
Director of Transportation

Enclosures: ALP
Comments

During our review these are salient issues:

1. Section 3.1.2 Groundwater,
 - a. Paragraph 3, "Further assessment will be conducted in the vicinity of the storm water drainage ditch (POI-28) to determine whether dry wells I, the U.S. Coast Guard compound, and POI-28 are impacting groundwater." What is the completion schedule for this assessment and can we obtain a copy of the assessment?
 - b. Paragraph 4, "Groundwater beneath NASBP is contaminated with petroleum hydrocarbons, pesticides, PCB's, solvents, and metals (see Section 3.4)." Please verify our conclusion in the review of section 3.4, no remediation of the groundwater was taken or is planned.
2. Page 3-4, paragraph 1, "Groundwater does not appear to be a source of contaminants to the ocean; further groundwater assessments will be conducted in 1998 to address this concern." What is the completion schedule for this assessment and can we obtain a copy of the assessment?
3. Page 3-4, paragraph 4, please clarify the meaning of the phrase "agitene drums."
4. Page 3-4, recommend an exhibit delineating the various zones on the Flood Insurance Rate Map for this area.
5. Section 3.2.2 Terrestrial Fauna, please address the bird strikes with quantitative data showing date, number and species. Furthermore, document the history of a wildlife management plant, especially of shooting of birds.
6. Section 3.3.1, Archaeological Sites, please provide an exhibit which identifies location of the site numbers in Table 3.3-1.

7. Page 4-90, although "the potential to discharge off-site runoff from the Kaloi Gulch Drainage Basin through the Barbers Point area was presented in the Naval Air Station Barbers Point Community Redevelopment Plan," and "is included in the alternative assessment", we do not agree that it should be routed through Barbers Point Naval Air Station. In particular, we do not agree with the idea of 20' x 8' culverts under Runways 4L, 4R and Taxiway P with large ditches in between. These proposed structures violate the Federal Aviation Administration slope and obstruction criteria and violate the historic 1,000 foot wide Runway 4 path. The concept of relying on infiltration is a geologic area conducive to natural drainage disposal should be pursued.

**COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR
THE DISPOSAL AND REUSE OF
NAS BARBERS POINT**

Cover Memo - Third paragraph

"Mitigation of impacts relating to public safety are pending FAA approval and are currently unresolved." This should be updated.

ES-2 - Last paragraph

The 691-acre State-preferred alternative airport does not agree with the DOT estimate of 757 acres.

ES-7 - Second paragraph

The small airport alternative is 690 acres. Therefore 691 acres for the State-preferred alternative seems incorrect.

ES-10 - Sixth paragraph

FAA approval of the Airport Layout Plan should be updated.

ES-12 - Second paragraph

FAA approval of the Airport Layout Plan should be updated.

1-8 - Section 1.6.2

Newspapers

1-9 - Last paragraph

Add "by FAA in their September 19, 1997 response" on last line. List letter in References.

2-3 - Sixth paragraph

Revise "military and civilian air carriers" to "civilian air carriers and military".

Add "Assist in disaster relief and civil defense response in times of emergencies and natural disasters."

2-4 - Table 2.1-1

691 acres seems low for the State-preferred alternative.

2-6 - First paragraph

691 acres seems low for the State-preferred alternative.

Delete "and the aviation component of the C&C of Honolulu's Life Safety Academy".

Add "The Hawaii National Guard will assume control of an adjacent 150 acres"

Add "relocated" after HIA.

Should be 2020 not 2000 in first bullet item.

Add runway numbers in bulleted items.

2-9 - Third paragraph

Delete "an aviation training life safety academy".

2-18 - First paragraph

Add "The No Airport Alternative does not meet the purpose and needs of the LRA recommended plan."

3-11 - Figure 3.1-2 Existing Roadways

Coral Sea Road should be deleted west of the U.S. Coast Guard and Tripoli Road should be deleted west of Coral Sea Road. It is incorrect to show Coral Sea Road as an existing road west of the US. Coast Guard as noted on page 3-13. Coral Sea Road is restricted to use only by authorized vehicles as noted on page 3-14. Similarly, it is incorrect to show Tripoli Road west of Coral Sea Road as noted on page 3-14.

3-35 - Figure 3.4-2

The clear zones begin at the physical end of the runway for military criteria. The clear zones should be revised and the boundaries of the outer portions should coincide with the property lines northwest of Runway 11 and southwest of Runways 4R and 4L.

4-6 - Fourth paragraph

Delete "be".

4-13 - Figure 4.1-1

Add the Hawaii National Guard helipad on Taxiway P near end of Runway 22R as shown on Figures 4.1-2 and 4.1-3.

4-25 - Last paragraph

Add "on Runway 11".

4-28 - Air Transportation

Replace "goods and" with "passenger, cargo and mail"

4-52 - Fourth paragraph

Where would the 170 to 205 acres of offsite parking for raceway park events be located.

4-55 - Table 4.1-10

States 2,500 to 5,000 spaces at west end of crosswind runway and 2,000 to 3,000 spaces at east end of crosswind runway. How would this affect the availability and use of Runway 11-29, especially for U.S. Coast Guard search and rescue operations.

Insert "crosswind" in third item in Table 4.1-10.

4-68 - First paragraph

FAA approval of the ALP should be updated.

4-71 - Fifth paragraph

Insert "State-preferred alternative".

4-75 - Third paragraph

"General aviation airport" should be deleted. The airport facilities already exist and any improvements would be funded from Special Airport fund sources and would not be a large public project that could tie up capital funding for decades.

4-92 - Last paragraph

Revise "Runway 22L" to "Runways 22L and 22R".

8-1 - References

Should the reference to the Aries Consultants Ltd. February 1996 Kalaeloa Airport Master Plan be deleted.

DRAFT
ENVIRONMENTAL IMPACT STATEMENT FOR THE DISPOSAL AND REUSE
OF NAVAL AIR STATION BARBERS POINT, HAWAII

Lead Agency: U.S. Department of the Navy
Cooperating Agency: U.S. Department of Transportation, Federal Aviation Administration
Proposed Action: Disposal and Reuse of Naval Air Station Barbers Point
Comment Due Date: October 12, 1998

This Draft Environmental Impact Statement (DEIS) evaluates the potential environmental impacts of the proposed disposal and reuse of Naval Air Station Barbers Point (NASBP), Hawaii. It is being prepared pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §4332; Navy guidelines, OPNAVINST 5090.1B; and the 1990 Defense Base Closure and Realignment Act (DBCRA), 10 U.S.C. §2687 note, as amended by the 1993 Base Realignment and Closure (BRAC) process. The DEIS provides the information necessary for the Federal Aviation Administration (FAA) to prepare decision documents recommending terms and conditions for airport conveyance. It also provides the environmental review required to obtain FAA approval of the Airport Layout Plan (ALP) for airway and supporting facilities at NASBP.

This DEIS evaluates four reuse alternatives, each emphasizing various types of development, e.g., residential, light industrial, recreation, commercial. Three of the alternatives, including the plan approved by the Barbers Point Naval Air Station Redevelopment Commission and signed by the Governor, include a general aviation reliever airport. A fifth alternative, No Action, assumes the existing airport would not be used and, along with other surplus land (land not being retained by Navy or other federal agencies), would be retained by Navy in caretaker status. NASBP will close on July 2, 1999.

No significant environmental impacts, with the exception of infrequent (several times per year) and severe traffic conditions resulting from major events at special attractions (e.g., motor sports raceway complex), are anticipated from the proposed action. Most of the identified mitigation would be the responsibility of the entity taking ownership of or developing the surplus property. Appropriate treatment of significant cultural resources will be ensured by deed covenants as a result of Navy's consultation with the State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act. Implementation of these protective covenants reduces the impacts of disposal and reuse to a not significant level. Mitigation of impacts relating to public safety (with respect to airport design as reflected in the ALP) are pending FAA approval and are currently unresolved.

The DEIS is submitted for review pursuant to the following laws: Section 102(2)(c) of the National Environmental Policy Act of 1969, 42 U.S.C. §4332; and Section 509(b)(5) of the Airport and Airway Improvement Act of 1982, 49 U.S.C. §47101 et seq. Comments on the draft DEIS must be received by the addressee provided below no later than October 12, 1998.

For further information, please contact the following.

Mr. Fred Minato
Pacific Division, Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300
Telephone: (808) 471-9338; Fax (808) 474-5909

EXECUTIVE SUMMARY

- U.S. Fish and Wildlife Service (USFWS) (253.3 acres [102.6 hectares])
- U.S. Coast Guard (48.0 acres [19.4 hectares])

The remaining 2,100 acres (850 hectares) of base closure property have been declared surplus and are the focus of this EIS.

The proposed action is the disposal of surplus Navy properties for subsequent reuse and redevelopment. Property disposal and reuse will comply with the DBCRA of 1990, 10 U.S.C. §2687 note, as amended by the 1993 BRAC process; President Clinton's Five-Point Plan, "A Program to Revitalize Base Closure Communities" (July 2, 1993); the National Defense Authorization Act for Fiscal Year 1994, Pub. L. 103-160, Title XXIX, Subtitle A (1993); and Revitalizing Base Closure Communities and Community Assistance, 32 C.F.R. §174 and 175. Surplus property can be disposed of by various conveyance authorities and include public benefit conveyances. It is proposed that a portion of the surplus property be conveyed under the Hawaiian Home Lands Recovery Act of 1995, 48 U.S.C. §691-716, to settle long-standing land claims against the federal government.

In accordance with DBCRA of 1990, 10 U.S.C. §2687 note, the LRA—the Barbers Point Naval Air Station Redevelopment Commission—was established to prepare a local redevelopment plan that considers the reuse potential of existing facilities or systems, the needs of the community, alternative redevelopment scenarios, and development priorities. Findings of the LRA are documented in the *Naval Air Station Barbers Point, Community Redevelopment Plan* (Helber, Hastert & Fee, Planners, March 1997) and *Naval Air Station Barbers Point, Community Redevelopment Plan, Amendment 1* (Helber, Hastert & Fee, Planners, December 1997). These documents contain the redevelopment plan approved by the LRA and the Governor, herein referred to as the State-preferred alternative, and three other alternatives that are described and evaluated in this DEIS.

The State-preferred alternative and other reuse alternatives are shown in Figures ES-1 through ES-4. These maps show the proposed land uses for the surplus property to be disposed; areas to be retained by Navy and other federal agencies are also indicated. New roadways shown for the various alternatives are conceptual, and alignments would be changed as required. (For example, if the Small Airport alternative is implemented, the roadway through the FAA parcel would have to be realigned.) In the descriptions given below, the sizes of the designated land use areas are only approximate, based on the LRA's plan.

→ **State-preferred Alternative (Navy-preferred Alternative).** The State-preferred plan consists of a 691-acre (279.6-hectare) general aviation reliever airport for Honolulu International Airport (HIA), with two parallel runways and a crosswind runway. Large areas (totaling approximately 681 acres [275.6 hectares]) are planned for park and recreational uses. Approximately 498 acres (201.5 hectares) are planned for commercial/private recreation and light industrial uses; and 165 acres (66.7 hectares) for residential use, including 13 acres (5.3 hectares) designated for homeless providers. Remaining lands are for public facilities, roads, open space, and utilities. One aspect of the State-preferred plan that has been modified in order to comply with FAA design criteria is that a segment of Coral Sea Road to the southwest of Runway 4R will remain closed to the public. This alternative is also Navy's preferred alternative.

Large Airport Alternative. This alternative consists of a 950-acre (384.5-hectare) general aviation reliever airport with two parallel runways and a crosswind runway. Light industrial and commercial uses would occupy approximately 500 acres (202.3 hectares). Park and recreation activities are planned over 390 acres (157.8 hectares). Residential uses would occupy 220 acres (89.0 hectares) and include 13 acres (5.3 hectares) for homeless providers.

Small Airport Alternative. This alternative includes an airport, two parallel runways, and no crosswind runway. Approximately 690 acres (279.2 hectares) are planned for airport use. Park and recreation uses occupy the largest area (approximately 740 acres [295.5 hectares]) in this plan, followed by 470 acres (190.2 hectares) for light industrial/private recreation/commercial uses, and 160 acres (64.7 hectares) for residential use (including 13 acres [5.3 hectares] for homeless providers).

No Airport Alternative. This alternative eliminates any reuse of the existing airport. South of the existing airport is an area (approximately 90 acres [36.4 hectares]) designated as "airport" over the existing U.S. Coast Guard facility. This area would be limited to helicopters for the Hawaii Army National Guard. The No Airport alternative focuses on the development of community- and tourist-related recreational activities. Approximately 960 acres (388.5 hectares) are designated for parks and recreation, 690 acres (279.2 hectares) for commercial/private recreational/light industrial uses, and 190 acres (76.8 hectares) for housing (including 13 acres [5.3 hectares] for homeless provider use). Remaining lands are for public facilities, roads, open space, and utilities.

No Action. In the No Action alternative, Navy would retain ownership of the surplus property in caretaker status, and there would be no reuse of surplus property.

Summary of Impacts and Mitigation

Potentially significant issues and impacts were identified in the scoping process and are evaluated in Chapter Four. Significant impacts were determined by considering the following: absolute change from existing conditions (baseline conditions that generally reflect the NASBP activity levels in 1993, just prior to the base closure decision), duration of change, extent (geographical or population affected) of change, and the relationship between the change and compliance with applicable federal, state, or local rules, ordinances, policies, or plans. With the mitigation measures identified in Chapter Four, no significant impacts are expected under all reuse alternatives, except for traffic. Traffic impacts associated with major events held possibly several times per year at special attractions, e.g., the motor sports raceway complex, cannot be entirely mitigated. Findings from these evaluations are summarized below.

Geology, Topography, and Soils. No significant impacts on soil stability would result from planned construction, as engineering designs would account for site soil conditions in all reuse alternatives. Moreover, NASBP is not susceptible to erosion since soils are shallow and highly permeable, and the topography is relatively level.

Groundwater. No significant impacts on groundwater are expected in any of the reuse alternatives. Groundwater beneath NASBP is brackish and not suitable for consumption or for irrigation without desalinization. Potential effects from airport or light industrial activities on groundwater would not be significant as long as operational controls such as providing adequate containment for chemical or fuel storage areas and designating well-contained areas for maintenance activities are utilized.

EXECUTIVE SUMMARY

least under the State-preferred, Small Airport, and No Airport alternatives; potential impacts would be greatest for the Large Airport alternative. Navy is seeking concurrence with the State Historic Preservation Officer (SHPO) pursuant to Section 106 of NHPA for a "no adverse effect" determination for the disposal of surplus lands with significant cultural resources by including deed covenants. Deed covenants will ensure appropriate treatment of these resources affected by proposed reuse; hence, no significant impacts on cultural resources would occur with disposal and reuse.

Public Health and Safety. No significant impacts on public health and safety would be expected in all alternatives. Existing areas of contamination, hazardous air pollutants from the reuse alternatives and neighboring Campbell Industrial Park (CIP), and the airport were considered.

No significant impacts from existing areas of contamination would occur because existing areas of contamination and points of interest (POIs) must be identified and remediated to levels protective of human health and the environment (or have a proven, effective remediation underway). Deed restrictions will address the level of cleanup performed (if required) to ensure that future development of these areas remain protective of human health and the environment.

Significant impact from CIP operations to proposed residential areas in the western portion of NASBP is highly unlikely. While this DEIS concludes that CIP would not present a significant risk of Impact on proposed residential developments at NASBP, given the periodic complaints from residents in nearby communities and the potential risk of impact, Department of Health (DOH) encourages a conservative buffer between CIP and residential communities. Residential land uses in this section of NASBP are proposed in the State-preferred, Large Airport, and Small Airport alternatives. DOH's position is that the proposed housing area in the northwestern section of NASBP is an inappropriate land use for this area (DOH, December 20, 1996). The decision to develop residential units is left up to the discretion of the LRA and Department of Hawaiian Home Lands (DHHL).

No significant impacts on neighboring and proposed land uses at NASBP are expected with the required environmental permits and approvals, such as those required under RCRA, 42 U.S.C. §6901 et seq. The potential emissions of hazardous air pollutants and materials use associated with each of the reuse plans were evaluated by assuming that emissions and use would be greatest in areas designated for industrial/commercial use. Therefore, the potential for hazardous materials emissions and use decrease in the following order (from greatest to least): the Large Airport alternative, the Small Airport alternative, and the State-preferred alternative.

No significant impacts from airport operations would be expected because the State DOT Airports Division's Airport Layout Plan (ALP) would have to conform with FAA design criteria that are used to ensure that adequate safety measures are incorporated with the proposed airport use. FAA design criteria ensure that adequate safety measures are incorporated with the proposed airport use to protect people and property on the ground. FAA has only approved the ALP from an airspace utilization standpoint. However, FAA still needs to evaluate the physical and environmental impacts before final approval of the ALP can be granted.

Executive Order 13045 (Protection of Children from Environmental Health Risks and Safety Risks). The analyses in this DEIS reveal that reuse of NASBP would not create environmental health risks and safety risks that may disproportionately affect children. In the highly unlikely event that a worst-case scenario could occur from operations at nearby CIP, there could be a disproportionate

EXECUTIVE SUMMARY

Significant increases in electrical demands would occur with reuse. The greatest demand would occur from the Large Airport alternative, followed by the Small Airport alternative, No Airport alternative, and finally, the State-preferred alternative. These impacts can be mitigated by coordinating with Hawaiian Electric Company, the island-wide power provider.

Unresolved Issues

Airport Layout Plan (ALP). To accommodate the FAA design criteria associated with the State-preferred alternative, additional land acquisition, avigation easements, and continued closure of Coral Sea Road (southwest of Runway 4R) to the public may be required. FAA approval of the State DOT Airport Division's ALP is required for airport use.

Regional Drainage. Although a preliminary regional drainage plan was prepared as part of the State-preferred alternative, further studies on regional drainage will be required. These studies should incorporate input from Navy and all affected parties.

Homeless Providers. With the exception of No Action, all reuse alternatives accommodate homeless providers in accordance with the Base Closure Community Redevelopment and Homeless Assistance Act of 1994. Under No Action, the property would be under caretaker status with no homeless facilities. The Hawaii Housing Authority (HHA), delegated by the Office of Planning¹ (the lead agency for the Redevelopment Commission), prepared a conceptual land use design for the Homeless Assistance Submission in accordance with the U.S. Department of Housing and Urban Development's (HUD's) homeless program requirements. HHA requested 13 acres (5.3 hectares) of land in the central ("downtown") area. The homeless provider issue is identified as unresolved because official approval from HUD has not yet been obtained, but it is anticipated.

¹ Previously the Office of State Planning.

measures should be implemented as part of development criteria to control and reduce discharge of pollutants. Requirements of Ordinance 96-34 regarding increases in runoff from new developments, including ownership, operations, and maintenance of retention/detention basins should be addressed, and the necessary permits required by C&C of Honolulu Department of Public Works (DPW) should be identified. (Comments addressed in Sections 4.1.2 and 4.1.3 of the DEIS. Requirements of Ordinance 96-34 and specific permits are operational issues that will be addressed by the LRA in the development phase.)

- The DEIS should include a discussion of any former government or Crown Lands (ceded lands) which may be located within the 2,100-acre area to be redeveloped. The DEIS should address whether the proposed action on these ceded lands is appropriate under the 5(f) provisions of the Admissions Act. (There are no ceded lands at Barbers Point. See Section 1.8.3.)
- The DEIS should include all archaeological, cultural, floral, and faunal information known about the area. (Comments addressed in Sections 3.2 and 3.3 of the DEIS.)
- The DEIS should address why Barbers Point will not be used for a veterans' home. (See Section 2.7.)

1.6.2 EIS Public Review Process

In accordance with NEPA and implementing CEQ regulations, a minimum 45-day public review period for the DEIS is required. This period is initiated by the publication of a Notice of Availability (NOA) of the DEIS in the *Federal Register* and the local daily newspaper. Comments will be addressed and incorporated into the Final EIS (FEIS). An NOA of the FEIS will be published in the *Federal Register* and the newspaper which initiates a 30-day public review period. The ROD marks the completion of the NEPA process.

1.7 SUMMARY OF POTENTIAL ISSUES, CONCERNS, AND IMPACTS

As a result of the scoping process, the following potential impacts were identified and will be discussed in detail in the DEIS:

Physical Environment

- Surface water—potential for contamination.
- Air—potential for air quality degradation.
- Noise—land use compatibility.
- Transportation—potential for traffic degradation.

Biological Resources

- Threatened and endangered species—risks to preservation and protection.
- Sensitive habitats—risks to preservation and protection.



U.S. Department
of Transportation

Federal Aviation
Administration

Western-Pacific Region
Airports District Office

300 Ala Moana Blvd., Room 7-128
Honolulu, Hawaii 96813
MAIL: Box 50244
Honolulu, Hawaii 96850-0001
Phone: (808) 541-1232
FAX: (808) 541-3462

October 2, 1998

Mr. Jerry M. Matsuda
Airports Administrator
DOT, State of Hawaii
400 Rodgers Blvd., Suite 700
Honolulu, Hawaii 96819-1880

Dear Mr. Matsuda:

We received ten copies of the updated Airport Layout Plan (ALP) for Kalaeloa Airport, formerly Naval Air Station Barbers Point (NAX), on August 25, 1998. The plan satisfactorily reflects existing and known future development and is hereby approved subject to the following conditions:

The ALP depicts the existing roadways in the Runway Safety Area (RSA) for Runway 4R remaining and could be used as airport service roads. The RSA is defined as the surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. The area is to remain free of objects, except for objects that are required to be located within the RSA because of their aeronautical function.

Based upon the above definition of a RSA, the depiction and potential use of the roadways as "Airport Service Roads" located within the RSA is acceptable subject to the following use restrictions:

- a. Airport tenant vehicles and fueling vehicles must be prohibited from using the service road.
- b. The service road should only be used for daily airfield inspections by airport management.
- c. The service road may also be used for maintenance and inspection of the Runway 4R Approach Lighting System.
- d. All airfield employees operating vehicles on the service road within the RSA must be adequately trained to assure that no pending aircraft operations will occur on Runway 4R/22L before traversing the RSA.
- e. Appropriate signs are installed, along the service road where it intersects the Runway Protection Zone, stating use prohibitions and cautioning airport employees to use the appropriate clearance procedure before proceeding across the RSA.
- f. All RSA crossings are coordinated with Air Traffic Control Tower (ATCT) personnel during hours of ATCT operation.
- g. The airport service road must not be converted to tenant or public use.

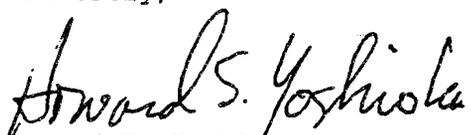
The approval indicated by my signature is given subject to the condition that the proposed airport development identified by item herein as requiring environmental processing shall not be undertaken without prior written environmental approval by the Federal Aviation Administration:

Application for public benefit conveyance of airport property from Department of the Navy.

Approval of this plan does not constitute a commitment by the FAA to provide financial assistance to implement the proposed development nor include an evaluation of actual construction or alteration which requires notice under Federal Aviation Regulations Parts 77 and 157. Inclusion of the project development on the ALP signifies a concurrence with current standards for safety, utility, and efficiency. Actual facility development will be governed by design standards applicable at the time the development is undertaken.

One copy of the approved ALP is enclosed for your files.

Sincerely,



Howard S. Yoshioka
Manager, Airports District Office

Enclosure

cc: Stan Uehara w/ALP



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4527
91 DEC 1998

Mr. Kazu Hayashida
Director of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, HI 96813-5097

Dear Mr. Hayashida:

**Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT**

Thank you for your letter of October 13, 1998, regarding the subject document. In response to your questions and comments, the following explanations are provided:

Comment: Section 3.1.2 Groundwater, paragraph 3, "Further assessment will be conducted in the vicinity of the storm water drainage ditch (POI-28) to determine whether dry wells in the U.S. Coast Guard (USCG) compound, and POI-28 are impacting groundwater." What is the completion schedule for this assessment and can we obtain a copy of the assessment?

Response: Assessments are being finalized. The findings indicate that dry well and ditch sediment are not contaminating groundwater and that no significant human health risks are posed under industrial scenario exposures assumptions. Ditch sediments that exceed hazardous waste levels are being removed between July 1998 and March 1999. We will forward a copy of the assessment to you when it is completed in December 1998. Please contact Ms. Anne Okamura, the Navy's Base Realignment and Closure (BRAC) Environmental Coordinator at 474-5936 for additional information.

Comment: Section 3.1.2 Groundwater, paragraph 4, "Groundwater beneath NAS Barbers Point is contaminated with petroleum hydrocarbons, pesticides, PCBs, solvents, and metals (see Section 3.4)." Please verify our conclusion in the review of Section 3.4, no remediation of the groundwater was taken or is planned.

Response: Section 3.1.2 describes groundwater conditions. It will be revised to correct errors and misleading information. Specifically, the last sentence in Section 3.1.2 will be deleted because it is erroneous. Groundwater has been monitored for petroleum hydrocarbons, pesticides, PCBs, solvents, and metals, but none of these constituents were detected at concentrations of concern, e.g., above background levels or at levels that trigger remediation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Annual groundwater monitoring will continue until property transfer to identify any problems that may arise and to ensure that the groundwater constituents remain below concentrations of concern when the property is transferred.

Comment: Page 3-4, paragraph 1, "Groundwater does not appear to be a source of contaminants to the ocean; further groundwater assessments will be conducted in 1998 to address this concern." What is the completion schedule for this assessment and can we obtain a copy of the assessment?

Response: Groundwater monitoring results from the most downgradient wells were compared to the State of Hawaii Department of Health's Water Quality Standards for Saltwater (HDOH Hawaii Administrative Rules Title 11, Chapter 54) to assess the potential impacts of groundwater on ocean water. Findings indicate that copper was detected at approximately three times the water quality standard of 2.9 ug/L for chronic exposure. Groundwater quality is not expected to have an adverse effect on the ocean environment because the concentrations of copper are not much higher than the standards, and some dilution is expected when groundwater reaches the ocean. Other than ongoing groundwater monitoring until the property is transferred from the Navy, no further action is required from the Navy. We will forward a copy of the assessment to you when it is completed in December 1998. Please contact Ms. Anne Okamura, the Navy's BRAC Environmental Coordinator at 474-5936 for additional information.

Comment: Page 3-4, paragraph 4, please clarify the meaning of "agitene drums." This clarification will be made in Section 3.1.3 of the Final EIS.

Response: Agitene drums are drums that were used to contain agitene, which is a solvent.

Comment: Page 3-4, recommend an exhibit delineating the various zones on the Flood Insurance Rate Map (FIRM) for this area.

Response: A new figure will be added to reflect the various zones described in Section 3.1.3 and defined in the FIRM.

Comment: Section 3.2.2. Terrestrial Fauna, please address the bird strikes with quantitative data showing date, number and species. Furthermore, document the history of a wildlife management plan, especially of shooting of birds.

Response: Quantitative data regarding bird air strikes and other information concerning wildlife management plans will not be included in this EIS, as such level of detail is not required. Information concerning bird air strikes, as discussed between Mr. Randy Hoffman, Base Conversion Manager with your airport staff, Mr. Ben Schlapak, will be sent under separate cover.

Comment: Section 3.3.1. Archaeological Sites, please provide an exhibit which identifies location of the site numbers in Table 3.3-1.

Response: The Archaeological Resources Protection Act implementing regulations, 32 C.F.R. Part 229, requires federal agencies to keep information about the location of archaeological sites

confidential from the public. For this reason, the location of the sites we identify are not provided in the EIS. However, information about the locations of archaeological sites on the parcels to be transferred will be included as part of the deed conveyance. This information has already been provided to the potential recipients of excess and surplus properties.

Comment: Page 4-90, although "the potential to discharge off-site runoff from the Kaloi Gulch Drainage Basin through the Barbers Point area was presented in the NAS Barbers Point Community Redevelopment Plan," and "is included in the alternative assessment," we do not agree that it should be routed through Barbers Point Naval Air Station. In particular, we do not agree with the idea of 20' x 8' culverts under Runways 4L, 4R and Taxiway P with large ditches in between. These proposed structures violate the Federal Aviation Administration (FAA) slope and obstruction criteria and violate the historic 1,000-foot wide Runway 4 path. The concept of relying on infiltration in a geologic area conducive to natural drainage disposal should be pursued.

Response: The EIS presents possible conceptual drainage plans and emphasizes that the regional drainage issue is an unresolved issue. Your comments should be addressed with the local redevelopment authority, the Barbers Point Naval Air Station Redevelopment Commission.

Regarding your attached three pages of Comments on the Draft EIS for the Disposal and Reuse of NAS Barbers Point, the following explanations are provided:

Comment: Cover Memo – Third paragraph. "Mitigation of impacts relating to public safety are pending FAA approval and are currently unresolved." This should be updated.

Response: Because the Airport Layout Plan (ALP) was recently conditionally approved by the FAA on October 2, 1998, this sentence will be deleted.

Comment: ES-2 – Last paragraph. The 691-acre State-preferred alternative airport does not agree with the DOT estimate of 757 acres.

Response: All acreages are approximate. The Final EIS will be updated to include Navy's estimate of 709 acres for the airport area; no changes in acreages for the other alternatives in the EIS will be made. Property conveyance procedures will require surveys that will yield the correct acreages.

Comment: ES-7 – Second paragraph. The small airport alternative is 690 acres. Therefore 691 acres for the State-preferred alternative seems incorrect.

Response: The "Large Airport" and "Small Airport" alternatives refer not to the surface areas, but to the size and number of the runways. The descriptions are based on the relative potential use of the runways. No changes to acreages will be made for EIS purposes.

Comment: ES-10 – Sixth Paragraph. FAA approval of the ALP should be updated.

Response: The last two sentences on paragraph six, on page ES-10 will be deleted and replaced with text to indicate that the ALP was conditionally approved by FAA on October 2, 1998.

Comment: ES-12 – Second Paragraph. FAA approval of the ALP should be updated.

Response: The paragraph addressing the ALP as an unresolved issue on page ES-12 will be deleted.

Comment: 1-8 – Section 1.6.2. Newspapers.

Response: Comment will be incorporated into the Final EIS.

Comment: 1-9 – Last paragraph. Add “by FAA in their September 19, 1997, response” on last line. List letter in References.

Response: Change will be made to read, “Because most of these waivers and modifications were not approved by FAA in their September 19, 1997, response letter, the ALP was revised on February 26, 1998, and . . .” Full reference of letter is not needed in the EIS and will not be included.

Comment: 2-3 – Sixth paragraph. Revise “military and civilian air carriers” to “civilian air carriers and military.” Add “Assist in disaster relief and civil defense response in times of emergencies and natural disasters.”

Response: Your suggested changes will be incorporated into the Final EIS.

Comment: 2-4 – Table 2.1-1. 691 acres seems low for the State-preferred alternative.

Response: As previously mentioned, acreages will not be changed for the Final EIS. Surveys will be conducted to obtain acreages needed for property conveyance and will be handled outside of the EIS documentation process.

Comments: 2-6 – First Paragraph

Comment a: 691 acres seems low for the State-preferred alternative.

Response: All acreages are approximate. The Final EIS will be updated to include Navy’s estimate of 709 acres for the airport area; no changes in acreages for the other alternatives in the EIS will be made. Property conveyance procedures will require surveys that will yield the correct acreages.

Comment b: Delete “and the aviation component of the C&C of Honolulu’s Life Safety Academy.”

Response: To reflect the current reuse plan, the phrase “and the aviation component of the C&C of Honolulu’s Life Safety Academy” will be deleted.

Comment c: Add “The Hawaii National Guard will assume control of an adjacent 150 acres.”

Response: Text to this effect will be added.

Comment d: Add “relocated” after HIA.

Response: Because the FAA navigational aid will not be relocated, the entire sentence will be deleted.

Comment e: Should be 2020 not 2000 in the first bullet item.

Response: Per your suggestion, the reference to year 2000 will be changed to 2020.

Comment f: Add runway numbers in bulleted items.

Response: Runway numbers will be added.

Comment: 2-9 – Third paragraph. Delete “an aviation training life safety academy.”

Response: Section 2.2 will be updated to reflect the official changes approved by the LRA. Such changes are expected to result in the following. The phrase, “and the aviation component of the C&C of Honolulu’s Life Safety Academy” will be deleted. The location of the FAA navigational aid will be changed to indicate that it will not be relocated or the entire sentence will be deleted.

Comment: 2-18 – First paragraph. Add “The No Airport Alternative does not meet the purpose and needs of the LRA recommended plan.”

Response: This EIS is not intended to address the purpose and need of the LRA’s plan. No change to the Final EIS will be made.

Comment: 3-11 – Figure 3.1-2 Existing Roadways. Coral Sea Road should be deleted west of the USCG and Tripoli Road should be deleted west of Coral Sea Road. It is incorrect to show Coral Sea Road as an existing road west of the USCG as noted on page 3-13. Coral Sea Road is restricted to use only by authorized vehicles as noted on page 3-14. Similarly, it is incorrect to show Tripoli Road west of Coral Sea Road as noted on page 3-14.

Response: Your changes will be incorporated into the Final EIS.

Comment: 3-35 – Figure 3.4-2. The clear zones begin at the physical end of the runway for military criteria. The clear zones should be revised and the boundaries of the outer portions should coincide with the property lines northwest of Runway 11 and southwest of Runways 4R and 4L.

Response: Clear zones will be corrected.

Comment: 4-6 – Fourth paragraph. Delete “be”.

Response: Change will be incorporated.

Comment: 4-13 – Figure 4.1-1. Add the Hawaii National Guard helipad on Taxiway P near end of Runway 22R as shown on Figures 4.1-2 and 4.1-3.

Response: Change will be incorporated.

Comment: 4-25 – Last paragraph. Add “on Runway 11”

Response: Change will be incorporated.

Comment: 4-28 – Air Transportation. Replace “goods and” with “passenger, cargo and mail”

Response: We plan to use “goods, services, and passengers.”

Comment: 4-52 – Fourth paragraph. Where would the 170 to 205 acres of offsite parking for raceway events be located?

Response: Possible parking areas are identified in Table 4.1-10, and include unspecified number of parking spaces on vacant lands or parking areas along Kalaeloa Corridor west of NAS Barbers Point, as denoted in Section 4.7.1.2.3 of the Draft EIS.

Comment a: 4-55 – Table 4.1-10. States 2,500 to 5,000 spaces at west end of crosswind runway and 2,000 to 3,000 spaces at east end of crosswind runway. How would this affect the availability and use of Runway 11-29, especially for USCG search and rescue operations?

Response: The closure of Runway 11 to allow parking for major events at special attractions would prevent the USCG from using the crosswind runway. While the likelihood of holding a major event (several times per year) when a search and rescue operation is required during infrequent non-trade wind conditions is low, this possibility must be addressed when specific developments such as the motorsports raceway complex are proposed. Evaluations should be conducted in the environmental review process as required by H.R.S. Chapter 343. This information will be added to Section 4.1.7.2.3, Roads and Traffic (potential impacts and mitigation of). The LRA will need to address this and other operational issues that will require coordination between various tenants/users.

Comment b: Insert crosswind in third item in table 4.1-10.

Response: “Crosswind” will be added as requested.

Comment: 4-68 – First paragraph. FAA approval of the ALP should be updated.

Response: This section will be updated to reflect the recent conditional approval of the ALP granted by the FAA.

Comment: 4-71– Fifth paragraph. Insert “State-preferred alternative”

Response: “State-preferred alternative” will be added.

Comment: 4-75 – Third paragraph. “General aviation airport” should be deleted. The airport facilities already exist and any improvements would be funded from Special Airport fund sources and would not be a large public project that could tie up capital funding for decades.

Response: The statement that “Major land uses such as a general aviation airport...would provide little continuing income” should remain in the document, as this statement is relative to other land uses. It has nothing to do with whether the general aviation airport is existing or not. The third sentence in the paragraph will be changed to read, “In light of current government budget constraints, some of these large public projects could tie up capital improvement funding for decades.”

Comment: 4-92 - Last paragraph. Revise “Runway 22L” to “Runways 22L and 22R.”

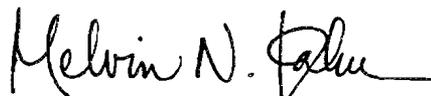
Response: Change will be made.

Comment: 8-1- References. Should the reference to the Aries Consultants Ltd. February 1996 Kalaeola Airport Master Plan be deleted?

Response: Document will be checked. If the February 1996 Kalaeola Airport Master Plan is not referenced, it will be deleted from Chapter Eight.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,



MELVIN N. KAKU

Director

Environmental Planning Division

Copy to: (See next page)

5090P.1F10C
Ser 2317 4527

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BENJAMIN J. CAYETANO
GOVERNOR



KAZU HAYASHIDA
DIRECTOR
DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

STP 8.8870

October 16, 1998

Mr. Melvin N. Kaku
Director
Environmental Planning Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Dear Mr. Kaku:

Subject: Disposal and Reuse of Naval Air Station (NAS), Barbers Point, Hawaii
Draft Environmental Impact Statement (DEIS)

Thank you for your August 26, 1998, transmittal requesting our comments on the subject report.

Our comments are as follows:

1. The developer should be responsible for mitigating the impacts attributable to his development. As such, he should be responsible for providing the improvements identified in the traffic report.
2. A development of this magnitude will have regional impacts. The applicant should be responsible for identifying and providing his prorata share of required roadway improvements.
3. Plans for construction work within the State highway right-of-way must be submitted to our Highways Division for review and approval.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA
Director of Transportation



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2317 4520

21 DEC 1998

Mr. Kazu Hayashida
Director of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, HI 96813

Dear Mr. Hayashida:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 16, 1998, regarding the subject document. The following are provided in response to your comments:

Comments:

- a. The developer should be responsible for mitigating the impacts attributable to his development. As such, he should be responsible for providing the improvements identified in the traffic report.
- b. A development of this magnitude will have regional impacts. The applicant should be responsible for identifying and providing his pro rata share of required roadway improvements.
- c. Plans for construction work within the State highway right-of-way must be submitted to our Highways Division for review and approval.

Response:

Your comments refer to operational issues that are outside the scope of the EIS. Those issues should be addressed with the Barbers Point NAS Redevelopment Commission. A copy of this letter is being forwarded to Mr. William M. Bass, Executive Director of the Barbers Point NAS Redevelopment Commission.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

5090P.1F10C
Ser 231-4520

Copy to:
Mr. William M. Bass, Executive Director
Barbers Point NAS Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406



STATE OF HAWAII
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

October 8, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command,
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawai'i 96860-3134

EIS No. (98) 225

Re: Draft Environmental Impact Statement (DEIS) For The Disposal and Reuse of Naval Air Station (NAS), Barbers Point, Hawai'i

Dear Mr. Minato:

Thank you for the opportunity to review the draft Environmental Impact Statement (DEIS) for the disposal and reuse of Naval Air Station Barbers Point, Hawai'i (NASBP). The DEIS evaluates potentially significant environmental impacts that may result from the proposed disposal and reuse of the NASBP. The document concludes that "with the exception of traffic associated with special events, other impacts could be either avoided or mitigated to a level that would be considered not significant". The Office of Hawaiian Affairs (OHA) disagrees with this conclusion as it relates to cultural property.

OHA is concerned with the mitigation measure proposed for the Cultural Resources found at NASBP. The single proposed measure is a deed covenant in the transfer documents. The language of the proposed deed covenants is not included in the DEIS.

Section 106 of the National Historic Preservation Law requires that projects proponents consult with native Hawaiian organizations, in particular the Office of Hawaiian Affairs and Hui Malama I Na Kupuna o Hawai'i Nei when a project is expected to have adverse impacts on cultural property. However, a requirement for consultation is not present in State law. Unless the proposed deed covenant includes a requirement to consult with Native Hawaiian there will be an adverse affects from the transfer of property away from federal jurisdiction.

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command,
October 8, 1998
Page Two

Therefore, we urge the Navy to include in the deed restrictions a covenant which requires consultation with native Hawaiian organizations. If you have any questions, please contact Lynn Lee EIS Planner at 594-1936.

Sincerely



Randall Ogata
Administrator



Colin Kippen
Acting Land Division Officer

cc: Board of Trustees



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/4535
21 Dec 1998

Mr. Randall Ogata, Administrator
Mr. Colin Kippen
State of Hawaii
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, HI 96813

Dear Mr. Ogata and Mr. Kippen:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 8, 1998, regarding the subject document. In response to your concerns about the DEIS as it relates to cultural property, we provide the following:

Comment: The Office of Hawaiian Affairs (OHA) is concerned with the mitigation measure proposed for the cultural resources found at NAS Barbers Point. The single proposed measure is a deed covenant in the transfer documents. The language of the proposed deed covenants is not included in the DEIS.

Response: The deed covenants were in the early stages of being drafted, and information was not available to be included in the DEIS. Covenant language was developed in consultation with the State Historic Preservation Officer (SHPO) and other interested parties. The purpose of the deed covenants is to ensure that significant cultural resources are appropriately preserved, protected, and maintained.

Comments: Section 106 of the National Historic Preservation Law requires that project proponents consult with Native Hawaiian organizations, in particular the OHA and Hui Malama I Na Kupuna o Hawai'i Nei when a project is expected to have adverse impacts on cultural property. However, a requirement for consultation is not present in State law. Unless the proposed deed covenant includes a requirement to consult with Native Hawaiians, there will be an adverse affect from the transfer of property away from federal jurisdiction.

Therefore, we urge the Navy to include in the deed restrictions a covenant which requires consultation with Native Hawaiian organizations.

Response: Deed covenants include provisions for consultation with Native Hawaiian organizations. As discussed below, however, we believe that including a deed covenant requiring transferees to consult with Native Hawaiians places no additional public law requirement on transferees.

Hawaii statutes and regulations provide important protections for Hawaii's cultural resources, e.g. H.R.S. Chapter 6E and H.A.R. Title 13, Chapter 146. All state, county and city agencies and

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officers before approving any project involving a permit, license, certificate, land use change, subdivision, or other entitlement for use that might affect historic property or a burial site must advise the Department of Land and Natural Resources, State Historic Preservation Division prior to giving any approval. Additionally, Hawaii's statutory and regulatory historic preservation review process requires interested persons, which includes the OHA, other Hawaiian groups, and representatives of other ethnic groups as appropriate, to be offered the opportunity to participate in the review process. This review process also includes detailed procedures for assessing the impact of undertakings upon historic properties.

Also, as you are aware, the National Historic Preservation Act places important requirements on transferees to promote preserving significant cultural resources. The Act does this by encouraging owners to preserve resources intact, protect items of cultural importance to Native Hawaiians, and giving notice to and consulting with native Hawaiian organizations (which includes the OHA and Hui Malama I Na Kapuna o Hawai'i Nei) before excavating or disposing of any cultural item.

Thus, we do not consider the transfer of property to be an adverse effect because Federal and Hawaii laws place sufficient legal requirements upon all transferees to protect significant cultural resources and deed covenants provide for consultation with Native Hawaiian organizations before disturbing archaeological sites.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,



MELVIN N. KAKU

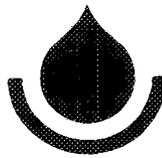
Director

Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843
PHONE (808) 527-6180
FAX (808) 533-2714



October 16, 1998

JEREMY HARRIS, Mayor
EDDIE FLORES, JR., Chairman
FORREST C. MURPHY, Vice Chairman
KAZU HAYASHIDA
JAN M.L.Y. AMI
JONATHAN K. SHIMADA, PhD
BARBARA KIM STANTON
CHARLES A. STED

CLIFFORD S. JAMILE
Manager and Chief Engineer

Mr. Fred Minato (Code 231FM)
Pacific Division, Naval Facilities
Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

Subject: Your Memorandum Regarding the Draft Environmental Impact Statement for the Disposal and Reuse of Naval Air Station, Barbers Point Hawaii

Thank you for the opportunity to review the Draft Environmental Impact Statement (DEIS) for the Disposal and Reuse of NAS Barbers Point, Hawaii. We have no objections to the Navy and State preferred alternative, consisting of a general aviation reliever airport, light industrial, commercial, residential, park and recreational uses. We understand that about 1,130 acres is being retained by the Navy and about 2,100 acres declared surplus and is available for redevelopment. We have the following comments to offer:

1. We have submitted our application to the Federal Department of Health and Human Services, for the acquisition of about 35.8 acres on the southwest corner of the released area for a desalination plant. The attached application describes the proposed uses and phasing.
2. We understand a potable water master plan is being developed for submission to us for review and approval. The master plan should identify water source and storage facilities existing, and projected potable and nonpotable demands and pipeline infrastructure associated with the preferred land uses. The master plan should include hydraulic calculations showing the flows and pressures that the existing system is able to provide and a comparison of its adequacy with Federal and Board of Water Supply water system standards. Water system distribution schematic maps, as-built construction drawings and records of unaccounted water should be compiled and submitted because they are critical for assessing the operation and maintenance requirements of the water system. This will facilitate the evaluation of the adequacy of the existing system to accommodate planned land uses in the retained and released areas.
3. The EIS should provide a discussion on the various alternatives for the retention and transfer of the existing utilities, including the water system. Benefits and impacts should also be included. Pertinent portions of the Final Utility System Transfer Plan, Naval Air Station, Barbers Point, should be appended to the EIS and the recommendations summarized in the text. Fully understanding the utility retention and transfer options and benefits will assist decision makers in meeting the utility needs of the retained and released areas during the interim period, until permanent infrastructure is installed.



Mr. Fred Minato
October 16, 1998
Page 2

4. The DEIS indicates the existing Barbers Point Shaft, State Well No. 2103-03, meets the minimum National Primary Drinking Water Standards. However, on occasion, chloride levels exceed the 250 mg/l level recommended by the National Secondary Drinking Water Standards. The elevated chloride levels are indicative of the southern portion of the Ewa-Kunia aquifer, largely due to the loss of agricultural irrigation recharge.
5. The availability of water for the released area will be confirmed when the construction plans and building permits are submitted for our review and approval.
6. The use of reclaimed water should be maximized in the retained and released areas for the irrigation of large landscaped areas. We agree that if the existing water system network is not viable for potable distribution needs beyond the interim period, consideration should be given to converting the system to provide brackish and reclaimed water. We recommend the use of drought tolerant plants and xeriscaping principles for all landscaping and the use of efficient irrigation systems, including drip irrigation. The irrigation systems should incorporate moisture sensors to avoid the operation of the system in the rain and to check if there is adequate moisture in the ground.
7. Approved backflow prevention assemblies will be required on all potable water services to prevent the backflow or back-siphonage of contaminants from potential cross-connections to the nonpotable system.
8. We reserve further comments until the development plans are formalized.

If you have any questions, please contact Barry Usagawa at 527-5235.

Very truly yours,


CLIFFORD S. JAMILE
Manager and Chief Engineer

Attachments



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4534
21 DEC 1998

Mr. Clifford S. Jamile
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, HI 96843

Dear Mr. Jamile:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 16, 1998, regarding the subject document. In response to your comments about the Draft EIS, we provide the following:

Comment: We understand a potable water master plan is being developed for submission to us for review and approval. The master plan should identify water source and storage facilities existing, and protected potable and nonpotable demands and pipeline infrastructure associated with the preferred land uses. The master plan should include hydraulic calculations showing the flows and pressures that the existing system is able to provide and a comparison of its adequacy with Federal and Board of Water Supply water system standards. Water system distribution schematic maps, as-built construction drawings and records of unaccounted water should be compiled and submitted because they are critical for assessing the operation and maintenance requirements of the water system. This will facilitate the evaluation of the adequacy of the existing system to accommodate planned land uses in the retained and released areas.

Response: An infrastructure master plan is being prepared by a consultant to the Barbers Point Naval Air Station Redevelopment Commission. We trust that the Commission and its consultant are aware of your submittal requirements. A copy of this letter will be forwarded to Mr. William Bass, Executive Director of the Commission.

Comment: The EIS should provide a discussion of the various alternatives for the retention and transfer of the existing utilities, including the water system. Benefits and impacts should also be included. Pertinent portions of the Final Utility System Transfer Plan, NAS Barbers Point, should be appended to the EIS and the recommendations summarized in the text. Fully understanding the utility retention and transfer options and benefits will assist decision makers in meeting the utility needs of the retained and released areas during the interim period, until permanent infrastructure is installed.

Response: The issue of retention and transfer of existing utilities is beyond the scope of the EIS. Alternatives for dealing with utilities and other operational issues are being discussed separately with the Barbers Point Naval Air Station Redevelopment Commission and other appropriate agencies.

Comment: The Draft EIS indicates the existing Barbers Point Shaft, State Well No. 2103-03, meets the minimum National Primary Drinking Water Standards. However, on occasion, chloride levels exceed the 250 mg/l level recommended by the National Secondary Drinking Water Standards. The elevated chloride levels are indicative of the southern portion of the Ewa-Kunia aquifer, largely due to the loss of agricultural irrigation recharge.

Response: Section 3.7.1 of the EIS will be revised to add the following text, "Elevated chloride levels, influenced by the loss of agricultural irrigation recharge (which used higher quality water), are indicative of the southern portion of the Ewa-Kunia aquifer." A new paragraph will begin with the existing following text, "A 1987 study by the USGS determined that the chlorides are from normal infiltration of rainfall, sea spray, and irrigation return water . . ."

Comment: The availability of water for the released area will be confirmed when the construction plans and building permits are submitted for our review and approval.

Response: The EIS provides a land use planning level of detail. The submittal of construction plans and building permit applications will be the responsibility of the subsequent landowners and/or developers.

Comment: The use of reclaimed water should be maximized in the retained and released areas for the irrigation of large landscaped areas. We agree that if the existing water system network is not viable for potable distribution needs beyond the interim period, consideration should be given to converting the system to provide brackish and reclaimed water. We recommend the use of drought tolerant plants and xeriscaping principles for all landscaping and the use of efficient irrigation systems, including drip irrigation. The irrigation systems should incorporate moisture sensors to avoid the operation of the system in the rain and to check if there is adequate moisture in the ground.

Response: Your comments will be conveyed to Mr. William Bass, Executive Director of the Barbers Point Naval Air Station Redevelopment Commission, via this letter.

Comment: Approved backflow prevention assemblies will be required on all potable water services to prevent the backflow or back-siphonage of contaminants from potential cross-connections to the nonpotable system.

Response: The Barbers Point Naval Air Station Redevelopment Commission and subsequent landowners/developers need to be informed of this requirement for backflow prevention assemblies. Your comments will be conveyed to Mr. William Bass, Executive Director of the Barbers Point Naval Air Station Redevelopment Commission, via this letter.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,



MELVIN N. KAKU

Director

Environmental Planning Division

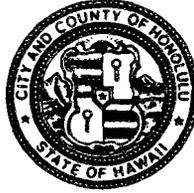
Copy to:

Mr. William M. Bass, Executive Director
Barbers Point NAS Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

DEPARTMENT OF COMMUNITY AND SOCIAL RESOURCES
CITY AND COUNTY OF HONOLULU

STANDARD FINANCE BUILDING
715 SOUTH KING STREET
HONOLULU, HAWAII 96813



JEREMY HARRIS
MAYOR

ABELINA MADRID SHAW
DIRECTOR

GEORGINA M. YUEN
DEPUTY DIRECTOR

ADMINISTRATION
2ND FLOOR: (808) 527-5311
FAX: (808) 523-4074

ELDERLY AFFAIRS DIVISION
HONOLULU COMMITTEE ON AGING
5TH FLOOR: (808) 523-4761

WORKHAWAII DIVISION
5TH FLOOR: (808) 523-4120

SPECIAL PROJECTS SECTION
HONOLULU COUNTY COMMITTEE ON THE STATUS OF WOMEN
MAYOR'S COMMITTEE FOR PERSONS WITH DISABILITIES
MAYOR'S CHILD CARE ADVISORY BOARD
5TH FLOOR: (808) 527-6264

October 12, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134

Dear Mr. Minato:

RE: Draft Environmental Impact Statement - BPNAS

This is in response to your letter of August 26, 1998 forwarding for our review and comment the Draft Environmental Impact Statement for the Disposal and Reuse of Barbers Point Naval Air Station (BPNAS), Hawaii as prepared by the U. S. Department of the Navy.

The Department of Community Services for the City and County of Honolulu has reviewed the aforementioned document and offers the following comments:

With respect to adverting and/or alleviating possible adverse impacts that may result from changes in demographics due to planned programs for the homeless, to include families with children, please be informed that the Department of Community Services, in and of itself, as well as through its Partners In Care consortium comprised of over forty (40) homeless service providers, has been and will continue to be diligent in its efforts to promote a continuum of services that is in the best interests of the service clientele and at-large community. Our commitment in these regards is based on the premise that the provision of facilities and land at BPNAS is a necessary measure towards alleviating homelessness in the City and County of Honolulu.

If you have any questions or require further clarifications concerning our comments, please direct your inquiries to our department's Office of Special Projects at (808) 527-6264.

Thank you for the opportunity to comment on the BPNAS Draft Environmental Impact Statement.

Sincerely,


ABELINA M. SHAW
Director

AMS:ds



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4518

21 DEC 1998

Ms. Abelina M. Shaw, Director
Department of Community and Social Resources
City and County of Honolulu
715 South King Street
Honolulu, HI 96813

Dear Ms. Shaw:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION, BARBERS
POINT

Thank you for your letter of October 12, 1998, regarding the subject document. We certainly appreciate your comments and commitment to the "at-large community." Should we need further assistance or information, we will contact your department's Office of Special Projects.

Sincerely,

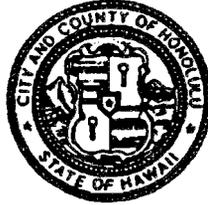

MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 2ND FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4564 • Fax: (808) 523-4567

JEREMY HARRIS
MAYOR



RANDALL K. FUJIKI, AIA
DIRECTOR

ROLAND D. LIBBY, JR., AIA
DEPUTY DIRECTOR

October 8, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command
Department of the Navy
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

Subject: Draft Environmental Impact Statement (EIS) for the Disposal and
Reuse of Naval Air Station, Barbers Point, Hawaii

This responds to the subject draft EIS for the proposed reuse of the Barbers Point Naval Air Station.

Based on our review of the draft EIS, we offer the following comments.

We request that the final EIS include a current proposal or plan for the transfer of lands to various public agencies. The transfer of lands to the City's Department of Parks and Recreation will have significant positive, sociocultural impacts in terms of increased opportunities for public access to the shoreline. The transfer will also have significant fiscal impacts on the City related to the development of the local and regional infrastructure systems. Since this information has recently become available through the BPNAS Infrastructure Committee, we believe the inclusion of some of that information in the final EIS would be valuable.

Thank you for the opportunity to comment on the subject document.

Mr. Fred Minato
Page 2
October 8, 1998

Please contact Mr. Brian Suzuki of our Planning and Programming Division at 527-6316 if you have any questions.

Sincerely,

RK. Fujiki
FOR RANDALL K. FUJIKI
Director

RKF:ei

c: Department of Parks and Recreation



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/
21 DEC 1998 4533

Mr. Randall K. Fujiki, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 2nd Floor
Honolulu, HI 96813

Dear Mr. Fujiki:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION, BARBERS POINT

Thank you for your letter of October 8, 1998, regarding the subject document. Your comments and our responses are provided below:

Comments: We request that the Final EIS include a current proposal or plan for the transfer of lands to various public agencies. The transfer of lands to the City's Department of Parks and Recreation will have significant positive, sociocultural impacts in terms of increased opportunities for public access to the shoreline. The transfer will also have significant fiscal impacts on the City related to the development of the local and regional infrastructure systems. Since this information has recently become available through the Barbers Point Naval Air Station Infrastructure Committee, we believe the inclusion of some of that information in the Final EIS would be valuable.

Response: The environmental impacts of property disposal will be the same, regardless of the method of property conveyance. For this reason, the information you requested will not be added to the final document. However, if you have any specific questions or require additional information regarding the plans for transfer to the City, please contact Ms. Genie Wery of our real estate department at 471-3217.

Sincerely,

MELVIN N. KAKU

Director

Environmental Planning Division

Copy to:

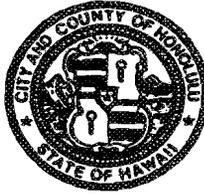
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU HI 96813

23 MLY
Ista & the
Fred

JEREMY HARRIS
Mayor



KENNETH E. SPRAGUE
Director

CHERYL K. OKUMA-SEPE, ESQ.
Deputy Director
ENV 98-176

September 11, 1998

Mr. Melvin N. Kaku
Director
Environmental Planning Division
Dept. of the Navy
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Dear Mr. Kaku:

Subject: Draft Environmental Impact Statement (DEIS)
The Disposal and Reuse of Naval Air Station (NAS)
Barbers Point, Oahu, Hawaii

We have reviewed the subject DEIS and have no comments to offer at this time.

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at 523-4150.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Sprague", with a long horizontal flourish extending to the right.

KENNETH E. SPRAGUE
Director



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 23T/ 4512

21 DEC 1998

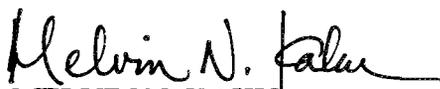
Dr. Kenneth E. Sprague
Director
City and County of Honolulu
Department of Environmental Services
650 South King Street
Honolulu, HI 96813

Dear Dr. Sprague:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR
THE DISPOSAL AND REUSE OF NAVAL AIR STATION,
BARBERS POINT

Thank you for your letter of September 11, 1998, regarding the subject document. We acknowledge that the Department of Environmental Services has reviewed the DEIS and has no comments at this time. We appreciate your timely response.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
Phone: (808) 523-4341 • Fax: (808) 527-6957

JEREMY HARRIS
MAYOR



JONATHAN K. SHIMADA, PhD
DIRECTOR AND CHIEF ENGINEER

ISIDRO M. BAQUILAR
DEPUTY DIRECTOR

IN REPLY REFER TO:
PRO 98-196

October 6, 1998

Mr. Fred Minato
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Dear Mr. Minato:

Subject: Environmental Impact Statement for the
Disposal and Reuse of Naval Air Station Barbers Point, Hawaii

We offer you our comments to the Environmental Impact Statement for the Barbers Point Naval Air Station.

1. The roadways, drainage systems and other infrastructure should meet standards set by the appropriate City agencies should the Department of Facility Maintenance be required to accept the maintenance of those facilities.
2. We wish to review the design drawings and related studies.

If you have any questions, please call Ms. Laverne Higa at 527-6246.

Very truly yours,

A handwritten signature in black ink, appearing to read "J. K. Shimada".

Jonathan K. Shimada, PhD
Director and Chief Engineer

LH



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4532
21 DEC 1998

Dr. Jonathan K. Shimada
Director and Chief Engineer
Department of Facility Maintenance
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, HI 96813

Dear Dr. Shimada:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 6, 1998, regarding the subject document. We acknowledge that it is your position that the roadways, drainage systems and other infrastructure should meet standards set by the appropriate City agencies should the Department of Facility Maintenance be required to accept the maintenance of those facilities. Your position will be incorporated into Section 1.9, *Permit Requirements and Related Coordination*.

Your request to review the design drawings and related studies is being forwarded to Mr. William M. Bass, Executive Director of the Barbers Point Naval Air Station Redevelopment Commission. This commission is responsible for implementing the *NAS Barbers Point Community Redevelopment Plan* (Helber Hastert and Fee, Planners, March 1997) and its amendments.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,

MELVIN N. KAKU
Director
Environmental Planning Division

Copy to: (See next page)

5090P.1F10C

Ser 231/

4532

Copy to:

Mr. William M. Bass, Executive Director
Barbers Point Naval Air Station
Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, Hawaii 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET • HONOLULU, HAWAII 96813
PHONE: (808) 523-4414 • FAX: (808) 527-6743



JEREMY HARRIS
MAYOR

JAN NAOE SULLIVAN
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

98-06611 (ST)

'98 EA Comments Zone 4

October 12, 1998

Mr. Fred Minato
Pacific Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

Draft Environmental Impact Statement (EIS):
Disposal and Reuse of Naval Air Station (NAS), Barbers Point
Ewa, Oahu, Tax Map Keys: various

We have reviewed the above-referenced Draft EIS received on August 31, 1998, and have the following comments:

Section 1.9 - PERMIT REQUIREMENTS AND RELATED COORDINATION

This section does not address the County permits that are required such as Special Management Area (SMA) Use Permits for developments within the SMA.

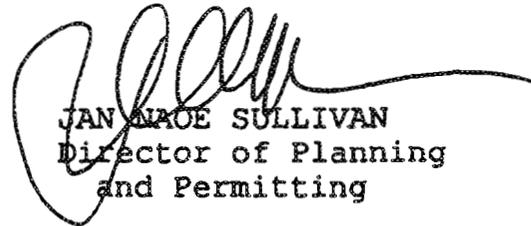
Section 5.6 - CONSISTENCY WITH LAND USE PLANS, POLICIES AND CONTROLS

The final EIS should be revised to address whether the Local Redevelopment Agency (LRA) will be pursuing compliance with the City and County of Honolulu's land use regulations. We note that State ownership and oversight may qualify planned uses as "public uses and structures." However, the LRA may wish to comply with these regulations in the event that such lands are to be leased, or sold to private or non-profit entities.

Mr. Fred Minato
Page 2
October 12, 1998

Should you have any questions, please contact Steve Tagawa of our Coastal Lands Branch at 523-4817.

Very truly yours,



JAN AROE SULLIVAN
Director of Planning
and Permitting

JNS:am

cc: Melvin N. Kaku, Environmental
Planning Division

g:zd\deabarbs.sht



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4531
21 DEC 1998

Ms. Jan Naoe Sullivan
Director of Planning and Permitting
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, HI 96813

Dear Ms. Sullivan:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 12, 1998, regarding the subject document. In response to your comments, we provide the following:

Comment: SECTION 1.9 – PERMIT REQUIREMENTS AND RELATED COORDINATION. This section does not address the County permits that are required such as Special Management Area (SMA) Use Permits for developments within the SMA.

Response: Section 1.9 is not intended as a comprehensive listing of all required permits and approvals for the redevelopment of NAS Barbers Point. As the disposal of the base is a federal action, we have focused on those approvals required by federal law.

Comment: SECTION 5.6 – CONSISTENCY WITH LAND USE PLANS, POLICIES AND CONTROLS. The Final EIS should be revised to address whether the Local Redevelopment Authority (LRA) will be pursuing compliance with the City and County of Honolulu's land use regulations. We note that State ownership and oversight may qualify planned uses as "public uses and structures." However, the LRA may wish to comply with these regulations in the event that such lands are to be leased, or sold to private or non-profit entities.

Response: This issue is beyond the scope of the EIS and is not within the Navy's jurisdiction. We suggest that you communicate directly with Mr. William M. Bass, Executive Director, Barbers Point Naval Air Station Redevelopment Commission at 674-3540.

5090P.1F10C
Ser 231/

4531

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,



MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Mr. William M. Bass, Executive Director
Barbers Point Naval Air Station
Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 8TH FLOOR • HONOLULU, HAWAII 96813-3017
PHONE (808) 523-4533 • FAX (808) 523-4950



JEREMY HARRIS
MAYOR

PATRICK T. ONISHI
CHIEF PLANNING OFFICER
DONAL HANAIKE
DEPUTY CHIEF PLANNING OFFICER

JH 8/98-1712

September 24, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division, Naval Facilities
Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

**Draft Environmental Impact Statement (DEIS)
for the Disposal and Reuse of the
Naval Air Station (NAS), Barbers Point, Hawaii**

Thank you for the opportunity to review and comment on the subject DEIS. We would welcome the return of the base to civilian control, particularly in view of its strategic position in the Ewa region and its potentially significant future benefits to the surrounding communities as well as to Oahu's community-at-large. We hope to remain an actively involved and committed participant in this process.

While the primary purpose of the DEIS is to address the transfer to civilian use, we take this opportunity to discuss the relationship of the Naval Air Station Barbers Point Community Redevelopment Plan with current City and County plans and policies.

The Ewa Development Plan (DP) indicates that "projects involving a significant zone change will be required to submit an Environmental Assessment to help the Department [of Planning and Permitting] determine whether the project involves a significant environmental effect and if the project is supportive of the vision for Ewa's development." (Sec. 5.4.1, p. 5-9)

Mr. Fred Minato
Pacific Division, Naval Facilities
Engineering Command
September 24, 1998
Page 2

In addition, the DP requires that the Environmental Assessment (EA)/Environmental Impact Statement (EIS) for projects which are 25 acres or more include a Project Master Plan which shall help "the Planning Department to determine whether the project supports the vision, policies, principles, and guidelines of the Ewa Development Plan." (Section 5.4..2, p. 5-12)

In some cases, projects which have already prepared an EA/EIS will not be required to prepare a new EA in support of their zone change application. (Section 5.4.1, p. 11)

The DEIS for the Disposal and Reuse of the NAS, Barbers Point provides largely adequate information for the disposal of surplus Navy properties. However, the DEIS does not provide adequate information and analysis to permit the full determination of consistency with vision and implementing land use and public facilities policies of the DP, and does not conform with the requirements for coverage, scope, and content for the Project Master Plan required under the DP.

As a consequence, the City will reserve the right to require projects submitting zone change applications or of 25 acres or more as part of the reuse of Barbers Point NAS surplus lands to submit a Supplemental EA/EIS in order to provide the level of information required under the DP.

The DEIS indicates that most of the Barbers Point NAS plan coincides with City General Plan and Ewa Development Plan policies. However, we note the following and request clarification where appropriate.

General Plan

1. The DEIS states that the preferred alternative would encourage the visitor industry. How would it do that?
2. The General Plan calls for directing major economic activity to the secondary urban center of Kapolei. We acknowledge that the Barbers Point NAS Redevelopment Plan will contribute to that. However, we also note that other alternatives to the proposed action may have offered greater employment opportunities and have the potential to support a greater portion of the region's population.

Mr. Fred Minato
Pacific Division, Naval Facilities
Engineering Command
September 24, 1998
Page 3

Ewa Development Plan

1. We strongly request that all efforts be made to make all, or as much of the shoreline as possible, available and developed for public use as a park. The Barbers Point NAS Redevelopment Plan is generally in conformance with this.
2. The DEIS notes that the preferred alternative does not provide active recreation in the mauka areas. However, we do intend to provide active recreation facilities in the lands designated "Recreation" in the northeast area of the land.
3. The DEIS notes that landscape buffers and roadway patterns do not always separate residential and light industrial uses. We would hope that the design for the actual implementation will achieve more of this.
4. The City requests the opportunity to participate in the development of detailed urban design principles and guidelines as well as the creation of development standards for the eventual development of facilities.

We hope these comments are helpful in preparing the Final EIS. Should there be any questions regarding our comments, please contact Lowell Chun of our staff at 527-6015.

Yours very truly,


PATRICK T. ONISHI
Chief Planning Officer

PTO:ft

c: Mayor Jeremy Harris (35186)



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

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Ser 231/

4530

21 DEC 1998

Mr. Patrick T. Onishi
Chief Planning Officer
City and County of Honolulu
Planning Department
650 South King Street, Eighth Floor
Honolulu, HI 96813

Dear Mr. Onishi:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION, BARBERS POINT

Thank you for your letter of September 24, 1998, regarding the subject document. You are correct in acknowledging that the primary purpose of the Draft EIS concerns the "transfer to civilian use" and is not intended to satisfy the requirements of the Ewa Development Plan. Any additional information required by your department for "projects involving a significant zone change" to determine whether the project "involves a significant environmental effect and if the project is supportive of the vision for Ewa's development" should be addressed to the local redevelopment authority, the Barbers Point Naval Air Station Redevelopment Commission. Mr. William M. Bass is the Executive Director and can be reached at 674-3540. We will forward this letter to his attention.

The following responses are provided in answer to your questions regarding the relationship of the Draft EIS to the General Plan and the Ewa Development Plan:

General Plan

Comment: The Draft EIS states that the preferred alternative would encourage the visitor industry. How would it do that?

Response: The State-preferred alternative includes proposed developments that would host events involving and attracting visitors. Examples include the motor sports raceway complex and an international sports center. This information will be included in Section 5.6.1.1.

Comment: The General Plan calls for directing major economic activity to the secondary urban center of Kapolei. We acknowledge that the Barbers Point Naval Air Station Redevelopment Plan will contribute to that. However, we also note that other alternatives to the proposed action may have offered greater employment opportunities and have the potential to support a greater portion of the region's population.

Response: We concur that there are other redevelopment alternatives which could offer greater potential employment opportunities and we evaluated several such alternatives in this EIS. As

identified in Section 4.6.2.2, Employment, the Large Airport alternative may provide the greatest number of increase in jobs – 9,300; the State-preferred alternative provides the least potential for jobs, 3,600. Section 5.6.1.1, Consistency with Land Use Plans, Policies and Controls – City and County of Honolulu General Plan, merely identifies whether or not the alternative redevelopment plans are consistent with the General Plan.

Ewa Development Plan

Comment: We strongly request that all efforts be made to make all, or as much of the shoreline as possible, available and developed for public use as a park. The Barbers Point Naval Air Station Redevelopment Plan is generally in conformance with this.

Response: No response requested.

Comment: The Draft EIS notes that the preferred alternative does not provide active recreation in the mauka areas. However, we do intend to provide active recreation facilities in the lands designated “Recreation” in the northeast area of the land.

Response: Thank you for the correction. The Large Airport alternative should be identified as the alternative that does not provide active recreation facilities in the mauka areas (rather than the State-preferred alternative). This has been corrected in the Final EIS.

Comment: The Draft EIS notes that landscape buffers and roadway patterns do not always separate residential and light industrial uses. We would hope that the design for the actual implementation will achieve more of this.

Response: Specific landscape buffers and roadway patterns can be considered by the Barbers Point Naval Air Station Redevelopment Commission, the local redevelopment authority responsible for implementing reuse. This letter will be forwarded to Mr. William M. Bass, Executive Director of the commission.

Comment: The City requests the opportunity to participate in the development of detailed urban design principles and guidelines as well as the creation of development standards for the eventual development of facilities.

Response: Your request will be forwarded to the Executive Director of the Barbers Point Naval Air Station Redevelopment Commission.

Thank you for your comments and your staff's assistance in this EIS process. Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at

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Ser 231/

4530

474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,



MELVIN N. KAKU

Director

Environmental Planning Division

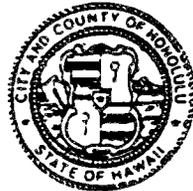
Copy to:

Mr. William M. Bass, Executive Director
Barbers Point Naval Air Station
Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111



JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF

WILLIAM B. CLARK
MICHAEL CARVALHO
DEPUTY CHIEFS

OUR REFERENCE CS-DL

October 2, 1998

Mr. Fred Minato
(Code 231 FM), Pacific Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawaii 96860-3134

Dear Mr. Minato:

Thank you for the opportunity to review the DEIS for the Disposal and Reuse of Naval Air Station Barbers Point, Hawaii. Our comments are as follows:

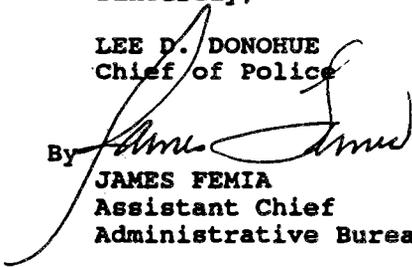
With the exception of the "No Action" alternative, all of the other alternatives will impact the services provided by the Honolulu Police Department. There will be an increase in calls for service when the size of the area, the number of residents, as well as the other anticipated uses for the area are considered. Incorporating the principles of crime prevention through environmental design may help in minimizing criminal activity. There will also be an inevitable increase in vehicular and pedestrian traffic in and around the area, which will impact the need for additional patrol activity.

In addition, an increase in calls for service because of fugitive dust and noise complaints during any construction activity will be expected.

If there are any questions, please call me at 529-3175 or Major Cary Tokunaga of District 8 at 674-8901.

Sincerely,

LEE D. DONOHUE
Chief of Police

By 
JAMES FEMIA
Assistant Chief
Administrative Bureau

cc: Major Cary Tokunaga, District 8
Managing Director



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2317- 4523
21 DEC 1998

Mr. Lee D. Donohue, Chief
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, HI 96813

Dear Mr. Donohue:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 2, 1998, regarding the subject document. We recognize that redevelopment of NAS Barbers Point will result in an increase in services provided by the Honolulu Police Department. This was analyzed and disclosed in the DEIS.

Incorporating principles of crime prevention through environmental design to minimize criminal activity can be considered during the redevelopment phase of the project. A copy of this letter is being forwarded to Mr. William M. Bass, Executive Director of the Barbers Point Naval Air Station Redevelopment Commission.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,

MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Mr. William M. Bass, Executive Director
Barbers Point Naval Air Station
Redevelopment Commission
Campbell Square
1001 Kamokila Boulevard, Suite 308
Kapolei, HI 96707

Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

10/9/98

Commander, Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Attn: Mr. Fred Minato (Code 231FM)

Dear Sir:

I testified about Barbers Point at the public hearing at Washington Intermediate School on October 7, 1998 and would like to follow up my comments with a few additional points. As the land at Barbers Point is returned to the state, I am concerned about its rich concentration of ancient sites.

I am a co-author of a book on the Hawaiian sites of O'ahu, scheduled for publication in April with the University of Hawaii Press. I was a photographer and writer for the book, which has taken ten years to produce. Over those ten years, I have visited and photographed over 125 Hawaiian sites on this island. Although I am not an archaeologist, I am an expert at this point at what remains on the island, just because I have seen most of it.

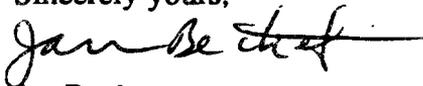
Although individual sites remain, very few integrated complexes of sites remain on this island. In fact, aside from the sites at Lualualei, I cannot think of another complex as extensive and well preserved. The sites at Barbers Point include a wide range of features, including some probably used by the ali'i (chiefs) and some used by the maka'ainana (commoners). It is the fact that most of these sites lie within an integrated complex that makes them especially valuable. I understand that some features will be placed on the National Register of Historic Places, and receive additional legal protection. However this piecemeal approach will not protect the entire complex. In my opinion, it is the entire complex that must be placed on the National Register, not just individual sites.

None of the maps showing potential divisions of land at Barbers Point appears to make preservation of the complex of sites a priority. Because the land where the main complex of sites is located will be parceled out to a number of agencies, it will become impossible to assure the integrity of the complex. Some of the sites appear to have been labeled "expendable" in the allocation of land.

The complex is especially valuable because it is the last major concentration of ancient coral sites anywhere, on any island. Barbers Point, I am sure you are aware, is an emerged seafloor, like much of the rest of the 'Ewa plain. Emerged seabeds containing ancient sites do not exist on the other islands according to a geologist I have spoken with. Because these sites are made of coral, they are doubly precious, and must be protected at all costs. Consider what has already been lost to development on the 'Ewa plain: Ko'olina, Campbell Industrial Park, and the Deep Draft Harbor. Now, right next to Barbers Point, the complex of sites at One'ula has been recently bulldozed in the construction of the 'Ewa Marina. What remains at Barbers Point is the only significant complex of ancient coral sites left on the plain, or anywhere else.

Please amend the draft EIS to create an archaeological preservation zone, with adequate buffers of land around the complex.

Sincerely yours,



Jan Becket
2742 Terrace Dr.
Honolulu, HI 96822
Jbecket@lava.net



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96360-7300

5090P.1F10C
Ser 231/4536
21 Dec 1998

Mr. Jan Becket
2742 Terrace Drive
Honolulu, HI 96822

Dear Mr. Becket:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 9, 1998, regarding the subject document. We acknowledge your concerns regarding ancient sites at NAS Barbers Point and provide the following responses:

Comment: The sites at Barbers Point include a wide range of features, including some probably used by the ali'i (chiefs) and some used by the maka'ainana (commoners). It is the fact that most of these sites lie within an integrated complex that makes them especially valuable. I understand that some features will be placed on the National Register of Historic Places (NRHP), and receive additional legal protection. However, this piecemeal approach will not protect the entire complex. In my opinion, it is the entire complex that must be placed on the National Register, not just individual sites.

The complex is especially valuable because it is the last major concentration of ancient coral sites anywhere, on any island. Barbers Point, I am sure you are aware, is an emerged seafloor, like much of the rest of the 'Ewa plain. Emerged seabeds containing ancient sites do not exist on the other islands according to a geologist I have spoken with. Because these sites are made of coral, they are doubly precious and must be protected at all costs. Consider what has been lost to development on the 'Ewa plain: Ko'olina, Campbell Industrial Park, and Deep Draft Harbor. Now, right next to Barbers Point, the complex of sites at One'ula has been recently bulldozed in the construction of the 'Ewa Marina. What remains at Barbers Point is the only significant complex of ancient coral sites left on the plain or anywhere else. Please amend the Draft EIS to create an archaeological preservation zone, with adequate buffers of land around the complex.

Response: Sites eligible for inclusion in the NRHP are afforded the same protection under the National Historic Preservation Act, as sites formally listed in the NRHP. As part of the Section 106 consultation with the Hawaii State Historic Preservation Officer (SHPO) for the disposal of surplus lands at NAS Barbers Point pursuant to the National Historic Preservation Act, the Navy proposes to attach covenants to the deeds transferring these properties to ensure the protection of sites eligible for inclusion in the NRHP. The protective covenants do not specify the creation of archaeological preservation zones for these sites. However, the protective covenants outline a

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Ser 231/4536

process of review and approval that property recipients must follow if any impacts to these sites are proposed. After the property transfer, implementation of the community redevelopment plan will be in compliance with the State of Hawaii's historic preservation law (Chapter 6E, H.R.S.). The SHPO, as the State Historic Preservation Division, is the regulatory agency under Chapter 6E. Hawaii's historic preservation review process is patterned after, but more stringent than, the Section 106 review. Part of the land being conveyed through the National Park Service to the State Department of Land and Natural Resources is being set aside for a Heritage Park that will preserve a large number of these sites and complexes.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,



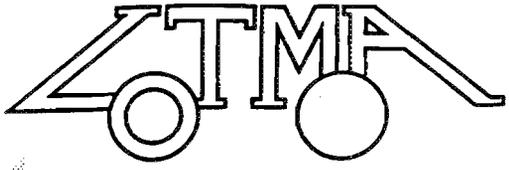
MELVIN N. KAKU

Director

Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

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October 12, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134

Dear Mr. Minato:

Re: Draft Environmental Impact Statement (DEIS) for the Disposal and Reuse of Naval Air Station Barbers Point

We have reviewed the DEIS, focusing on the effects of the BPNAS redevelopment on the regional transportation system. We offer the following comments for your consideration.

1. The DEIS seems to minimize the potential magnitude of traffic impacts on the regional system from redevelopment alternatives that will result in:
 - a) a resident population 20 times greater than baseline conditions;
 - b) the addition of between 1,138 to 1,767 more housing units to the existing 1,090 units;
 - c) the addition of roughly 21,807 to 32,189 average daily trips (ADT) over the existing 27,300 ADT; and
 - d) increases of 738-1,863 percent in civilian job opportunities (3,600-7,000 jobs under the State-preferred alternative to 9,300-18,000 jobs with the Large Airport alternative).

On page 2-17 (Sec. 2.8 Summary of Potential Impacts), it is noted that "With the exception of traffic impacts associated with special attractions, e.g., large events . . ." all significant impacts resulting from the increased demands of the BPNAS redevelopment can be mitigated to a level of insignificance. Further, pages 2-24 to 2-26 of Table 2.8-1 (Summary of Impacts and Mitigation for All Alternatives) indicates that for roads and traffic:

1. No mitigation is required for the increases in average daily trips (ADT);
2. Based on the analysis of four intersections, no significant traffic impacts are expected with the planned roadway improvements and the noted intersection improvements. (Note: Table 4.1.7 lists only three intersections, not four as indicated on p. 2-24.)
3. Even with recommended mitigation, there will be significant impacts during major events/special attractions.

Mr. Fred Minato
October 12, 1998

Surprisingly, there is no mention of any planned widening of Fort Barrette Road between BPNAS and the Kapolei Parkway to link with the planned widening between Kapolei Parkway and the H-1. This project would be a prime candidate to receive airport funding.

2. What the DEIS does not address is the cumulative impact of the additional traffic generated by the redevelopment alternatives on the regional transportation system when coupled with all of the traffic generated by other planned (and existing) developments in the Ewa region, including the new campus for the University of Hawaii - West Oahu.

However, this can be accomplished with the cooperation and participation of the BPNAS Redevelopment Commission in a current effort to develop a revised Ewa Regional Transportation Master Plan, which will supercede the 1992 regional study. To date, the Commission has supplied traffic and land use data to the City Department of Transportation Services for inclusion in the study. The consultant will be refining land use forecasts for the region based on additional or modified development proposals and identifying changes and/or deficiencies in the base master plan. The study will also assess the effectiveness of improvements recommended to address identified deficiencies.

Thank you for the opportunity to offer these comments. Should you have any questions, please feel free to call me at 677-7433.

We look forward to receiving a copy of the FEIS.

Sincerely,



Darryln T. Bunda
Executive Director



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

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21 DEC 1998

4502

Ms. Darrlyn T. Bunda
Executive Director
Leeward Oahu Transportation Management Association
94-229 Waipahu Depot Road, Suite 407
Waipahu, HI 96797

Dear Ms. Bunda:

**Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT**

Thank you for your letter of October 12, 1998, regarding the subject document. In response to your comments, we offer the following:

Comments: The DEIS seems to minimize potential magnitude of traffic impacts on the regional system from redevelopment alternatives that will result in:

- a. a resident population 20 times greater than baseline conditions;
- b. the addition of 1,138 to 1,767 more housing units;
- c. the addition of 21,807 to 32,189 average daily trips (ADT) over the existing 27,300 ADT;
- d. increases of 738-1,863 percent in civilian job opportunities (3,600-7,00 jobs under State-preferred alternative to 9,300-18,000 jobs with Large Airport alternative.

Surprisingly, there is no mention of any planned widening of Fort Barrette Road between NAS Barbers Point and the Kapolei Parkway to link with the planned widening between Kapolei Parkway and the Parkway and the H-1. This project would be a prime candidate to receive airport funding.

Response: The traffic analysis assumes that planned future major roadways in the adjacent areas of the Ewa District will be present. These include connections to the planned major North-South Road facility as well as connections to Kalaeloa Boulevard, to the planned City of Kapolei roadway network, and to the planned Ewa Marina roadways. With these assumptions, the traffic projected as a result of the reuse alternatives can sufficiently be handled with the mitigation identified in the DEIS.

Mitigation of Fort Barrette Road is not anticipated because of the planned future major roadways (identified in the previous paragraph) and the following:

a. Most of the new development areas are located in the eastern and western areas of the NAS Barbers Point. Most of the traffic from these areas would likely use roadway connections other than Fort Barrette Road.

b. There is little reuse planned in the Central Area located at the southern end of Barbers Point Access Road, and most of the planned reuse would not contribute to major increases in weekday peak hour traffic (relative to the No Action alternative).

c. The new roadway connections to NAS Barbers Point would likely attract use by a portion of the existing traffic that now uses Fort Barrette Road to travel to/from the Navy housing areas to the east and west of the Central Area.

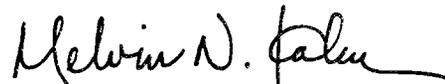
With the above-noted assumptions, the effect is that traffic is anticipated to increase approximately two to seven percent above the No Action alternative on Fort Barrette Road. We believe such a slight increase does not require mitigation.

Comment: What the DEIS does not address is the cumulative impact of the additional traffic generated by the redevelopment alternatives on the regional transportation system when coupled with all of the traffic generated by other planned and existing developments in the Ewa region, including the new campus for the University of Hawaii – West Oahu. However, this can be accomplished with the cooperation and participation of the Barbers Point Naval Air Station Redevelopment Commission in a current effort to develop a revised Ewa Regional Transportation Master Plan, which will supercede the 1992 study. To date, the Commission has supplied traffic and land use data to the City Department of Transportation Services for inclusion in the study. The consultant will be refining land use forecasts for the region based on additional or modified development proposals and identifying changes and/or deficiencies in the base master plan. The study will also assess the effectiveness of improvements recommended to address identified deficiencies.

Response: The DEIS incorporated the available regional transportation planning information available at the time the study was being conducted. Projects outside of publicly available transportation planning documents were not incorporated, as a regional traffic study would be beyond a reasonable level of evaluation for this DEIS. As you mentioned, the Ewa Regional Transportation Master Plan is currently being revised and will include planned projects in the region. These types of planning documents, which will be prepared with the cooperation of the Barbers Point Naval Air Station Redevelopment Commission, will reflect cumulative impacts of the region and incorporate the transportation planning needs.

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,



MELVIN N. KAKU

Director

Environmental Planning Division

Copy to:

Ms. Lesley Matsumoto

Belt Collins Hawaii

680 Ala Moana Boulevard, First Floor

Honolulu, HI 96813-5406

THE ESTATE OF JAMES CAMPBELL

October 9, 1998

Mr. Fred Minato
Pacific Division
Naval Facilities Engineering Command
258 Mskalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134

Dear Mr. Minato:

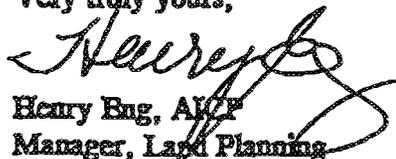
BPNAS DEIS

Thank you for providing us with a copy of the Draft EIS for the Disposal and Reuse of BPNAS. Our comments on the DEIS are as follows:

1. In Table 2.8-1, page 2-24, we wonder why there is a major difference in ADT between the no action alternative (12,251) and the baseline conditions (27,300).
2. We believe that a more thorough analysis of traffic generation would show a need to mitigate traffic generated from base reuse alternatives (especially the airport) by improvements to Fort Barrette Road. Table 4.1-7 Possible Traffic Mitigation Measures needs to be expanded to mitigate the impact of base reuse on regional road systems. This could be done by coordinating with and participating in the Ewa Highway Transportation Master Plan.
3. We believe it is inaccurate to state that reuse would have no significant impact just because all alternatives use less water than would be expected from large tract land use on Oahu. (page 4-80)
4. In the section on cumulative impacts (page 4-78), we believe that government must commit its fiscal resources if reuse is to proceed and that the significant adverse fiscal impacts would be more than offset by the benefits of the development. This is the basis for most land development whether conducted by government or by the private sector.

Thank you for your consideration of our comments. We look forward to receiving and reviewing the FEIS.

Very truly yours,


Henry Eng, AICP
Manager, Land Planning

THE ESTATE OF JAMES CAMPBELL

October 14, 1998

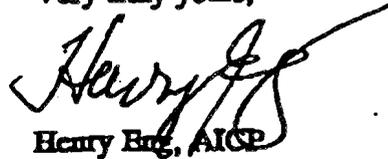
Mr. Fred Minato
Pacific Division
Naval Facilities Engineering's command
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134

Dear Mr. Minato:

BPNAS DEIS

As a supplement to our earlier comments, we want to clarify that AM/PM peak volumes were appropriately used to determine mitigative transportation measures rather than simply using ADT's.

Very truly yours,



Henry Eng, AICP
Manager, Land Planning

db:01002900\K11151



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/ 4517

21 DEC 1998

Mr. Henry Eng, AICP
Manager, Land Planning
The Estate of James Campbell
1001 Kamokila Boulevard
Kapolei, HI 96707

Dear Mr. Eng:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of October 9, 1998 and your supplemental letter of October 14, 1998, regarding the subject document. In response to your questions and comments, the following explanations are provided:

Comment: In Table 2.8-1, page 2-24, we wonder why there is a major difference in average daily trips (ADT) between the no action alternative (12,251) and the baseline conditions (27,300).

Response: The baseline condition represents ADT when the base was being utilized in 1995. The No Action alternative represents the ADT anticipated after base closure and should the Navy retain surplus properties in a caretaker status. In this No Action alternative, only the Navy-retained areas and excess properties (e.g., U.S. Coast Guard) would be utilized.

Comment: We believe that a more thorough analysis of traffic generation would show a need to mitigate traffic generated from base reuse alternatives (especially the airport) by improvements to Fort Barrette Road. Table 4.1-7 Possible Traffic Mitigation Measures needs to be expanded to mitigate the impact of base reuse on regional road systems. This could be done by coordinating with and participating in the Ewa Highway Transportation Master Plan.

Response: The traffic analysis indicates that base reuse would not require mitigation of the Fort Barrette Road. This conclusion is based on the following assumptions:

a. Each of the reuse alternatives includes additional roadway connections between the roadways within the NAS Barbers Point and the planned future major roadways in the adjacent areas of the Ewa District. These include connections to the planned major North-South road facility as well as connections to Kalaeloa Boulevard, the planned City of Kapolei roadway network, and the planned Ewa Marina roadways.

b. Most of the new development areas are located in the eastern and western areas of the NAS Barbers Point. Most of the traffic from these areas would likely use roadway connections other than Fort Barrette Road.

c. There is little reuse planned in the Central Area located at the southern end of Barbers Point Access Road, and most of the planned reuse would not contribute to major increases in weekday peak hour traffic (relative to the No Action alternative).

d. The new roadway connections to NAS Barbers Point would likely attract use by a portion of the existing traffic that now uses Fort Barrette Road to travel to/from the Navy housing areas to the east and west of the Central Area.

The effect of the above assumptions is that traffic will increase approximately two to seven percent above the No Action alternative on Fort Barrette Road. Such increases do not require mitigation. These evaluations incorporate the anticipated effects of the proposed airport.

The traffic analysis conducted for this EIS will be forwarded to the Barbers Point Naval Air Station Redevelopment Commission, for future considerations by affected agencies and interested parties. In the future, the participating parties developing the Ewa Highway Transportation Master Plan should coordinate with the Commission to address regional road system issues.

Comment: We believe it is inaccurate to state that reuse would have no significant impact just because all alternatives use less water than would be expected from large tract land use on Oahu (page 4-80).

Response: This sentence will be changed to read as follows: "Since all of the proposed land use alternatives would require less water than that expected from similar-sized developments on Oahu (assuming single-family housing development, which requires the least amount of water per unit area), reuse would have no significant impact."

Comment: In the section on cumulative impacts (page 4-78), we believe that government must commit its fiscal resources if reuse is to proceed and that the significant adverse fiscal impacts would be more than offset by the benefits of the development. This is the basis for most land development whether conducted by government or by the private sector.

Response: The second paragraph in Section 4.6.4 will be revised as follows: "Recognizing the importance of government commitment of fiscal resource, significant adverse cumulative impacts on government fiscal resources could occur if government agencies commit to acting as the developer for the larger proposed project without private investment."

We received your letter of October 14, 1998, clarifying that AM/PM peak volumes were appropriately used to determine mitigative transportation measures rather than simply using ADTs. Your input in this process is appreciated.

5090P.1E10C
Ser 231/ 4517

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

THE GAS COMPANY 
Citizens Energy Services

September 10, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division
Naval Facilities Engineering Command
258 Makalapa Drive, Suite 100
Pearl Harbor, HI 96860-3134

Subject: Reuse of Naval Air Station Barbers Point

Dear Mr. Minato:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement for the Disposal and Reuse of Naval Air Station, Barbers Point, Hawaii. We do not currently have any utility gas lines within Barbers Point Naval Air Station. We look forward to working with you on developing a proposed gas utility distribution system for the area once a re-use alternative has been selected.

Our company has been purchased by Citizen's Utilities and is no longer affiliated with BHP. Future correspondence should be sent to our new mailing address below:

The Gas Company
P.O. Box 3000
Honolulu, Hawaii 96802-3000

If you have any questions or require additional information, please call me at (808) 594-5564.

Very truly yours,



Eric M. Kashiwamura, P.E.
Engineering Services



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 2317- 4511

21 DEC 1998

Mr. Eric M. Kashiwamura
Engineering Services
The Gas Company
P.O. Box 3000
Honolulu, HI 96802-3000

Dear Mr. Kashiwamura:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS), BARBERS POINT

Thank you for your letter of September 10, 1998, regarding the subject document. We acknowledge that The Gas Company currently does not have any utility gas lines within NAS Barbers Point and that you plan on participating with the development of a proposed gas utility distribution system for the area once a re-use alternative is selected. Please note that future communications concerning development of proposed gas utility distribution systems should be directed to the Barbers Point Naval Air Station Redevelopment Commission. The Executive Director of this commission is Mr. William M. Bass who can be reached at 674-3540.

Thank you for explaining that your company has been purchased by Citizen's Utilities and is no longer affiliated with BHP. We will use the above noted address to forward future information concerning the EIS to your attention.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

MARK J. TARONE

**270 MO'OMUKU PLACE
HONOLULU, HAWAI'I 96821
(808) 394-0980**

October 10, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division, Naval Facilities Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawai'i 96860-3134
(808) 471-9338
fminato@efdpac.navy.mil

Re: Transmittal Letter

Dear Mr. Minato,

Herewith is a copy of the letter that I faxed to you on October 10, 1998. This copy is identical to the letter that I faxed you. If you have any questions, please contact me at (808) 394-0980.

Sincerely,



Mark J. Tarone

MARK J. TARONE

**270 MO'OMUKU PLACE
HONOLULU, HAWAI'I 96821
(808) 394-0980**

October 10, 1998

Mr. Fred Minato (Code 231FM)
Pacific Division, Naval Facilities Command
258 Makalapa Drive, Suite 100
Pearl Harbor, Hawai'i 96860-3134
(808) 471-9338
fminato@efdpac.navy.mil

Re: Public Comment on the Draft Environmental Impact Statement (DEIS) for the Disposal and Reuse of Naval Air Station (NAS) Barbers Point, Hawai'i

Dear Mr. Minato,

My name is Mark Tarone. I write as a Hawai'i resident and a University of Hawaii William S. Richardson School of Law student who wishes to ensure that the Final Environmental Impact Statement (FEIS) for NAS Barbers Point complies with the National Environmental Policy Act (NEPA). I became familiar with the resources at NAS Barbers Point while conducting environmental assessments at NAS Barbers Point for Ogden Environmental and Energy Services, Co., Inc. in 1996 and 1997. After reviewing the DEIS and attending the public hearing on October 7, 1998 at Washington Intermediate School, I have concluded that the DEIS does not comply with NEPA for two reasons. First, the DEIS violates NEPA because the DEIS does not contain an evaluation of cumulative impacts on marine biota and coastal surface water quality. Second, the DEIS inadequately addresses many other impacts because the DEIS assumes that all future actions and uses will be undertaken in 100% compliance with all state and federal environmental regulations and does not qualify this assumption.

I. Assessment of Impacts on Marine Biota and Coastal Surface Water Quality

The DEIS does not analyze the cumulative impacts, on marine biota and coastal surface water quality, of past, present and reasonably foreseeable future actions in the Barbers Point watershed. Therefore, the DEIS does not comply with NEPA. Title 40, Section 1508.7 of the Code of Federal Regulations (40 CFR §1508.7) defines a cumulative impact as follows:

"Cumulative impact 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. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

The DEIS does not comply with NEPA because based on the text of the DEIS, cumulative impacts were not considered when evaluating the impacts of the Barbers Point action. Under 40 CFR §1508.25, in determining “the scope of environmental impact statements, agencies shall consider . . . (c) Impacts, which may be: (1) Direct; (2) indirect; (3) cumulative.” In the NAS Barbers Point DEIS’ evaluation of impacts on the marine biota and coastal water quality (Sections 4.2.2.3 and 4.1.3, respectively), the cumulative impacts of past, present and reasonably foreseeable future actions in the Barbers Point watershed are never mentioned. This failure to even state the words “cumulative impacts” strongly evinces that these impacts were never considered. Since non-consideration of cumulative impacts is a violation of NEPA under 40 CFR §1508.25, the instant DEIS with its overly narrow scope does not comply with NEPA.

Even if cumulative impacts were considered, the DEIS still violates NEPA because the DEIS does not contain a discussion of the cumulative impacts on marine biota and coastal surface water quality. Under 40 CFR §1502.16, a DEIS must have an environmental consequences section that “include[s] discussions of: . . . (b) Indirect effects and their significance(§1508.8)”. 40 CFR §1508.8 defines indirect effects as follows: “Effects and impacts as used in these regulation are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative.” Thus, when indirect cumulative effects exist, they must be included in a DEIS. In the NAS Barbers Point DEIS, the cumulative effects of past, present, and reasonably foreseeable future actions on marine biota and coastal surface water quality not only exist, but are also undoubtedly substantial. Marine biota and coastal surface water quality are obviously affected by activities in the entire watershed and activities in the watershed are obviously of sufficient intensity to substantially impact the marine biota and coastal surface water quality. This substantiality is proven by the instant DEIS’ stating that actions on NAS Barbers Point alone will significantly increase surface water runoff.¹ Surely if increases in runoff from this area alone are significant, the cumulative effects on surface water runoff from past, present and reasonably foreseeable future actions in the entire watershed are significant. Therefore, under 40 CFR §1508.8, cumulative impacts on marine biota and coastal surface water quality must be included in the NAS Barbers Point DEIS. Since the instant DEIS includes no discussion of these impacts, the DEIS violates NEPA.

The DEIS’ failure to consider cumulative impacts and its lacking a discussion of cumulative impacts are violations of NEPA not only because these omissions violate the specific federal regulations noted above, but also because these omissions violate the fundamental goal of NEPA as set forth in the text of the Act itself. NEPA’s fundamental goal, based on the text of the Act, is to promote efficient management of our nation’s natural resources.² Therefore, under

¹ “Draft Environmental Impact Statement, Disposal and Reuse of NAS Barbers Point”, Department of the Navy, August 1998 at 4-57.

² Section 101(a) of NEPA states: “The Congress . . . declares that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technological assistance, in a manner calculated to foster and promote the general welfare, to

NEPA, the instant EIS must promote efficient management of marine biota and coastal surface water quality in the Barbers Point area. Since these resources are greatly affected by actions throughout the watershed, the only way to efficiently manage these two resources is by evaluating the cumulative impacts of actions throughout the watershed. Thus, based on NEPA's fundamental goal of efficient resource management, the instant DEIS must consider the cumulative impacts on marine biota and coastal surface water quality. Since the DEIS does not consider these impacts, it violates NEPA.

Finally, compliance with NEPA is critical in regards to Barbers Point marine biota and coastal surface water quality because these resources are perhaps the area's most valuable resources. The gentle waves that break off of NAS Barbers Point currently attract a substantial number of beginner surfers throughout the year. In addition, after surplus lands are released by the Navy, and public access is subsequently expanded, this surf will be utilized by a much greater number of people. Finally, since the surf at NAS Barbers Point is almost always gentle, the waters also provide beach goers with excellent swimming and general recreational opportunities. If these waters are polluted by various point and non-point sources in the watershed, the resources' value will decrease dramatically. Therefore, it is imperative that the DEIS evaluations of marine biota and coastal surface water quality comply with NEPA.

II. Assumption of 100% State and Federal Environmental Compliance

The DEIS assumes that all future actions and uses will be undertaken in 100% compliance with all state and federal environmental regulations, and the DEIS does not qualify this statement in any way. Basing impact assessments on such an assumption violates NEPA.

NEPA's primary mechanism for achieving its goals is public disclosure of information.³ NEPA's disclosure requirement mandates that the NAS Barbers Point FEIS qualify its 100% compliance assumption by including information about documented violations of relevant environmental regulations. Such disclosure is also mandated by the Code of Federal Regulations. 40 CFR 1502.1 states: "It [an EIS] shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would enhance the quality of the human environment." A "full and fair discussion of significant environmental impacts" has generally been interpreted as meaning a reasonable discussion of significant environmental impacts. For example, in Trout Unlimited v. Morton,⁴ the Ninth Circuit Court of Appeals held that an EIS must contain a "reasonably thorough discussion of the significant aspects of the probable environmental consequences"⁵.

create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic and other requirements of present and future generations of Americans." Public Law 91-190 (1970).

³ 42 U.S.C.A. §4321 et seq.

⁴ Trout Unlimited v. Morton, 509 F.2d 1276 (9th Circ. 1974).

⁵ Id. at 1283.

Even under this lenient reasonableness standard, the 100% compliance assumption of the instant DEIS violates NEPA. Assuming that all actions and uses will comply 100% with all state and federal environmental regulations is not reasonable. Undoubtedly, 100% compliance is extremely improbable. Such an unreasonable assumption is a serious violation of NEPA if the assumption is not qualified. The assumption would, however, comply with NEPA if the DEIS, after making an assumption that a specific regulation would be complied with in full, listed the number and severity of violations of that regulation in the relevant state or county. This list would only need to include violations that have been documented by the appropriate regulator and also would only need to include violations that occurred in the recent past, perhaps the last five years.

An EIS should still be permitted to base its impact assessments on a 100% compliance assumption, but only if that assumption is qualified by including violation information in the EIS. NEPA requires this qualification because: 1) a 100% assumption is not reasonable, 2) attaining lists of violations from appropriate regulators is not unduly burdensome, and most importantly, 3) these lists will allow decisionmakers and the public to assess with much greater accuracy the probable environmental impacts of an action. Disclosure of such information is consistent with 40 CFR 1502.22(b)(3) which requires an EIS to include a summary of existing credible scientific information whenever an EIS evaluates an impact for which there is incomplete or unavailable information. An impact assessment based on a 100% compliance assumption is quite similar to an impact for which there is incomplete or unavailable information, and documented violations are analogous to existing credible scientific information. In addition, disclosure of violation information is consistent with NEPA's fundamental goal of promoting efficient resource management through public disclosure. Thus, if the NAS Barbers Point FEIS does not qualify its 100% compliance assumption with violation information, the FEIS will violate NEPA.

Thank you for the opportunity to submit written testimony. If you have any questions or would like to discuss any of the issues raised in this letter, please contact me at 394-0980, tarone@hawaii.edu or at the address listed at the beginning of this letter.

Sincerely,



Mark J. Tarone



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 23L.

4524

21 DEC 1998

Mr. Mark J. Tarone
270 Moomuku Place
Honolulu, HI 96821

Dear Mr. Tarone:

Subj: DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) FOR THE
DISPOSAL AND REUSE OF NAVAL AIR STATION (NAS) BARBERS POINT

Thank you for your letter of October 10, 1998 regarding the subject document. Your letter stated that the Draft EIS violates National Environmental Policy Act (NEPA) because (1) "the Draft EIS does not contain an evaluation of cumulative impacts on marine biota and coastal surface water quality" and (2) "the Draft EIS assumes that all future actions and uses will be undertaken in 100% compliance with all state and federal environmental regulations and does not qualify this assumption." Our responses to your comments are as follow:

The cumulative impacts on marine biota and coastal surface water quality are not anticipated to be significant. To clarify this statement, Section 4.2.3, Cumulative Impacts (for biological resources), will be revised to add the following text: *No significant cumulative impacts are anticipated because of regulatory requirements designed to control storm water runoff and protect water quality. These include various requirements of the Clean Water Act, including National Pollutant Discharge Elimination System permits and Best Management Practices (see section 5.6.2).*

In addition, a new section will be added to clarify cumulative impacts on surface water quality. The new text will read as follows:

4.1.3.3 *Cumulative Impacts*

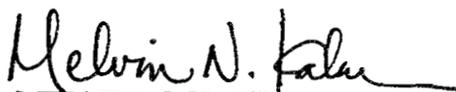
Significant cumulative impacts on surface water could occur from regional drainage. This issue is an unresolved issue identified in Section 4.7.4 Drainage, and must be resolved by the Local Redevelopment Authority and affected parties. All activities would have to conform with applicable federal and state laws and regulations.

The EIS evaluates the potential environmental impacts based on reasonable assumptions. In this case, the reasonable assumption is that existing regulatory requirements will be followed. To include a worst-case analysis that assumes regulatory requirements are not followed, or that some subjective portion of the regulatory requirements is not followed, would result in an encyclopedic document that is not required and should be avoided for NEPA purposes. Furthermore, it is difficult to understand how the findings of such analyses would serve to further protect the environment at this land use planning stage.

5090P.1F10C
Ser 2317- 4524

Should you have any questions, please contact the undersigned at 471-9338 or by facsimile transmission at 474-5909. You may also direct your questions to Mr. Randy Hoffman, Base Conversion Manager at 474-5949.

Sincerely,


MELVIN N. KAKU
Director
Environmental Planning Division

Copy to:
Ms. Lesley Matsumoto
Belt Collins Hawaii
680 Ala Moana Boulevard, First Floor
Honolulu, HI 96813-5406

Appendix A-7

CZM LETTERS



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5090P.1F10C
Ser 231/3532

25 SEP 1998

Mr. Douglas Tom
Attn: CZM Office
Office of Planning
P.O. Box 2359
Honolulu, HI 96804

Dear Mr. Tom:

Subj: FEDERAL CONSISTENCY WITH STATE OF HAWAII COASTAL ZONE
MANAGEMENT PROGRAM

In accordance with the Federal Coastal Zone Management Act, we request your review and concurrence on our consistency determination for the proposed disposal and reuse of Naval Air Station (NAS), Barbers Point, Hawaii. Detailed information about the proposed reuse is contained in the Draft Environmental Impact Statement (DEIS) for the Disposal and Reuse of NAS Barbers Point, Hawaii, which is forwarded for your reference as enclosure (1). A separate copy of the DEIS has also been mailed to your office under separate cover for review under the National Environmental Policy Act.

In addition to this correspondence with your office, we have also initiated consultation proceedings with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and State Historic Preservation Office, whose areas of concern also include resources in the coastal zone, which may be affected by the proposed action.

The proposed action was assessed and found to be consistent with the State of Hawaii Coastal Zone Management Program to the maximum extent practicable.

We appreciate your earliest consideration of the Navy's determination. Should you have any questions, point of contact is Mr. Fred Minato (Code 231FM) at 471-9338 or by facsimile transmission at 474-5909.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

Encl: (See next page)

5090P.1F10C
Ser 231/ 3532

Encl:

(1) DEIS for the Disposal and Reuse of
NAS Barbers Point, Hawaii of August 1998

Blind copy to: (w/o encl)

Ms. Lesley Matsumoto

Belt Collins Hawaii

680 Ala Moana Boulevard, First Floor

Honolulu, HI 96813-5406





**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

BENJAMIN J. CAYetano
GOVERNOR
SELI F. HAYA
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

OFFICE OF PLANNING

235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel.: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-7855

December 18, 1998

Mr. Melvin N. Kaku
Director
Environmental Planning Division
Department of the Navy
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Dear Mr. Kaku:

**Subject: Hawaii Coastal Zone Management (CZM) Program Federal Consistency
Review for the Disposal and Reuse of Naval Air Station Barbers Point, Oahu**

The Navy's proposed disposal of 2,100 acres of Navy properties at Naval Air Station Barbers Point declared surplus by the base closure, for subsequent reuse and redevelopment, has been reviewed for consistency with Hawaii's CZM Program. We concur with your determination that the activity is consistent to the maximum extent practicable based on the following conditions.

1. It is our understanding that the mitigation measures proposed in Chapter 4 of the Draft Environmental Impact Statement (EIS) to minimize the identified impacts will be implemented.
2. The EIS section on sensitive habitats (Sec. 4.2.2.4, p. 4-58) states that impacts to the seasonal wetland would include destruction of the wetland and possible introduction of pollutants and silt due to runoff from construction activities and new developments. According to the EIS, "impacts could be avoided by establishing buffer zones around the wetlands and by preventing development in wetlands." It is our understanding that mitigation measures would be developed in consultation with the U.S. Fish and Wildlife Service.
3. As indicated in the EIS (p. 4-59), consultation initiated with the Department of Land and Natural Resources, Historic Preservation Division under Section 106 of the National Historic Preservation Act, will be completed.

Mr. Melvin N. Kaku
Page 2
December 18, 1998

This CZM consistency concurrence does not convey approval with any other regulations administered by any State or County agency. Thank you for your cooperation in complying with Hawaii's CZM Program. If you have any questions, please call John Nakagawa of our CZM Program at 587-2878.

Sincerely,



Bradley J. Mossman
Director
Office of Planning

cc: U.S. Fish and Wildlife Service, Pacific Islands Ecoregion
Department of Land & Natural Resources,
Planning & Technical Services Branch
Department of Land Utilization, City & County of Honolulu

Appendix A-8

SECTION 7 LETTERS



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

11015.4A8B
Ser 232/ 3397

16 SEP 1998

Mr. Eugene T. Nitta
National Marine Fisheries Service
U.S. Department of Commerce
2570 Dole Street, Room 106
Honolulu, HI 96822

Dear Mr. Nitta:

**Subj: SECTION 7 CONSULTATION FOR TRANSFER OF SURPLUS PROPERTY
AT NAVAL AIR STATION (NAS), BARBERS POINT, HAWAII**

The Navy is writing to consult on the proposed conveyance of approximately 2,100 acres of surplus Naval property to the State of Hawaii for redevelopment, after the closure of NAS Barbers Point on July 2, 1999. The site is in the Ewa section of the island of Oahu. The federally listed green turtles are known to frequent the areas offshore but the beaches are not known to be turtle nesting habitats. More detailed information concerning the proposed disposal and reuse of surplus property is contained in enclosure (1) and is forwarded for your reference. Separate copies of the enclosure (1) have also been mailed to your office under separate cover for review under the National Environmental Policy Act.

The conveyance of Federal property from one federal agency to another or to the State of Hawaii, in itself, would not have an impact on threatened or endangered species. The conveyance documents will include a statement reminding the recipients of surplus properties that Federal or State consultation is required for any action that has the potential to impact federally or state listed species.

We would appreciate your concurrence that the transfer of surplus Navy property would not have an impact on species under your purview. We want to thank you in advance for expediting the review action for this Section 7 consult. Should you have any questions, the points of contact are Mr. Tim Sutterfield (Code 232TS) for biology matters and Mr. Fred Minato (Code 231FM) for the proposed action at 471-9338 or by facsimile transmission at 474-5909.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

11015.4A8B
Ser 232/ 3397

Encl:

- (1) Draft Environmental Impact Statement for
the Disposal and Reuse of NAS Barbers
Point, Hawaii of August 1998



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213
PACIFIC ISLANDS AREA OFFICE
2570 DOLE STREET
HONOLULU, HAWAII 96822-2396

November 25, 1998

Mr. Melvin Kaku
Director
Environmental Planning Division
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

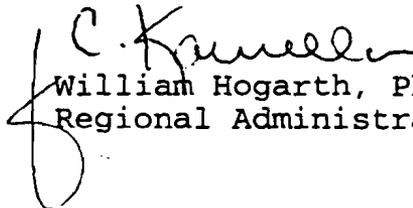
Dear Mr. Kaku:

Thank you for your letter regarding the proposed transfer of surplus property at Naval Air Station (NAS), Barbers Point, Hawaii. Of approximately 3,722 acres at NAS Barbers Point, 2,100 acres are proposed for conveyance to other federal, state, and local agencies after the closure of the NAS on July 2, 1999. I concur that this action is not likely to adversely affect listed species or critical habitat under the jurisdiction of the National Marine Fisheries Service, provided that any changes or improvements associated with the conveyance that increase potential storm water runoff over existing conditions, undergoes Section 7 evaluation at the appropriate time.

This concludes the informal Section 7 consultation process for this proposed action. Consultation must be reinitiated if new information becomes available revealing effects of the action on listed species that were not previously considered, the action is subsequently modified in manner that causes an effect to listed species that was not considered, or if a new species or critical habitat is designated that may be affected by the action.

Please contact Mr. Eugene Nitta at (808) 973-2987 if you have any questions regarding this consultation.

Sincerely,


William Hogarth, Ph.D.
Regional Administrator

cc: F/SWRx1 - Nitta





DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

11015.4A8B
Ser 232/ 3398
16 SEP 1998

Mr. Robert Smith, Ecoregion Manager
U.S. Fish and Wildlife Service
Pacific Islands Office Ecological Services
P.O. Box 50167
Honolulu, HI 96850

Dear Mr. Smith:

Subj: SECTION 7 CONSULTATION FOR TRANSFER OF SURPLUS PROPERTY
AT NAVAL AIR STATION (NAS), BARBERS POINT, HAWAII

The Navy is writing to consult on the proposed conveyance of approximately 2,100 acres of surplus Naval property to the State of Hawaii for redevelopment, after the closure of NAS Barbers Point on July 2, 1999. The site is in the Ewa section of the island of Oahu. Two federally listed endangered plant species and one plant species of concern exist at the site, at least one federally listed endangered water bird frequents the site, and a federally listed bird species of concern may occur or range over the site. More detailed information concerning the proposed disposal and reuse of surplus property is contained in enclosure (1) and is forwarded for your reference. Separate copies of enclosure (1) have also been mailed to your office under separate cover for review under the National Environmental Policy Act.

The conveyance of Federal property from one federal agency to another or to the State of Hawaii, in itself, would not have an impact on threatened or endangered species. The conveyance documents will include a statement reminding the recipients of surplus properties that Federal or State consultation is required for any action that has the potential to impact federally or state listed species.

We would appreciate your concurrence that the transfer of Navy property would not have an impact on species under your purview. We want to thank you in advance for expediting the review action for this Section 7 consult. Should you have any questions, the points of contact are Mr. Tim Sutterfield (Code 232TS) for biology matters and Mr. Fred Minato (Code 231FM) for the proposed action at 471-9338 or by facsimile transmission at 474-5909.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

11015.4A8B
Ser 232/ 3398

Encl:

- (1) Draft Environmental Impact Statement for
the Disposal and Reuse of NAS Barbers
Point, Hawaii of August 1998



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer To: CMC

NOV - 3 1998

Melvin Kaku
Environmental Planning Division
Department of the Navy
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860

Re: Section 7 Consultation for Transfer of Surplus Property at Naval Air Station (NAS) Barbers Point, Hawaii.

Dear Mr. Kaku:

The U.S. Fish and Wildlife Service (Service) has received your September 16, 1998, letter requesting our concurrence under section 7 of the U.S. Endangered Species Act (Act) that the proposed conveyance of approximately 2100 acres of surplus Naval property to the State of Hawaii for redevelopment following the closure of NAS Barbers Point on July 2, 1999, is not likely to adversely affect endangered and threatened species. At issue are the possible effects of the Navy's activities on two federally endangered plants, *Chamaesyce skottsbergii* var. *skottsbergii* (akoko) and *Achyranthes splendens* var. *rotundata* (no common name), and the endangered Hawaiian black-necked stilt (*Himantopus mexicanus knudseni*). The plant species of concern, *Capparis sandwichiana* (maiapilo), also occurs on the project site. We have reviewed the information provided in the Draft Environmental Impact Statement (DEIS) for the Disposal and Reuse of Naval Air Station Barbers Point Hawaii, as well as information contained in our files and offer the following comments.

According to the State and Navy preferred alternative, all sites supporting *Achyranthes splendens* var. *rotundata*, *Capparis sandwichiana*, and the Hawaiian black-necked stilt will be transferred to the Service following closure. Thus, the Service concurs that the transfer of surplus Naval property to the State of Hawaii for redevelopment is not likely to adversely effect these species.

However, according to our information, there are eight individuals of *Chamaesyce skottsbergii* var. *skottsbergii* on parcels that will be used by the State of Hawaii for residential, light industrial, recreational, or commercial use. Without adequate protection of these plants, we believe that such land uses may adversely effect *Chamaesyce skottsbergii* var. *skottsbergii*, and recommend that the Navy undergo formal consultation under section 7 of the Endangered Species Act.

We are confident that our concerns can be adequately and quickly addressed by incorporating measures to protect this species into the project design. We look forward to working with the Navy as soon as possible in order to determine mutually agreeable solutions prior to initiation of formal consultation. Such prior agreements will expedite the formal consultation process.

In accordance with 50 CFR 402.14, upon initiation of formal consultation, the Navy should allow up to 90 days for the Service to conclude formal consultation and an additional 45 days for preparation of the biological opinion (unless we mutually agree to an extension).

As a reminder, the Act requires that after initiation of formal consultation, the Federal action agency make no irreversible or irretrievable commitment of resources that limits future options. This practice insures that agency actions do not preclude the formulation or implementation of reasonable and prudent alternatives that avoid jeopardizing the continued existence of endangered or threatened species or destroying or modifying their critical habitats.

If you have questions or comments, please contact Assistant Field Supervisor Karen Rosa or Fish and Wildlife Biologist Kevin Foster at (808) 541-3441; fax: 541-3470.

Sincerely,



Robert P. Smith
Pacific Islands Manager



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 9 860-7300

110154A8B
Ser 232/ 4217
24 NOV 1998

Mr. Robert Smith
Pacific Islands Ecoregion Manager
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, HI 96850

Dear Mr. Smith:

Subj: SECTION 7 CONSULTATION FOR THE TRANSFER OF SURPLUS
PROPERTY AT NAVAL AIR STATION, BARBERS POINT, HAWAII

Thank you for your letter of November 3, 1998, regarding the above referenced Section 7 Consultation. We appreciate your concurrence that the proposed action is not likely to adversely affect *Achyranthes splendens* var. *rotunda*, *Capparis sandwichiana*, or the Hawaiian black-necked stilt, *Himantopus mexicanus knudseni*.

With respect to the eight akoko plants, *Chamaesyce skottsbergii* var. *skottsbergii*, that are located outside of property which is scheduled to be transferred to the U.S. Fish and Wildlife Service (USFWS), you have requested that the Navy undergo formal consultation. We believe that formal consultation is not required. We have reached this conclusion for a number of reasons, including, but not limited to the following:

- a. The parcels located outside the proposed USFWS boundaries, which are believed to contain akoko plants, are scheduled to be transferred to the Department of Hawaiian Homelands and the City and County of Honolulu.
- b. The Navy will transfer each of the subject parcels to the U.S. Department of Interior (DOI).
- c. The U.S. DOI will then convey the parcels, designated for the Department of Hawaiian Homelands, utilizing the Hawaiian Homelands Recovery Act.
- d. Lands scheduled for conveyance to the City and County of Honolulu will be transferred to the National Park Service (NPS), under a public benefit conveyance. The NPS will then deed the property to the City and County of Honolulu.
- e. Each of the conveyances from the U.S. DOI will contain a restrictive covenant with the following wording:

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Ser 232 4217

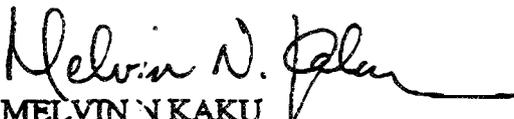
"Recipient is advised that the subject property contains one or more individuals of the endangered akoko plant (*Chamaesyce skottsbergii* var. *skottsbergii*), and that additional specimens may be discovered in the future. Recipient agrees to abide by all federal and state guidelines, relative to the protection of endangered plants. Furthermore, recipient agrees to consult with the U.S. Fish and Wildlife Service, prior to taking any action on the subject property, which might impact the akoko plants."

As outlined above, the proposed action involves the transfer of Navy land to the U.S. DOI. U.S. DOI will then transfer the land to state and local agencies. Each entity acquiring this property must comply with the same guidelines applicable to the Navy, regarding the protection of threatened and endangered species. This fact, coupled with the inclusion of restrictive covenants, will clearly afford the akoko plants a degree of protection equal to, or greater, than what they now enjoy.

We believe that the act of transferring the subject property will not result in any impact to the akoko plants. Therefore, a formal Section 7 Consultation is not required. We ask that you concur with this finding.

Should you have any questions, please contact Mr. Stephen Smith (Code 232SS) at 471-9338 or by facsimile transmission at 474-5909.

Sincerely,



MELVIN N KAKU

Director

Environmental Planning Division



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

DEC - 1 1998

In Reply Refer To: KWR

Melvin N. Kaku
Director, Environmental Planning Division
Department of the Navy
Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

Re: Section 7 Consultation for Transfer of Surplus Property at Naval Air Station, Barbers Point, Hawaii

Dear Mr. Kaku:

This responds to your November 24, 1998, letter in which you provided additional information on the proposed transfer of surplus property at Naval Air Station, Barbers Point, Hawaii, and requested our concurrence that the proposed transfer is not likely to adversely affect the federally endangered plant species *Chamaesyce skottsbergii* var. *skottsbergii* (akoko). Based upon the Navy's assurance that each of the land conveyances will be made through the U.S. Department of the Interior (DOI), we will concur that the Navy's action is not likely to adversely affect *Chamaesyce skottsbergii* var. *skottsbergii*, provided the U.S. Navy informs the appropriate bureau within the U.S. DOI of its responsibilities to consult under section 7 of the U.S. Endangered Species Act of 1973, as amended (Act), on the potential effects of the land transfer to the State of Hawaii and City and County of Honolulu on *Chamaesyce skottsbergii* var. *skottsbergii*.

We continue to believe that the proposed residential, light industrial, recreational, or commercial uses of the lands in the future may adversely affect *Chamaesyce skottsbergii* var. *skottsbergii*. We, therefore, recommend that prior to the conveyance of the lands from the U.S. DOI to the State of Hawaii and to the City and County of Honolulu the appropriate bureau within the U.S. DOI initiate formal consultation with the U.S. Fish and Wildlife Service (Service) under section 7 of the Act.

Provided the Navy informs the appropriate agency within the U.S. DOI of its responsibilities under section 7 of the Act for *Chamaesyce skottsbergii* var. *skottsbergii* as described above, we concur with your determination that the Navy's conveyance of surplus lands at Barbers Point to the U.S. DOI is not likely to adversely affect *Chamaesyce skottsbergii* var. *skottsbergii* and that the requirements of section 7 of the Act have been satisfied. However, the Navy's obligations under section 7 of the Act must be reconsidered if (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously

considered, (2) this action is subsequently modified in a manner that was not considered in this assessment, or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

If you have any questions, please contact Assistant Field Supervisor Karen Rosa (phone: 808/541-3441; fax: 808/541-3470).

Sincerely,

A handwritten signature in black ink, appearing to read "Robert P. Smith". The signature is fluid and cursive, with a large initial "R" and a long, sweeping underline.

Robert P. Smith
Pacific Islands Manager

Appendix A-9

SECTION 106 LETTERS



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5750.2B
Ser 233/ **3957**

27 OCT 1998

Mr. Michael D. Wilson
State Historic Preservation Officer
Department of Land and Natural Resources
33 South King Street, Sixth Floor
Honolulu, HI 96813

Dear Mr. Wilson:

As you are already aware, the Department of the Navy (Navy) proposes to close Naval Air Station (NAS), Barbers Point in accordance with the 1993 Base Realignment and Closure Act process. Of the total 3,722 acres at NAS Barbers Point, the Navy will retain about 1,130 acres and 492 acres will be transferred to other federal agencies. The remaining 2,100 acres have been declared surplus lands and will be disposed by various conveyance authorities for reuse and redevelopment as follows (enclosure (1)):

a. A portion of these surplus lands will be conveyed through the federal General Services Administration (GSA) to the Department of Hawaiian Homes Lands (DHHL) under the Hawaiian Homes Recovery Act.

b. Direct transfer of approximately 690 acres from the Navy to the State Department of Transportation (DOT) for general aviation.

c. Public benefit conveyance of approximately 680 acres through the National Park Service to the State Department of Land and Natural Resources and the City and County of Honolulu (Department of Parks and Recreation Services) for parks and recreation.

d. Public benefit conveyance for education through the federal Department of Education (DOE) of approximately five acres to Honolulu Community College and about 20 acres to the State DOE.

e. Public benefit conveyance of approximately 30 acres through the federal Department of Health and Human Services to the City and County of Honolulu Board of Water Supply (BWS) for public health.

f. Direct transfer of 13 acres to the State Hawaii Housing Authority (HHA) for the homeless.

The proposed redevelopment of the surplus lands is documented in the reports *Naval Air Station Barbers Point, Community Redevelopment Plan* and *Naval Air Station Barbers Point, Community Redevelopment Plan, Amendment 1* that were approved by the Governor and the Barbers Point Naval Air Station Redevelopment Commission. This plan is referred to as the State-preferred alternative that is analyzed in enclosure (2) and is the proposed undertaking under Section 106 review. Please note the errata sheet on the inside cover page of Draft

Environmental Impact Statement (DEIS) (enclosure (2)), these errors will be corrected in the Final Environmental Impact Statement (FEIS). Excluded from the Navy's Section 106 consultation are those lands to be transferred to federal agencies since those properties will remain under federal control, and the transfer of lands by GSA to DHHL. In the latter case, it is our understanding that compliance with Section 106 of the National Historic Preservation Act (NHPA) will be handled separately. The receiving federal agencies have been provided information on historic properties, if any, located within their respective lands and will be notified of their responsibilities under the NHPA.

The Navy has completed archaeological and architectural inventory surveys of NAS Barbers Point. The final Phase I and Phase II inventory survey reports (Tuggle and Tomonari-Tuggle 1997a; and Wickler and Tuggle 1997) presenting our findings and significance evaluation have been forwarded to your office. A draft copy of the O'Hare et al. (1996) Phase II inventory survey was also provided for your review. This report is undergoing revision and a final copy will be forwarded when available. Photodocumentation, in accordance with the specifications and standards of the Historic American Buildings Survey, has been completed for Category I and II buildings and structures. A complete set of photodocumentation will be forwarded to your office under separate cover.

Figure ES-1 and Chapter Two of enclosure (2) present the details of the proposed reuse and redevelopment. Chapter 3, section 3.3 of enclosure (2) provides a summary of archaeological sites and historic structures that has been determined National Register eligible and are located on surplus lands. Chapter 4, section 4.3, and Tables 4.3-1 and 4.3-2 present a comparison of the different alternative redevelopment with the affected archaeological sites and historic structures. Again, please note the errata sheet on the inside cover page of the DEIS; these errors will be corrected in the FEIS. The above studies identified no historic properties in any of the parcels to be transferred to HHA (13 acres containing only modern buildings), BWS, and State DOE (20 acres of existing school).

The Navy neither has an approval authority over the community development plan nor has an involvement in its future implementation. Therefore, only the Navy's disposal action is subject to this consultation. Informal consultation with Dr. Don Hibbard of your office was carried out in applying the Criteria of Effect (§800.9(a)). It was agreed in the informal consultation that the effect of the proposed disposal is considered as not adverse (§800.9(c)(3)) based on the following:

a. The Navy will ensure that the direct transfer of surplus lands to the State DOT includes a protective covenant (enclosure (3)) to ensure the preservation and appropriate treatment of historic properties.

b. The Navy will provide protective covenants to the sponsoring federal agencies for inclusion in the deeds transferring surplus lands under public benefit conveyances

(enclosures (4a) and (4b) for parks and recreation and enclosure (4c) for education) to ensure the preservation and appropriate treatment of historic properties.

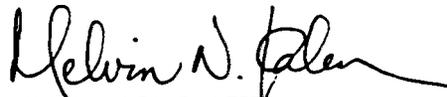
c. Implementation of the community redevelopment plan will be in compliance with the State of Hawaii's historic preservation law (Chapter 6E, H.R.S.). The SHPO, as the State Historic Preservation Division, is the regulatory agency under Chapter 6E. The Hawaii's historic preservation review process is patterned after, but more stringent than, the Section 106 review.

d. SHPO should contact and involve interested Native Hawaiian organizations in the management and stewardship of Hawaiian archaeological sites in the proposed Heritage Park.

In accordance with 36 CFR§800.5(d), we are seeking your concurrence with our finding of "no adverse effect."

Should you have any questions regarding these matters, please contact Ms. Elizabeth Gordon or Annie Griffin, Archaeologists at 471-9338 or by facsimile transmission at 474-5909.

Sincerely,



MELVIN N. KAKU

Director

Environmental Planning Division

Encl:

- (1) Disposal and Reuse Plan, Real Estate
Drawing RE 98-003
- (2) DEIS for the Disposal and Reuse of
Naval Air Station, Barbers Point,
Hawaii of August 1998
- (3) Historic Preservation Covenant to
State DOT
- (4) Historic Preservation Covenant Under
Public Benefit Conveyances

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhikawa Building, Room 225
801 Kamehale Boulevard
Kapolei, Hawaii 96707

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
ELBERT COLLEMA-AGARAN
TIMOTHY E. JOHNS

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
WATER RESOURCE MANAGEMENT

REF:HP-JK

Mr. Dennis Pacht, Acting Director
Environmental Planning Division
Department of the Navy, Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860-7300

LOG NO: 22424 ✓
DOC NO: 9812SC15

Dear Mr. Pacht:

**SUBJECT: National Historic Preservation Act, Section 106 Compliance - Historic Preservation Covenant to Be Included in the Deed of Conveyance of Real Property at Barbers Point Naval Air Station
Barbers Point, Ewa, O'ahu**

Thank you for the opportunity to comment on the proposed historic preservation covenant to be attached to the deed of conveyance in the transfer of real property at Barbers Point Naval Air Station to the National Park Service or its designee. We apologize for our late response to you; our office's recent move to Kapolei caused a temporary suspension of correspondence. We regret any inconvenience to you caused by this unavoidable delay.

According to Attachment I of Enclosure 4b (Historic Preservation Covenant) 14 significant historic sites are known to be present in the two parcels: SIHP Nos. 50-80-12-1731 through 1737 lie within proposed Reuse Parcel P; SIHP Nos. 50-80-12-1752, -1753, -5114 through -5117, and -5130 lie within proposed Reuse Parcel R. All of the sites, excepting SIHP No. -5130, are recommended for preservation. SIHP No. -5130 is recommended to undergo data recovery; it will be preserved in place until such time as data recovery will occur.

In view of these facts, we concur with your determination that implementation of the Historic Preservation Covenant, as written, will result in "no adverse effect" to the significant historic sites known to be present in the parcels subject to conveyance.

Should you have any questions, please feel free to call Sara Collins at 692-8026.

Aloha,

Michael D. Wilson
Michael D. Wilson, Chairperson and
State Historic Preservation Officer

SC:jk

c: Mr. Bill Bass, Executive Director, Barbers Point Naval Air Station Redevelopment Commission, Campbell Square, 1001 Kamokila Boulevard, Suite 308, Kapolei, HI 96707
Mr. Gary Munsterman, Program Coordinator, Federal Lands to Parks, National Park Service, 600 Harrison Street, Suite 600, San Francisco, CA 94107



DEPARTMENT OF THE NAVY
PACIFIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
(MAKALAPA, HI)
PEARL HARBOR, HAWAII 96860-7300

5750.2B
Ser 2337 4541

21 DEC 1998

CERTIFIED MAIL

Ms. Cornelia Keatinge
Historic Preservation Specialist
Advisory Council on Historic Preservation
12136 West Bayaud Avenue, Suite 330
Lakewood, CO 80226

Dear Ms. Keatinge:

As you are already aware, the Department of the Navy (Navy) proposes to close Naval Air Station (NAS), Barbers Point in accordance with the 1993 Base Realignment and Closure Act process. Of the total 3,722 acres at NAS Barbers Point, the Navy will retain about 1,130 acres and 492 acres will be transferred to other federal agencies. The remaining 2,100 acres have been declared surplus lands and will be disposed by various conveyance authorities for reuse and redevelopment (enclosure (1)).

The proposed redevelopment of the surplus lands is documented in the reports NAS Barbers Point, Community Redevelopment Plan and NAS Barbers Point, Community Redevelopment Plan, Amendment 1 that were approved by the Governor and the Barbers Point Naval Air Station Redevelopment Commission. The Navy neither has an approval authority over the community development plan nor has an involvement in its future implementation. Therefore, it is only the Navy's disposal action that is the proposed undertaking under Section 106 review.

In accordance with 36 CFR§800 of the National Historic Preservation Act of 1966 as amended, we believe that the effect of the proposed disposal of surplus lands at NAS Barbers Point can be considered as not adverse (§800.9(c)(3)) based on the following:

a. The preservation and appropriate treatment of those historic properties affected by the proposed reuse will be ensured by protective covenants (enclosure (2)), that will be included in the deeds transferring surplus lands.

b. Implementation of the community redevelopment plan will be in compliance with the State of Hawaii's historic preservation law (Chapter 6E, H.R.S.). The Hawaii State Historic Preservation Officer (SHPO), as the State Historic Preservation Division, is the regulatory agency under Chapter 6E. The Hawaii's historic preservation review process is patterned after, but more stringent than, the Section 106 review.

Five public archaeological informational tours of NAS Barbers Point were conducted January 1995 through April 1996 as part of the Navy's Section 106 consultation for the proposed disposal of NAS Barbers Point. Representatives from Native Hawaiian organizations (Ahahui Siwila Hawaii O Kapolei, Friends for Ewa, Friends of Kukaniloko, Ka Lahui Hawaii, Kualakai Ohana, Native Hawaiian Historic Preservation Council, and Office of Hawaiian Affairs) were

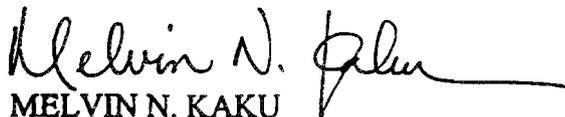
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among the attendees of these tours. The Navy received no comments from these organizations on the transfer of lands as it affects Native Hawaiian cultural sites.

Enclosure (3) is a copy of the Navy's Section 106 consultation with the SHPO. Enclosure (4) is a copy of the SHPO letter concurring with our "no adverse effect" determination. In accordance with 36 CFR§800.5(d), we are submitting the summary documentation to you for comment.

Should you have any questions regarding these matters, please contact Ms. Elizabeth Gordon, PACNAVFACENGCOM Archaeologist (Code 233EG)) at (808) 471-9338 or by facsimile transmission at (808) 474-5909.

Sincerely,


MELVIN N. KAKU

Director
Environmental Planning Division

Encl:

- (1) Disposal and Reuse Plan, Real Estate
Drawing RE 98-003
- (2) Historic Preservation Covenants
- (3) PACNAVFACENGCOM Consultation
Letter
- (4) SHPO Review Letter

Advisory Council On Historic Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #809
Washington, DC 20004

Reply to: 12136 West Bayaud Avenue, #330
Lakewood, Colorado 80226

January 11, 1999

Melvin N. Kaku, Director
Environmental Planning Division
Department of the Navy, Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, HI 96860-7300

REF: *Proposed transfers at Naval Air Station, Barbers Point, HI*

Dear Mr. Kaku:

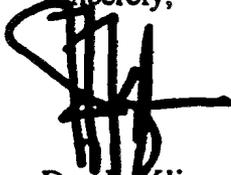
We have reviewed the documentation regarding the Navy's determination that the proposed transfer of lands at the Naval Air Station (NAS) Barbers Point, Hawaii will not adversely affect historic properties. This determination is based on the Exception to the Criteria of Adverse Effect set out at 36 CFR §800.9(c)(3) based on the inclusion of preservation covenants within the transfer documents. We are pleased that the Navy has taken this approach to these transfer actions, and in general it appears that the preservation covenants will provide adequate long term protections for these properties.

Since covenants are strictly construed in the event of a dispute regarding their enforcement it is critical that they be both clearly written and internally consistent. We suggest that each of the proposed covenants be reviewed by one of the Navy's real estate attorneys to ensure their enforceability before they are included in the final transfer documents. In particular, in Enclosure 2a we are concerned about the vague description of the protected properties in the first paragraph and do not think that paragraph (3) is clearly written. Paragraph (1)(a) of Enclosure 2b restricts actions that may alter a "significant interior feature," however we are uncertain that this descriptive term alone provides adequate notice to a property owner of the limitations included in the covenant. Paragraph (1) b. of this same enclosure requires the property owner to "make every effort to retain and reuse, to the extent practicable, Buildings 92 and 1146." Although we strongly advocate the reuse of these properties we are concerned that the current language is too vague to support an enforcement action under the covenant. We believe that language specifically permitting the National Park Service the right to delegate its responsibilities under the covenant is the better way to address the end note in both Enclosures 2b and 2c. The attachment to Enclosure 2b notes that Site No. 5098 is eligible under National Register criterion D, although it is described as including two features that contain human remains. Is this a typographical error? The covenant included in Enclosure 2d does not appear to be consistent

regarding the required approvals prior to development activities. Paragraph (1) requires the prior approval of both the United States Department of Education and the Hawaii State Historic Preservation Officer (SHPO) while paragraphs (3) and (4) only require approval by the SHPO. Paragraphs (4) and (5) follow the language used in Enclosure 2a, paragraph (3) and Enclosure 2b, paragraph (1) b. respectively and our comments above apply.

We request that you modify the proposed covenants in light of our recommendations and resubmit them for our review. We look forward to working with you to conclude the Section 106 process. If you have any questions or require further assistance finalizing the covenants, you may contact Lee Keatinge of the Western Office of Planning and Review at (303) 969-5110.

Sincerely,

A handwritten signature in black ink, appearing to read 'DKlima', with a large, stylized flourish on the left side.

Don L. Klima

Director

Office of Planning and Review

Land use development assumptions reflect the *Naval Air Station Barbers Point Community Redevelopment Plan* (Helber, Hastert & Fee, Planners, March 1997). Subsequent land use changes, as reflected in *Naval Air Station Barbers Point Community Redevelopment Plan Amendment 1* (Helber, Hastert & Fee, Planners, December 1997), are addressed in the main text.

PREFERRED PLAN																					
GENERAL DESCRIPTION			ACREAGE CALCULATION				DENSITY OR DEVELOPMENT INFORMATION					DEVELOPMENT CALCULATIONS									
Developer	Parcel No.	Description	Gross Acre	Less Wetland	Less 20% Roads	Net Acre	Source of Density	Density Range			Min Lot FAR	Max Site Coverage	Zoning/General data				Proposals or City Information				Notes
								Low End	High End	Probable			RF	DUs	SF	DUs	Parking Lot # Cars	Acre			
AIRPORT			725																		
	A	Airport operations	725	0	0.00	725.00	Actual	INFORMATION NEEDED												Hangars 110/111	
		General Aviation																			
	HHC	Aviation training/life safety																		Coast Guard	
		Coast Guard	48				Actual														
PARKS & RECREATION			422																		
Parks			184	0	0.00	184.00															
	City park	Shoreline Park					City info														
		Camping - 50 acre					City info													See sheet #7 (B)	
		Playfields - 40 acre					City info													See sheet #7 (B)	
	City park	Shoreline Park	8	0	0.00	8.00	City info	0	17,424	P-2										See sheet #7B/C	
	City park	Shoreline Park	31	0	0.00	31.00	City info	0	67,518	P-2										See sheet #7B/C	
	City park	Heritage Park	139	0	0.00	139.00	City info		18,500											Site size less than requested (170)	
	City park	Active recreation	58	0	0.00	58.00	City info	3400	126,324	P-2										See sheet #7B/C	
	City park	Downtown mini-park	2	0	0.00	2.00	Zoning	0	4,358	P-2										See sheet #7B/C	
Sports			227																		
	PS-1	International sports center	90	0	0.00	90.00	City info													See sheet #1 / 200 rooms for 400 guests	
		Field sports	62	0	0.00	62.00	City info													See sheet #3	
		Baseball center	75	0	0.00	75.00	State EIS													See sheet 2 / Add a 5,000 person grandstand	
COMMERCIAL/LIGHT INDUSTRIAL			280																		
Comm/Recreation			105	0	21.00	84.00															
	Priv./DHHL	Festival center	105	0	21.00	84.00	City info													See sheet #4 / Add seating for 6000+	
	Priv./DHHL	Marine park	49	0	9.80	39.20	Proposal													See sheet #8	
	Priv./DHHL	Auto raceway complex	128	0	25.20	100.80	Proposal	425,000	452,000	425,000										See sheet #9 - Add spectator seating	
Commercial			3																		
	DHHL	Downtown commercial	3	0	0.60	2.40	Zoning	B-1	B-2	B-1	1									104,544	
Commercial/LI			30	0	6.00	24.00															
	DHHL	Airport related	30	0	6.00	24.00	Census data	15,000	25,000	20,000	SF/acre									480,000	
Light Industrial			113																		
	DHHL	Adjacent to residential	8	0	1.60	6.40	Census data	15,000	25,000	20,000	SF/acre									128,000	
	DHHL	Adjacent to residential	45	5	8.00	32.00	Census data	15,000	25,000	20,000	SF/acre									640,000	
	DHHL	Airport related	29	0	5.80	23.20	Census data	15,000	25,000	20,000	SF/acre									484,000	
	Public	Desalination plant, LI	31	0	6.20	24.80	Census data	15,000	25,000	20,000	SF/acre									496,000	
HOUSING			72																		
Residential			12	0	2.40	9.60															
	DHHL	Downtown	12	0	2.40	9.60	Zoning	A-1	A-2	A-1	0.9	40%								376,358	
	DHHL	NW corner	60	0	12.00	48.00	Zoning	R-5	R-3.5	R-5	5000	50%								314	
Homeless			78																		
	HHA	Downtown Housing Facilities	13	0	2.60	10.40	Proposal													827	
	HHA	Downtown Community Services					Proposal													4.68	
	HHA	NW/Multi-family/self-help	65	2	12.80	50.40	Proposal													838	
PUBLIC FACILITIES			7	0	1.40	5.80															
	City	Downtown life safety	7	0	1.40	5.80	Proposal	MORE INFORMATION NEEDED													
	DHHL	Downtown vocational training	11	0	2.20	8.80	Zoning	B-1	I-2	B-1	1	80%								383,328	
	State DOE	Elementary School	14	0	2.80	11.20	Actual	INFORMATION NEEDED													

SUBTOTAL: 1982
 Roads / open space: 117
TOTAL: 2099
 3,072,230 Square Ft
 732 DUs
 1,903,600 Square Ft
 406 DUs

See List of Assumptions for this Land Use Table.
 Proposals: See attached notes regarding calculations based on specific proposals.

TOTAL: 4,975,838 SF
 1,138 DUs

ALTERNATIVE A																											
GENERAL DESCRIPTION			ACREAGE CALCULATION				DENSITY OR DEVELOPMENT INFORMATION					DEVELOPMENT CALCULATIONS															
Developer	Parcel No.	Description	Gross Acra	Less Wetland	Less 20% Roads	Net Acra	Source of Density	Density Range			Min Lot FAR	Max Site Coverage	Covering/Census data		Proposals or City Information				Notes								
								Low End	High End	Probable			SF	DUs	SF	DUs	Parking Lot										
AIRPORT			955																								
Public	A	Airport operations/Aviation traini	900	0	0.00	955.00	Actual	INFORMATION NEEDED																			
USCG		U.S. Coast Guard complex	55	Actual																							
DHHL		Possible raceway complex																									
PARKS & RECREATION			389																								
City park	P-1	Shoreline Park	193	0	0.00	193.00	City info																				
		Playfields - 40 acre																		See sheet #7 (A, B)							
		Camping - 50 acre																		See sheet #7 (A, B)							
		Ocean Beach Center - 50 acre																		See sheet #7 (A, B)							
City park	P-2	Sports Fields	100	0	0.00	100.00	City info	5000	20000	5000	P-2	5%								See sheet #3							
		Amphitheatre									P-2	5%															
City park	P-3	Heritage	87	0	0.00	87.00	City info	0	18,560	18560	P-2	5%								See sheet #5							
City park	P-4	Downtown mini-park	2	0	0.00	2.00	Zoning	P-2	P-2	P-2	5%	N/A	4,356														
DHHL	P-5	Open space	7	0	0.00	7.00	City info				P-2	5%															
COMMERCIAL/LIGHT INDUSTRIAL			79																								
Commer/Rec	CR																										
DHHL	CR-1	Marine park	53	0	10.60	42.40	Proposal													See sheet #8							
Commercial	C																										
DHHL	C-1	Downtown commercial	3	0	0.60	2.40	Zoning	B-1	B-2	B-1	1	None	104,544														
Comm/LI	CL																										
DHHL	CL-1	Commercial/Light Industrial	23	0	4.60	18.40	Census data	15,000	25,000	20,000	SF per acre		368,000														
Light Industrial	LI		429																								
DHHL	LI-1	NW corner	41	5	7.20	28.80	Census data	15,000	25,000	20,000	SF per acre		576,000														
DHHL	LI-2	Airport related	74	0	14.80	59.20	Census data	15,000	25,000	20,000	SF per acre		1,184,000														
DHHL	LI-3	(Possible raceway complex)	43	0	8.60	34.40	Census data	15,000	25,000	20,000	SF per acre		688,000							Raceway not used							
DHHL	LI-4	Base yards	15	0	3.00	12.00	Census data	15,000	25,000	20,000	SF per acre		240,000														
DHHL	LI-5	Airport related	3	0	0.60	2.40	Census data	15,000	25,000	20,000	SF per acre		48,000														
DHHL	LI-6	NE corner	90	0	18.00	72.00	Census data	15,000	25,000	20,000	SF per acre		1,440,000														
DHHL	LI-7	(Optional: prison site)	133	0	26.60	106.40	Census data	15,000	25,000	20,000	SF per acre		2,128,000							Prison not used							
Public	LI-8	Desalination plant,LI	30	0	6.00	24.00	Census data	15,000	25,000	20,000	SF per acre		480,000														
HOUSING			172																								
Residential	R																										
DHHL	R-1	Downtown	12	0	2.40	9.60	Zoning	A-1	A-2	A-1	0.9	40%	376,358	314						827	4.68						
DHHL	R-2	NE corner	100	0	20.00	80.00	Zoning	R-5	R-3.5	R-5	5000	50%		697						1,394	10.40						
DHHL	R-3	NW corner	60	0	12.00	48.00	Zoning	R-5	R-3.5	R-5	5000	50%		418						836	6.24						
Homeless	HR		48																								
HHA	HR-1	Downtown Housing Facilities	13	0	2.60	10.40	Proposal														See sheet #11						
HHA	HR-1	Downtown Community Services		Proposal																							
HHA	HR-2	NW - Low Inc Rental	15	0	3.00	12.00	Zoning	R-5	R-3.5	R-3.5	3500	50%		149							See sheet #11						
HHA	HR-3	NW - Self Help	20	2	3.60	14.40	Zoning	R-5	R-3.5	R-3.5	3500	50%		179													
PUBLIC FACILITIES			46																								
City	PF-1	Downtown life safety	7	0	1.40	5.60	City info	INFORMATION NEEDED																		See sheet #12 / Bldgs: 1709/1710 & 36	
DHHL	PF-2	Downtown vocational school	11	0	2.20	8.60	Zoning	B-1	I-2	B-1	1	None	383,328														
City	PF-3	Elementary school	14	0	2.80	11.20	Actual	INFORMATION NEEDED																			
City	PF-4	Firefighter training	13	0	2.60	10.40	City info	INFORMATION NEEDED																			See sheet #12

SUBTOTAL: 2117
Roads/Open Space: 24
TOTAL: 2141

8,020,586 Square Ft
1,757 DU's
550,560 Square Ft
0 DU's

TOTAL: 8,571,146 Square Ft
1,757 DU's

See List of Assumptions for this Land Use Table.
Proposals: See attached notes regarding calculations based on specific proposals.

ALTERNATIVE B																			
GENERAL DESCRIPTION			ACREAGE CALCULATION				DENSITY OR DEVELOPMENT INFORMATION						DEVELOPMENT CALCULATIONS						
Developer	Parcel No.	Description	Gross Acre	Less Res. Land	Less 20% Roads	Net Acre	Source of Density	Density Ranges			Min. Lot FAR	Max. Site Coverage	Zoning/Census data		Proposals or City Information			Notes	
								Low End	High End	Probable			SF	DU's	SF	DU's	Parking Lot F. Cost Acres		
AIRPORT			695																
Public	A	Airport operations	645	0	0.00	695.00	Actual	INFORMATION NEEDED											
USCG		Coast guard	50				Actual												
DHHL		Possible raceway complex																	
PARKS & RECREATION																			
Parks			663																
City park	P-1	Shoreline Park	139	0	0.00	139.00	City info	3500	3500	3500	P-2	5%		3,500		3,400	28		See sheet #7 (A,B)
City park		Camping - 50 acre					City info			1000	P-2	5%		1,000					See sheet #7 (A,B)
City park		Playfields - 40 acre					City info			800	P-2	5%		800					See sheet #7 (A,B)
City park		Ocean Beach Center - 50 acre					City info	13,200	13,200	13,200	P-2	5%		13,200		800	7		See sheet #7
City park		Pacific Rowing Regatta					City info	40,600	335,100	40,600	P-2	5%		40,600		5,400	45		See sheet #6 / No stadium @ 15K
City park	P-2	Heritage Park	237	0	0.00	237.00	City info			18,560	P-2	5%		18,560		1,200	10		See sheet #5
City park		Amphitheatre					City info				P-2	5%		Not specified					Add seating
City park	P-3	Sports Fields	100	0	0.00	100.00	City info				P-2	5%		5,000		2,500	20		See sheet #3
City park	P-4	Open space	7	0	0.00	7.00	City info				P-2	5%		0					
DHHL	P-5	Downtown mini-park	2	0	0.00	2.00	Zoning	0	#VALUE!	0	P-2	5%		0					
City park	P-6	Field sports	178	0	0.00	178.00	City info				P-2	5%		5,000		5,000	41		See sheet #3/ Add 5K stadium
State		Baseball center					State EIS							52,400		Not specified			See sheet #2
Sports	PS		78																
	PS-1	Pacific Int'l Sports Center	75	0	15.00	60.00	City info				P-2	5%		360,000		2,500	21		See sheet #1 - 200 rooms
COMMERCIAL / LIGHT INDUSTRIAL																			
Com/Rec			160																
DHHL	CR-1	Festival center/fairgrounds	106	0	21.20	84.80	City info									25,600		3,500	30
DHHL	CR-2	Marine park	54	0	10.80	43.20	Proposal									330,000			35
Commercial			3																
DHHL	C-1	Downtown commercial	3	0	0.60	2.40	Zoning	B-1	B-2	B-1	1	None		104,544			261	1.95	
Commercial/LI Indus			42																
DHHL	CL-1	Airport related	42	0	8.40	33.60	Census data	15,000	25,000	20,000	SF/acre			672,000			448	3.34	
Light Industrial			262																
DHHL	LI-1	Airport related	27	0	5.40	21.60	Census data	15,000	25,000	20,000	SF/acre			432,000			288	2.15	
DHHL	LI-2	Airport related	29	0	5.80	23.20	Census data	15,000	25,000	20,000	SF/acre			464,000			309	2.31	
DHHL	LI-3		29	0	5.80	23.20	Census data	15,000	25,000	20,000	SF/acre			464,000			309	2.31	
DHHL	LI-4	Base yards	15	0	3.00	12.00	Census data	15,000	25,000	20,000	SF/acre			240,000			160	1.19	
DHHL	LI-5		41	5	7.20	28.80	Census data	15,000	25,000	20,000	SF/acre			576,000			384	2.87	
DHHL	LI-6	LI / Optional prison site	76	0	15.20	60.80	Census data	15,000	25,000	20,000	SF/acre			1,216,000			811	6.05	Prison not used
DHHL	LI-7	Desalination plant,LI	30	0	6.00	24.00	Census data	15,000	25,000	20,000	SF/acre			480,000			320	2.39	
DHHL	LI-8		15	0	3.00	12.00	Census data	15,000	25,000	20,000	SF/acre			240,000			160	1.19	
HOUSING																			
Residential			127																
DHHL	R-1	Downtown	12	0	2.40	9.60	Zoning	A-1	A-2	A-1	0.9	40%		376,358		314		627	4.68
DHHL	R-2	NW corner	115	0	23.00	92.00	Zoning	R-5	R-3.5	R-5	5000	50%					1,603	11.96	
Homeless			38																
HHA	HR-1	Downtown Housing Facilities	13	0	2.60	10.40	Proposal									115,800			See sheet #11
HHA	HR-1	Downtown Community Services					Proposal									84,500			See sheet #11
DHHL	HR-2	NW-low income rentals/self help	35	2	6.80	26.40	Zoning	R-3.5	A-1	R-3.5	3500	50%		329					
PUBLIC FACILITIES			48																
City	PF-1	Downtown life safety academy	7	0	1.40	5.60	City info	INFORMATION NEEDED											
DHHL	PF-2	Downtown vocational school	11	0	2.20	8.80	Zoning	B-1	I-2	B-1	1	None		383,328					See sheet #12 / Bldgs. 1709/1710 & 36
City	PF-3	Elementary School	14	0	2.80	11.20	Actual	INFORMATION NEEDED											
City	PF-4	Firefighters Training	13	0	2.60	10.40	City info	INFORMATION NEEDED											
SUBTOTAL:			2107											5,648,230	1,444	1,035,960	0		
Roads & Open Space:			34											Square Ft	DU's	Square Ft	DU's		
TOTAL:			2141											6,684,190	1,444				
														Square Ft	DU's				

See List of Assumptions for this Land Use Table.
Proposals: See attached notes regarding calculations based on specific proposals.

ALTERNATIVE C																			
GENERAL DESCRIPTION			ACREAGE CALCULATION				DENSITY OR DEVELOPMENT INFORMATION						DEVELOPMENT CALCULATIONS						
Developer	Parcel No.	Description	Gross Acre	Less Wetland	Less 20% Roads	Net Acre	Source of Density	Density Range			Min Lot FAR	Max Site Coverage	Zoning/Census data		Proposals or City information			Notes	
								Low End	High End	Probable			SF	DU's	SF	DU's	Parking Lot # Cars		Acre
AIRPORT			85																
	A	Hawaii Air National Guard	85	0	0.00	85.00	Actual	INFORMATION NEEDED											
		Aviation Training																	
PARKS & RECREATION																			
	P	Parks	862																
	P-1	Shoreline Park	193	0	0.00	193.00	City Info				P-2	5%			3,500		3,400	28	See sheet #7 (A,B)
		Playfields - 40 acre					City Info				P-2	5%							See sheet #7 (A,B)
		Camping - 50 acre					City Info				P-2	5%							See sheet #7 (A,B)
		Ocean Beach Center - 50 acre					City Info				P-2	5%		13,200		800	7		See sheet #7 (A,B)
		Pacific Rowing Regatta - 127 ac?					City Info	40,600	335,100	335,100	P-2	5%		335,100		5,400	45		See sheet #6 (Add spectator fac)
	P-2	Park/Sports fields	100	0	0.00	100.00	City Info				P-2	5%		2,000					
	P-3	Heritage park	250	0	0.00	250.00	City Info	0	18,560	18,560	P-2	5%		27,294		1,765	15		See sheet #5
		Pacific rowing regatta (see above)					City Info				P-2	5%		See above					See sheet #6
	P-4	Active rec / bikes	40	0	0.00	40.00	City Info				P-2	5%		0					
	P-5	Baseball center	120	0	0.00	120.00	State EIS				P-2	5%		52,400		Not specified			See sheet #2 (add 5K grandstand)
	P-6	Field sports complex	150	2	0.00	148.00	City Info				P-2	5%		5,000		5,000	40		See sheet #3
	P-7	Downtown mini-park	2	0	0.00	2.00	Zoning	0	4000	0	P-2	5%		0					
	P-8	Open space	7	0	0.00	7.00	City Info				P-2	5%		0					
	PS	Sports	95																
	PS-1	Pacific International Sports Center	95	0	19.00	76.00	City Info				P-2	5%		360,000		2,500	21		See sheet #1 - (200 rooms)
COMMERCIAL / LIGHT INDUSTRIAL																			
	CR	Com/Recreat'n	484																
	CR-1	Festival center/fairgrounds	123	0	24.80	98.40	Proposal							25,600		3,500	30		See sheet #4 / Add 6K+ seating.
		Amphitheatre																	
	CR-2	Marine park	101	0	20.20	80.80	Proposal							330,000			35		See sheet #8
	CR-3	Auto raceway complex	260	0	52.00	208.00	Proposal	425,000	452,400	IMX-1	1.75	80%		452,400					See sheet #9 / Add spectator fac.
	C	Commercial	3																
	C-1	Downtown commercial	3	0	0.60	2.40	Zoning	B-1	B-2	B-1	1	None	104,544			261	1.95		
	LI	Light Industrial	132																
	LI-1	(optional prison site)	76	0	15.20	60.80	Census data	15,000	25,000	20,000	SF/acre		1,216,000			811	6.05		Prison not used
	LI-2	base yards	15	0	3.00	12.00	Census data	15,000	25,000	20,000	SF/acre		240,000			180	1.19		
	LI-3		41	5	7.20	28.80	Census data	15,000	25,000	20,000	SF/acre		576,000			384	2.87		
HOUSING																			
	R	Residential	142																
	R-1	Downtown	12	0	2.40	9.60	Zoning	A-1	A-2	A-1	0.9	50%	376,358	314		627	4.68		
	R-2	NE sector	130	0	26.00	104.00	Zoning	R-5	R-3.5	R-5	5000	50%		906		1,812	13.52		DOH concerns
	HR	Homeless	48																
	HR-1	Downtown Housing	13	0	2.80	10.40	Proposal							115,800					See sheet #11
	HR-1	Downtown Community Serv.					Proposal							64,500					See sheet #11
	HR-2	NW sector	35	0	7.00	28.00	Zoning	R-5	R-3.5	R-3.5	3500	50%		348					DOH concerns
PUBLIC FACILITIES																			
	PF	PUBLIC FACILITIES	82																
	PF-1	Downtown life safety academy	7	0	1.40	5.60	Proposal	NEED INFORMATION											See sheet #12 / Bldgs. 1709/1710/36
	PF-2	Downtown vocational school	11	0	2.20	8.80	Zoning	B-1	I-2	B-1	1	None	383,328						
	PF-3	Elementary School	14	0	2.80	11.20	Actual	NEED INFORMATION											
	PF-4	Firefighters training	30	0	6.00	24.00	Proposal	NEED INFORMATION											See sheet #12
	U	UTILITIES	70																
	U-1	HECO site	70				Proposal	SF Info not provided											Analysis not based on SF
Subtotal:			1983											2,896,230	1,568	1,786,794	0		
Roads:			158											Square Ft	DU's	Square Ft	DU's		
TOTAL:			2141											4,883,028	1,568				
														Square Ft	DU's				

See List of Assumptions for this Land Use Table.

Proposals: See attached notes regarding calculations based on specific proposals.

1. PACIFIC INTERNATIONAL SPORTS CENTER

City of Honolulu Facilities Proposal
 90 acre parcel
 (150 acre parcel was later requested)

Proposed Facilities:	Estimated Size:	
	Closed (SF)	Open (SF)
Administrative Complex	27,740	
Events Planning and Development Center	16,550	2,500
Sports Hall of Fame & Visitor Center	9,900	4,500
Athlete residences*	159,400	
Dining Facility	25,700	6,000
Sports Performance Clinic:		
a. Sports Medicine & Technology	SF not specified	
b. Aquatics Center	45,000	
c. Multi-purpose gymnasium	55,000	
d. Training & Competitive Exhibition Arena**	(Similar to UH arena)	
e. Education Center	5,400	
Subtotal:	349,390	13,000
Total:		362,390
Parking (at-grade) for 2500 cars @ 360 sf/car	900,000 (or 21 acres)	

*400 residents in 200 rooms (2 per bedroom)

**City planner L. Chun stated the arena would hold 10-15,000 people However, the arena was not presented to or approved by the Reuse Committee. It is not included in the EIS analysis.

Information provided by C & C of Honolulu, Planning Dept. / document dated 3/12/96
 Total SF does not include items listed above for which specific SF was not provided.

2: BASEBALL CENTER

Mitsunaga & Assoc.: EIS

State of Hawaii

Approx. 80 acre parcel shown in diagram

Proposed Facilities:	Estimated Size: Square Feet	Acres
<i>Fields:</i>		
4 baseball fields		Not specified
1 "stadium" field		Not specified
2 practice infields		Not specified
5 tennis courts		Not specified
3 basketball courts		Not specified
Multi-use plaza		Not specified
<i>Facilities:</i>		
5,000 seat grandstand	Not specified	
Multi-purpose building	10,000	
Batting cages	15,000	
Maintenance Building	3,200	
Observation Towers	2,000	
Dormitory	22,200	
<i>Parking:</i>		
Diagram only; No figures provided within the EIS		Not specified
	52,400	75
Total:	Square Feet	Acres mentioned

Total SF does not include items listed above for which specific SF was not provided.

2A. BASEBALL CENTER

City of Honolulu (L.Chun)
110 acre parcel request

Proposed Facilities:	Estimated Size: Square Feet	Acres
<i>Community & Practice Facilities:</i>		
4 baseball fields		36
team meeting facilities / restroom	5,000	
3 outdoor basketball courts		
6 tennis courts		2
2 softball fields		4
<i>Competitive Facilities:</i>		
Baseball stadium for 15,000 persons	Not specified	Not specified
<i>Parking:</i>		
Parking (5000 spaces at-grade)		41
	5,000	82
Total:	Square Feet	Acres

NOTE:

It is likely that the Baseball Center (#2) would share parking with the International Sports Center (#1). It is also likely that an arena, if built, would be shared with the International Sports Center. (However, the International Sports Center may need to have a sport other than baseball in its arena).

*Information provided by C & C of Honolulu, Planning Dept. / document dated 3/12/96
Total SF does not include items listed above for which specific SF was not provided.*

3. FIELD SPORTS COMPLEX

City of Honolulu Facilities Proposal
110 Acre parcel requested

Proposed Facilities:	Estimated Size: Square Feet	Acres
<i>Community & Practice Facilities:</i>		
4 baseball fields		35.50
team meeting facilities / restroom	5,000	
3 outdoor basketball courts		
6 tennis courts		1.50
2 softball fields		4.00
<i>Competitive Facilities:</i>		
Baseball stadium for 15,000 persons	Not Used	Not Used
<i>Parking:</i>		
Parking (5000 spaces at-grade)		41.30
Total:	5,000 Square Feet	82 Acres

*Information provided by C & C of Honolulu, Planning Dept. / document dated 3/12/96
Total SF does not include items listed above for which specific SF was not provided.*

4. FESTIVAL CENTER

City of Honolulu Facilities Proposal
65 acre parcel requested

Proposed Facilities:	Estimated Size: Square Feet	Acres
<i>Outdoor Amphitheatre:</i>		
Performance Shell		1.00
Seating (fixed for 6000/lawn for 9000)	Not Specified	24.10
Support facilities	9,600	0.22
<i>Landscaped Public Gardens:</i>		
Gardens & Lawns		10.00
Pavilions	8,000	
Concessions/Restrooms	5,500	
Performer Staging building	2,500	
<i>Parking:</i>		
At-grade 3500 spaces		29.70
	25,600	65
	Square Feet	Acres

Information provided by C & C of Honolulu, Planning Dept. / document dated 3/12/96
Total SF does not include items listed above for which specific SF was not provided.

5. HERITAGE CENTER

City of Honolulu Facilities Proposal
170 acre parcel requested

Proposed Facilities:	Estimated Size: Square Feet	Acres
<i>Administrative Facilities</i>		
Registration & Events Coordinator	900	4.00
Offices for 11 prof'l staff	2,160	
Conference Room	300	
Restroom & Storage	540	
<i>Heritage Education Center</i>		
Classrooms & Demonstrations	5,240	
Auditorium for 300	4,800	
Restrooms	500	
Storage / Utilities	1,000	
<i>Recreation Facilities:</i>		
Interpretive sites		Not specified
Outdoor instruction	720	8.00
<i>Small Group Camping / Picnicking:</i>		
Picnic Grounds	1200	20
Campgrounds	1200	30
Preserve / resource Areas		80
<i>Parking & Circulation</i>		
At-grade for 1,200 cars		10
Roadways & Buffer Areas		18
Total:	18,560 Square Feet	170 Acres

NOTE:

*Only areas specified in documents provided are included in totals.

**Information provided by C & C of Honolulu; document dated 3/12/96.

*** Auditorium is a simple outdoor amphitheatre unless listed as "amphitheatre" on plan.

6. PACIFIC ROWING REGATTA

City of Honolulu Facilities Proposal
220 Acre parcel requested

Proposed Facilities:	Estimated Size: Square Feet	Acres
<hr/>		
<i>2,000 Meter Racing Channel</i>		
Channel /w water		79.02
Walkways		2.57
<i>Boat Staging and Storage</i>		
Boathouse	15,000	
Floating Launching Docks	3,600	
Boat repair yard	22,000	
<i>Spectator Facilities</i>		
Spectator Seating for 15,000	234,500	
Media Facilities	30,000	
Post-Race Ceremony and Processing	30,000	
Team and Family Picnic Areas		Not specified
<i>Parking</i>		
At-grade for 5,400 cars		45
<hr/>		
Total:	335,100 Square Feet	127 Acres
Without Spectator facility:	40,600	

NOTE:

**Only areas specified in documents provided are included in totals.*

***Information provided by C & C of Honolulu; document dated 3/12/96.*

7. OCEAN RECREATION DISTRICT

City of Honolulu Facilities Proposal

340 acre parcel requested

Proposed Facilities:	Estimated Size: Square Feet	Acres
A: OCEAN CENTER		50.00
<i>Ocean Sport Staging Area</i>		
Boat & Canoe Launch Ramps		Not specified
Reception Area (outdoors)		0.28
Boat Trailer Parking (60 cars)		1.38
Boat & Canoe Staging Area		0.92
<i>Ocean Center</i>		
Water feature		1.00
Ocean Center Building*	13,200	
<i>Parking & Circulation</i>		
At-grade for 800 cars		7.00
Subtotals:	13,200	
B. WHITE PLAINS BEACH PARK		160.00
Beach Zone		
<i>Field Areas:</i>		
Campgrounds		50.00
Picnic & games		40.00
Restrooms	2000	
Pavilions	1440	
Roadways, buffers, & drainage		30.00
Parking for 3,400 cars		28.00
Subtotals:	3,440	148
C. NIMITZ BEACH PARK		130.00
Beach Zone		
		12.00
<i>Field Areas</i>		
Large Group Picnic Area		50.00
Family Picnic Area		30.00
Roadways, Buffers, & Drainage		23.00
Parking for 1,800 cars		15.00
Subtotals:		130.00

NOTE:

Only areas specified in documents provided are included in totals.
Information provided by C & C of Honolulu; document dated 3/12/96.

* Includes an instruction center, equipment rental center, snack bar, and 5500 sf restaurant.

8. MAKAI PARK HAWAII (Marine Park)

Facilities Proposal

Visitors/yr: 950,000

Proposed Facilities:	Acre:	Est. SF**:
Swim-through aquarium	15	No estimates
Waterpark	5	given for
Botanical gardens, aviary, tide/touch pools	25	outdoor
Parking:	25	construction
Meeting/Commercial space:	5	326,700
Banquet/function areas		
Food and gift facilities		
Theatre		
Research facilities		
TOTAL:	75	326,700

**Estimated SF = acreage developed @ 75% and 2 stories, Rounded to 330,000 SF. 75% coverage possible because parking requirements are contained within the 25 acre parcel.

9. AUTO RACEWAY COMPLEX

Facilities Proposal

Drag Strip	5000 ft
Road Course	1 to 2-1/2 miles long
Dirt oval arena	1/3 mile
Off road course	5 acre
repair and machine shops	150,000 SF
retail space	200,000 SF
parking lot	1,200 car
spectator "amenities"	See below
Driving School	
Auto-related flea market (occasional)	

Proposed annual attendance: 521,250
 See SMS table for daily/peak attendance

Spectator Facilities	for 15,000	for 10,000
<i>*Sample facility from Graphic Standards</i>		
Concessions	2,500	1,667
Toilets	6,000	4,000
Team lockers/toilets	6,400	4,267
Dressing/interview rooms	1,200	800
Employee areas	2,900	1,933
Truck dock/receiving	5,800	3,867
Storage	21,600	14,400
Administrative offices	9,000	6,000
Lobby	20,000	13,333
Ticketing	7,000	4,667
	82,400	54,933

Above SF estimates do not include seating areas.

10. HECO PROPOSAL

200,000 MW coal-fired generators	2
240 MW oil-fired generator	1
acre site request	105

1 plant = 35 acres
2 plants = 70 acres

Assumption: 2 plants could be constructed on site provided.

11. HOMELESS PROPOSAL

DOWNTOWN:

PHASE I DEVELOPMENT

Units:	Bldg:	SF:
	32	2,594
	50	24,470
71	48	24,300
71	39	24,300
142		73,070

Clinic (Not counted; replaced in phase II)
 Community services
 Family housing
 Single male housing

PHASE II DEVELOPMENT

Est. acreage based on drawing submittal (Exhibit 19):

Acre:	*SF:
3.09	67,200
3.67	40,000
6.76	107,200

*SF development based on 25% site coverage @ 2 stories.
 a. Group Housing and Health Center
 b. Community facilities
Future gym, library, day care center, classrooms & playground.
Note: 50% of "community facilities" acreage indicated as a recreation area.

NW SITE: 65 acre

Housing Acre:	Other: Acre:	DU	SF	Use	
15	0	120	0	Rental housing	Assume Habitat request (SF/MF)
0	7	0	300,000	Support services	1 story, scaled from drawing
0	2	0	0	garden	1 story, scaled from drawing
0	4	0	200,000	community center	
8	0	100	0	rental housing	Assume density = R-3.5
15	0	187	0	permanent housing	Assume density = R-3.5
0	4	0	0	park/recreation	
0	10	0	0	agriculture	
38	27	406	500,000		

12. LIFE SAFETY ACADEMY & HFD SERVICES

1709, 36, 1710

DOWNTOWN:

Use:	Existing / New Building	SF:	Acre:
Structure: Fire Station	Fire Station	?	
Helicopter Tender Storage Building	New	?	
Dormitory for 120 persons	Building 39	?	
Classrooms, auditorium, administrative, kitchen	New	?	
Housing and servicing HFD helicopters, office space, and equipment / storage	Hanger 111	?	

Outside Downtown Center:

Outdoor Training & Burn Practice	Not allocated:		6
----------------------------------	----------------	--	---

TOTAL:

Mentioned in Reuse Plan:

Buildings to be used:	Square Feet:
Building 36	
Building 1709	
Building 1710	
Total:	

LIST OF ASSUMPTIONS:

The following assumptions were used in developing the land use tables for all Alternatives

ALL DEVELOPMENT

Estimated development is for buildings only. It does not include parking.

COMMERCIAL / RECREATION DEVELOPMENT:

- 1 When proposals were available for parcels labeled Commercial/Recreation, that data was used to develop land use tables for analysis within this EIS.
- 2 Allowable SF based on a probable zone in the LUO was not an appropriate method for this analysis. "Outdoor recreation" is primarily allowed in the IMX-1 category, and its maximum FAR=1.75. The level of development produced using an FAR of 1.75 was not consistent with the description of Commercial / recreation uses in the Naval Air Station Barbers Point: Community Redevelopment Plan.
- 3 No other basis for determining potential land use for these parcels was supplied to the EIS consultant.

RESIDENTIAL AND HOMELESS:

- 1 Downtown residential development is apartments;
- 2 Apartment assumptions: Net area = 75% gross; Average apartment = 1200 SF
- 3 Outside Downtown: R-5 if DHHL (typical for surrounding area) and R-3.5 if homeless (higher density).
- 4 Downtown homeless residential combines housing/public facilities components.
- 5 Downtown homeless residential is based on HHA proposal for all alternatives.
- 6 Parking for dwelling units = 2 cars per dwelling unit.
- 7 See proposal summary for details on homeless proposal for Preferred Plan.
- 8 Zoning was used on Alternatives A, B, and C for homeless housing. Proposal not appropriate for these alternatives because the size of land available was dramatically different than the proposal.

INDUSTRIAL USE:

- 1 Allowable SF/acre is indicated. At FAR=1, development would be 43,560 SF/acre.
- 2 PKF 1996 data , provided by SMS consultants: Actual industrial development = 15,000 to 25,000 SF per acre in Honolulu. 20,000 SF/acre was used, which is about 50% of allowable development, was used as the number for likely industrial development levels in this area before the year 2020.

PARKS

- 1 Information for park development provided by C & C of Honolulu, Planning Department.
- 2 Where specific descriptions were not available, the P-2 Preservation District was used. The maximum building area for a P-2 district was 5% of the zoning lot. An assumption was made that buildings in a P-2 district would be a maximum 1 story in height.

- 3 When located within a public park, the Amphitheatre is assumed to be a small facility with no extra parking associated with its development. The City's proposal (similar to Waikiki Shell) is only included on commercial/rec parcels.

HERITAGE CENTER

Estimated development is calculated based on size of site and "amphitheatre" listing. City data is for a 170 acre site, so a site of 85 acres would be half, or 50%, of the listed development. The amphitheatre is included only when specified.

VOCATIONAL SCHOOL (DHHL)

Vocation training schools could be located in a B-1 or I-2 district. Although some types of schools are not permitted in the B-1 district, this designation was used because the level of development allowed in an I-2 district is not likely to be developed in this area. Using the maximum FAR for a B-1 district still resulted in a high level of development, but not other basis was available for determining determining the potential level of development. Therefore, allowable under B-1 was used.

MAXIMUM SITE COVERAGE

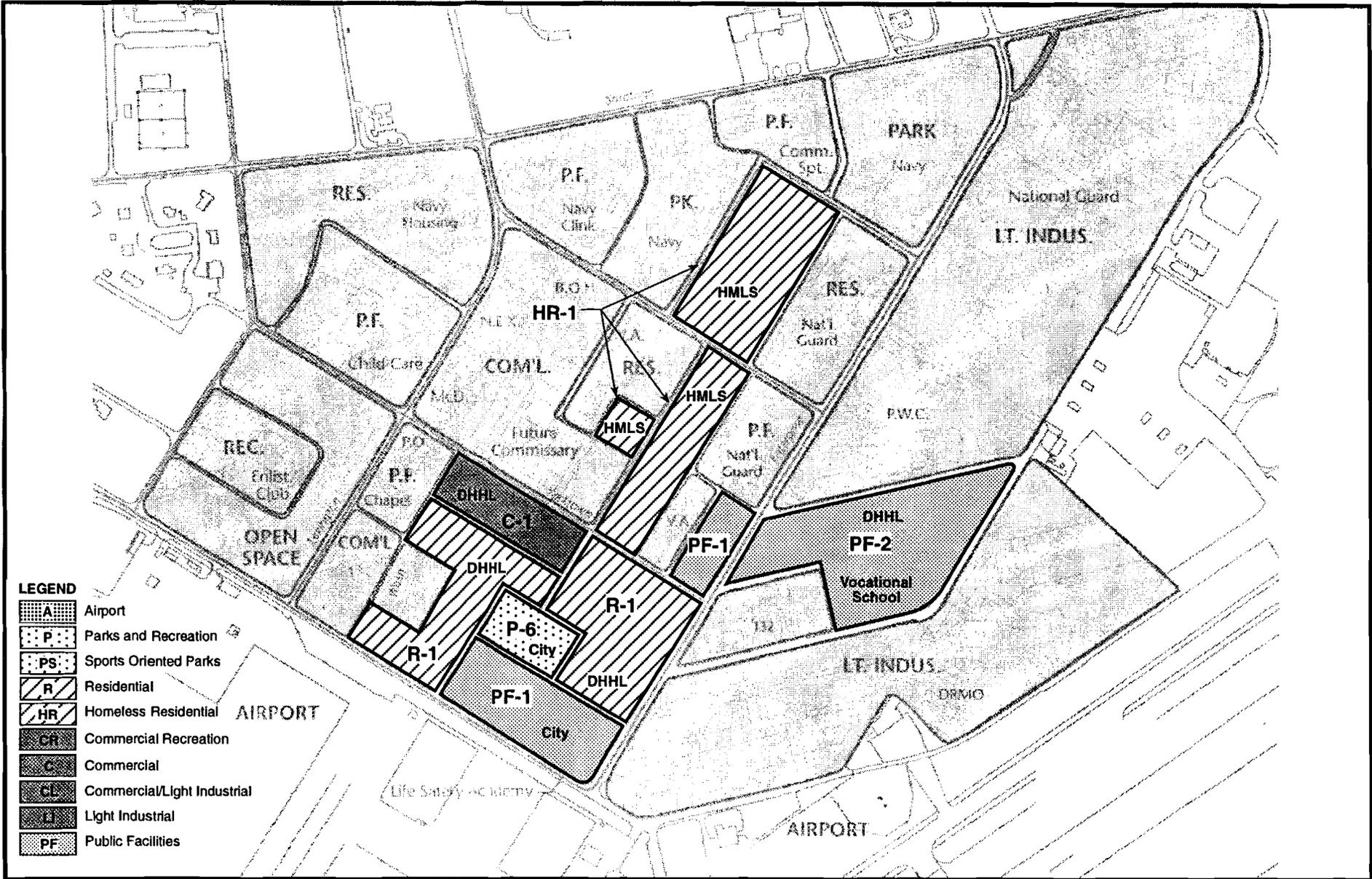
This information is provided if needed for rainwater runoff calculations. It does not impact the level of development calculations for a parcel.

PRISON SITE

"Possible prison site" was not used.

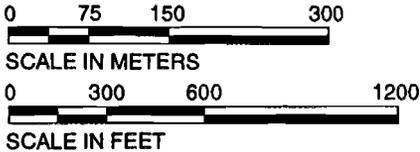
RACEWAY COMPLEX

Not considered if listed as "possible" and located within airport boundary.



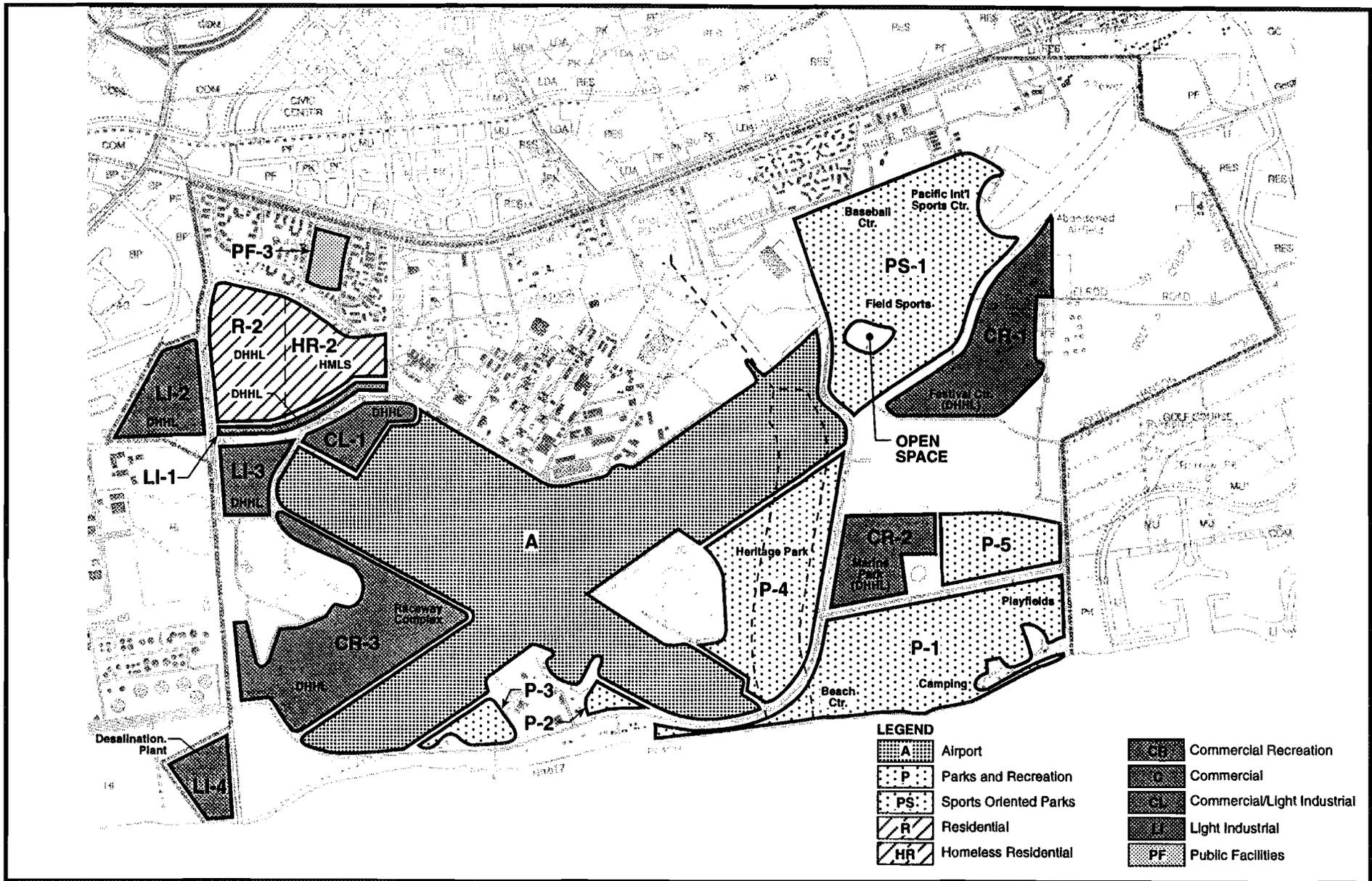
LEGEND

	Airport
	Parks and Recreation
	Sports Oriented Parks
	Residential
	Homeless Residential
	Commercial Recreation
	Commercial
	Commercial/Light Industrial
	Light Industrial
	Public Facilities



NORTH

Figure B-1
LAND USE DEVELOPMENT ASSUMPTIONS—CENTRAL AREA
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii
 Prepared by Belt Collins Hawaii
 October 1997



0 300 600 1200

SCALE IN METERS

0 1200 2400 4800

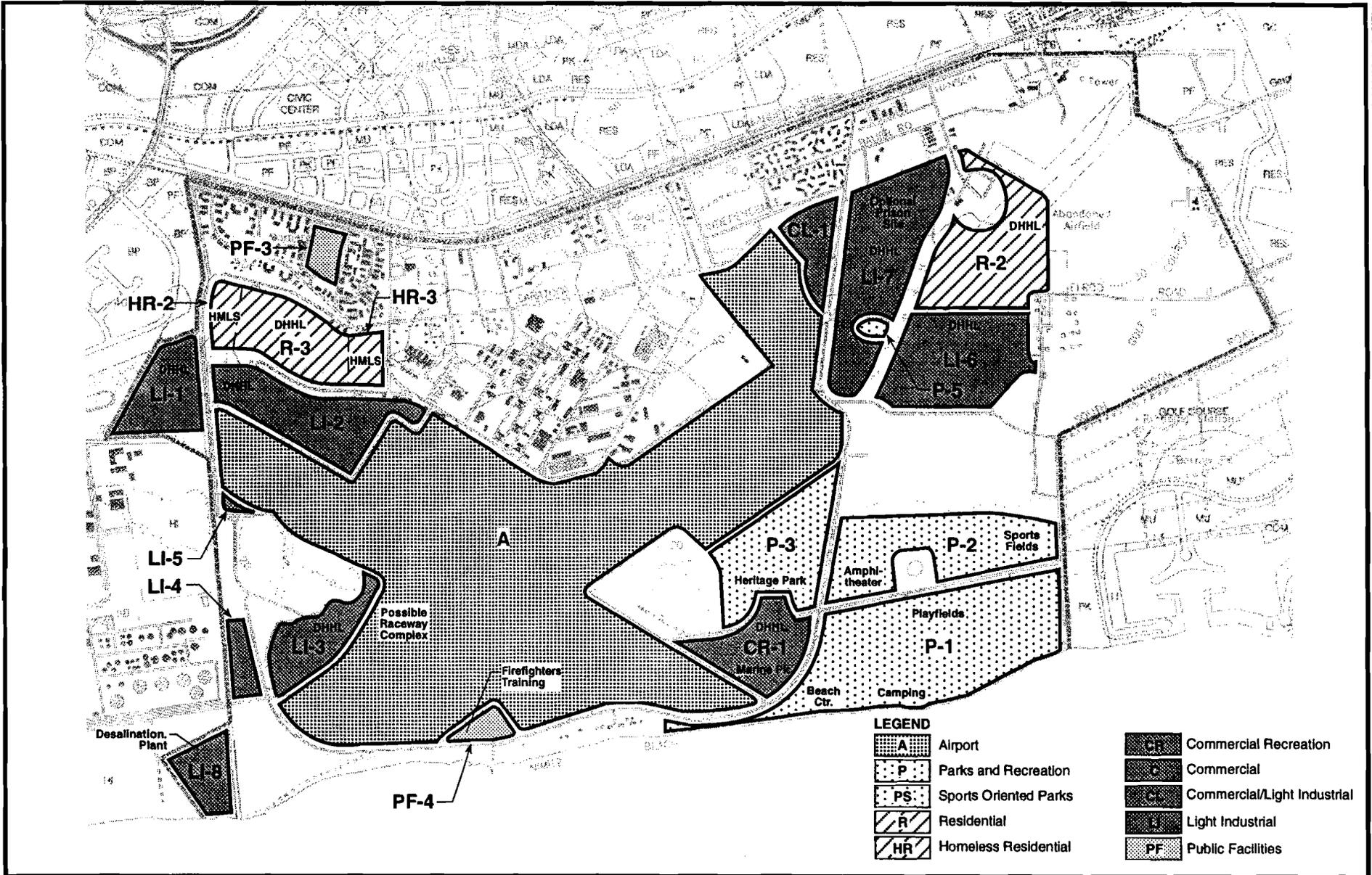
SCALE IN FEET



NORTH

Figure B-2
LAND USE DEVELOPMENT ASSUMPTIONS—STATE APPROVED PLAN

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii
 Prepared by Belt Collins Hawaii
 October 1997



0 300 600 1200

SCALE IN METERS

0 1200 2400 4800

SCALE IN FEET



NORTH

Figure B-3
LAND USE DEVELOPMENT ASSUMPTIONS—ALTERNATIVE A

EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii
 Prepared by Belt Collins Hawaii
 October 1997

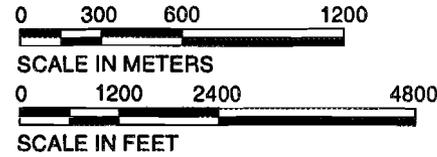
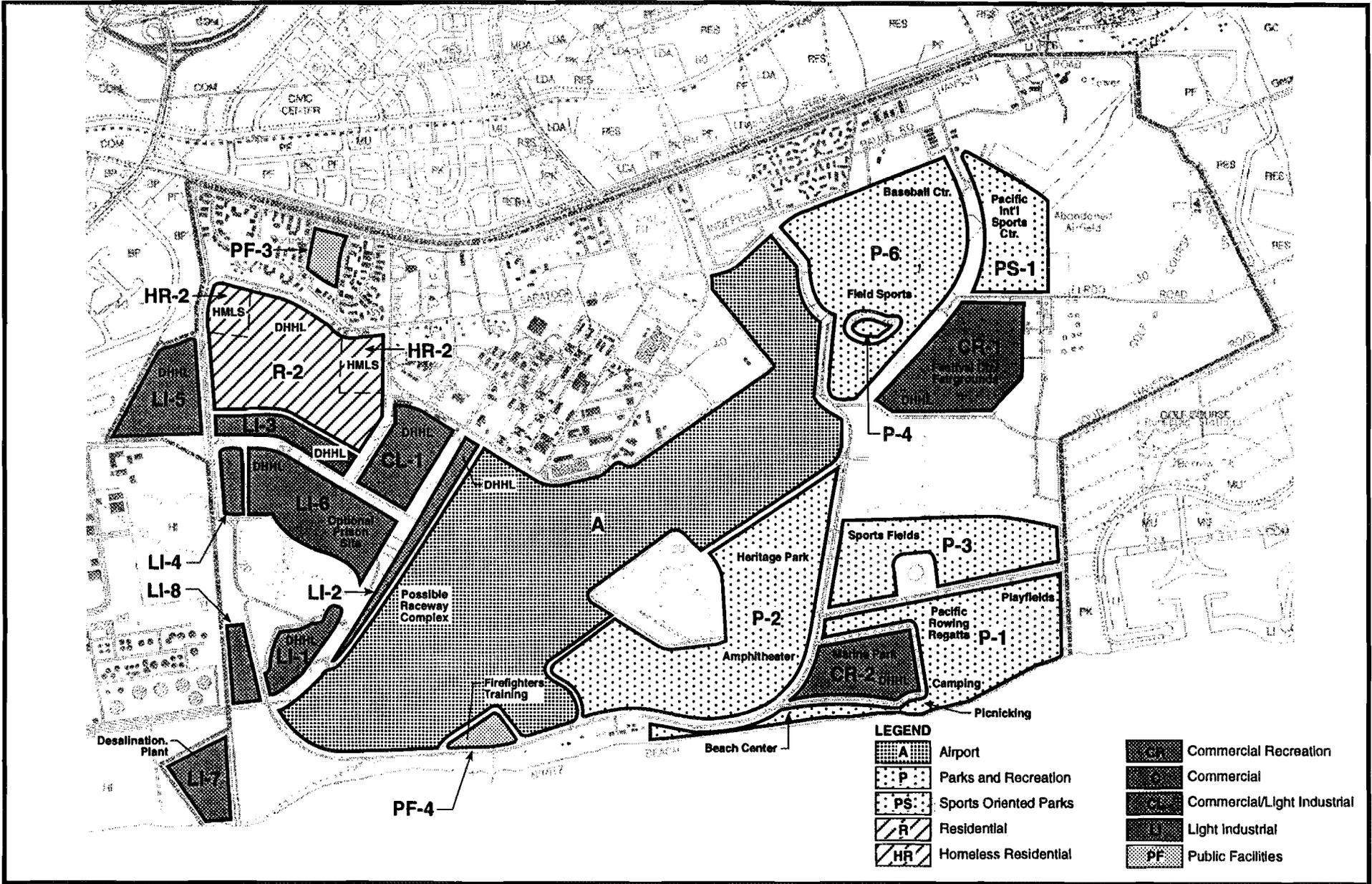


Figure B-4
LAND USE DEVELOPMENT ASSUMPTIONS—ALTERNATIVE B
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii
 Prepared by Belt Collins Hawaii
 October 1997

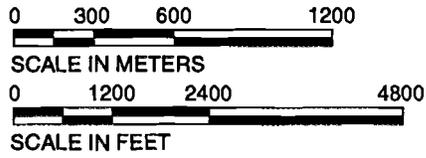
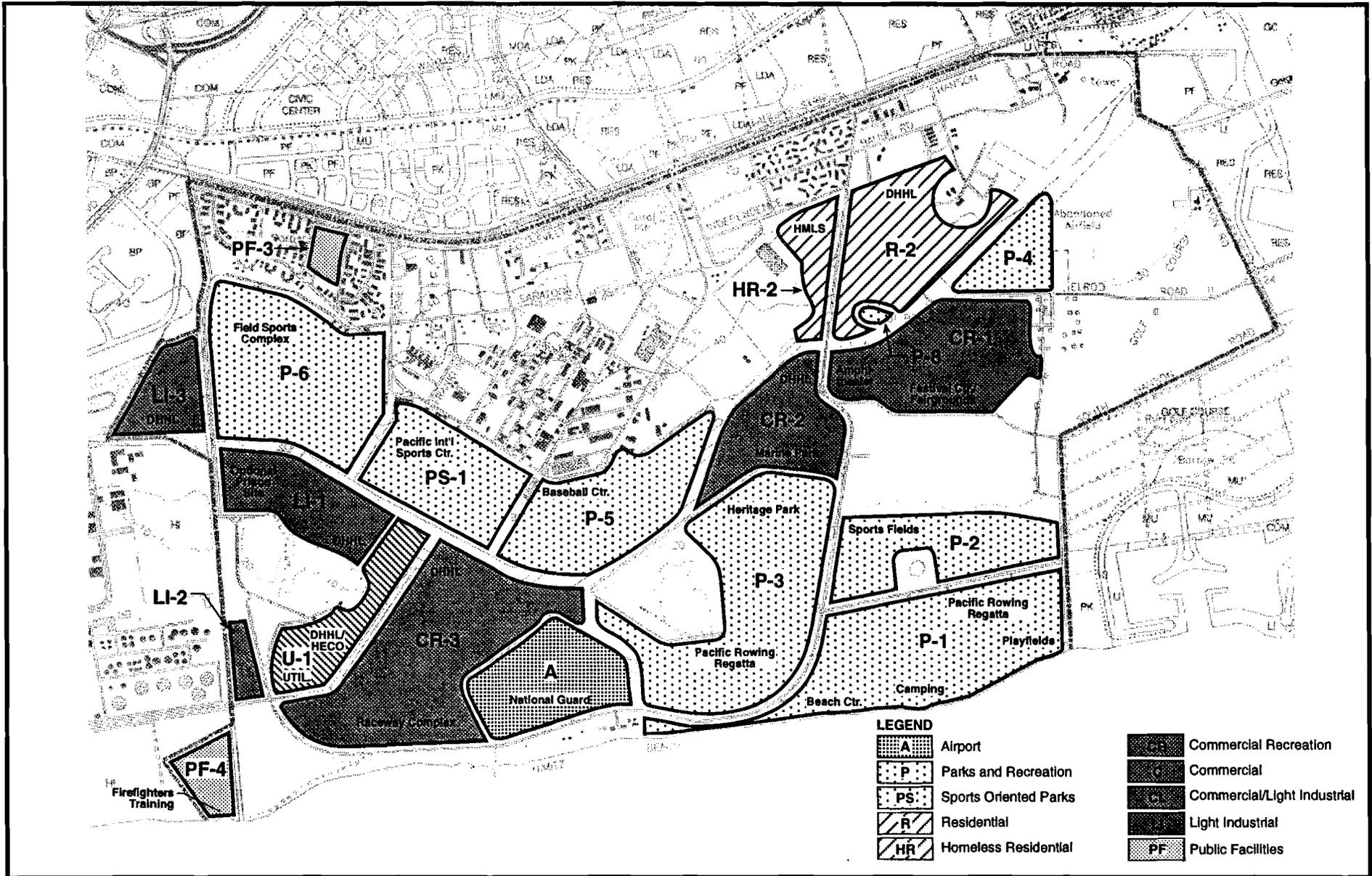


Figure B-5
LAND USE DEVELOPMENT ASSUMPTIONS—ALTERNATIVE C
 EIS for the Disposal and Reuse of
 Naval Air Station Barbers Point, Hawaii
 Prepared by Belt Collins Hawaii
 October 1997

Average Daily Operations at Kalaeloa Airport (2020)

State-Preferred Alternative

A/C	TOTAL DAILY LAND'S.	----- RMY 04R -----			----- RMY 04L -----			----- RMY N4L -----			----- RMY H22R -----	
		ITIN. 4RA3	LOCAL 4RA4	LOCAL 4RA1	ITIN. 4LA2	ITIN. 4LA3	ITIN. 4LA4	ITIN. H4LA2	ITIN. H4LA3	LOCAL H4LA1	ITIN. H22RA1	LOCAL H22RA3
DAYTIME:												
C-130	4.85	3.09	1.03									
C-26	0.97	0.62	0.20									
CH-47	6.79						2.04	0.34	3.75			0.66
NH-65A	4.85						0.00		0.00			
PA31/C402	51.41			23.58	8.05	12.07						
C172/PA28	190.12			86.49	28.53	46.59						
BELL	11.64						1.16	7.33	1.98	0.81	0.35	
TOT DAY:	270.63	3.72	1.23	110.07	36.58	46.59	3.20	7.67	5.73	0.81	1.01	
NIGHT:												
C-130	0.15	0.10	0.03									
C-26	0.03	0.02	0.01									
CH-47	0.21						0.06	0.01	0.12			0.02
NH-65A	0.15						0.00		0.00			
PA31/C402	1.59			0.73	0.25	0.37						
C172/PA28	5.88			2.67	0.88	1.44						
BELL	0.36						0.04	0.23	0.06	0.03	0.01	
TOT NITE:	8.37	0.11	0.04	3.40	1.13	1.44	0.10	0.24	0.18	0.03	0.03	

GA-BPT (ALT 17) CY 2020 LANDINGS/DAY:

A/C	TOTAL DAILY LAND'S.	--- RWY 22R ---		--- RWY 22L ---		--- RWY 29 ---	--- RWY H4R ---		--- RWY H22L ---	
		ITIN. 22RA2	ITIN. 22RA3	LOCAL 22LA4	LOCAL 22LA1	ITIN. 29A5	ITIN. H4RA2	LOCAL H4RA1	ITIN. H22LA1	LOCAL H22LA2
DAYTIME:										
C-130	4.85			0.18		0.54				
C-26	0.97			0.04		0.11				
CH-47	6.79									
NH-65A	4.85						3.15	1.21	0.24	0.24
PA31/C402	51.41		1.42		4.16	2.13				
C172/PA28	190.12	8.22	5.03		15.27					
BELL	11.64									
TOT DAY:	270.63	8.22	6.45	0.22	19.43	2.78	3.15	1.21	0.24	0.24
NIGHT:										
C-130	0.15			0.01		0.02				
C-26	0.03			0.00		0.00				
CH-47	0.21									
NH-65A	0.15						0.10	0.04	0.01	0.01
PA31/C402	1.59		0.04	0.00	0.13	0.07				
C172/PA28	5.88	0.25	0.16	0.00	0.47					
BELL	0.36									
TOT NITE:	8.37	0.25	0.20	0.01	0.60	0.09	0.10	0.04	0.01	0.01

GA-BPT (ALT 17) CY 2020 DEPARTURES/DAY:

A/C	TOTAL DAILY DEPART'S.	----- RMY 22L -----			- RMY 11 -	--- RMY H4R ---		--- RMY H22L ---	
		ITIN. 22LD2	LOCAL 22LD4	LOCAL 22LD1	ITIN. 11D5	ITIN. H4RD1	LOCAL H4RD2	ITIN. H22LD2	LOCAL H22LD1
DAYTIME:									
C-130	4.85	0.54	0.18		3.09				
C-26	0.97	0.11	0.04		0.62				
CH-47	6.79								
HH-65A	4.85					3.15	1.21	0.24	0.24
PA31/C402	51.41			4.16	12.07				
C172/PA28	190.12			15.27					
BELL	11.64								
TOT DAY:	270.63	0.65	0.22	19.43	15.78	3.15	1.21	0.24	0.24
NIGHT:									
C-130	0.15	0.02	0.01		0.10				
C-26	0.03	0.00	0.00		0.02				
CH-47	0.21								
HH-65A	0.15					0.10	0.04	0.01	0.01
PA31/C402	1.59			0.13	0.37				
C172/PA28	5.88			0.47					
BELL	0.36								
TOT NITE:	8.37	0.02	0.01	0.60	0.49	0.10	0.04	0.01	0.01

GA-BPT (ALT 17) CY 2020 DEPARTURES/DAY:

A/C	TOTAL DAILY DEPART'S.	--- RWY 04L ---		--- RWY 04R ---		----- RWY H4L -----				----- RWY H22R -----		----- RWY 22R -----		
		(ITIN. 4LD2	(ITIN. 4LD3	LOCAL 4RD4	LOCAL 4RD1	(ITIN. H4LD1	(ITIN. H4LD4	LOCAL H4LD3	(ITIN. H4LD5	(ITIN. H22RD2	LOCAL H22RD1	(ITIN. 22RD2	(ITIN. 22RD3	(ITIN. 22RD4
DAYTIME:														
C-130	4.85			1.03										
C-26	0.97			0.20										
CH-47	6.79					0.34	3.75	1.63		0.41	0.66			
HH-65A	4.85													
PA31/C402	51.41		8.05		23.58							1.42		2.13
C172/PA28	190.12	46.59	28.53		86.49							5.03	8.22	
BELL	11.64					0.81	7.33	1.98		1.16	0.35			
TOT DAY:	270.63	46.59	36.58	1.23	110.07	0.81	7.67	5.73	1.63	1.57	1.01	6.45	8.22	2.13
NIGHT:														
C-130	0.15			0.03										
C-26	0.03			0.01										
CH-47	0.21					0.01	0.12	0.05		0.01	0.02			
HH-65A	0.15													
PA31/C402	1.59		0.25		0.73							0.04		0.07
C172/PA28	5.88	1.44	0.88		2.67							0.16	0.25	
BELL	0.36					0.03	0.23	0.06		0.04	0.01			
TOT NITE:	8.37	1.44	1.13	0.04	3.40	0.03	0.24	0.18	0.05	0.05	0.03	0.20	0.25	0.07

Average Daily Operations at Kalaeloa Airport (2020)

Small Airport Alternative

A/C	TOTAL	TOTAL	----- RWY 04L -----			-RWY 04R-	----- RWY H4L -----				----- RWY H22R ---	
	DAILY	DAILY	ITIN.	ITIN.	LOCAL	LOCAL	ITIN.	ITIN.	ITIN.	LOCAL	ITIN.	LOCAL
	OPS.	DEPART'S.	4LD2	4LD3	4LD5	4RD1	H4LD1	H4LD4	H4LD5	H4LD3	H22RD2	H22RD1
DAYTIME:												
C-130	9.70	4.85	0.00	0.00	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	0.34	1.63	3.75	0.41	0.66
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	102.82	51.41	0.00	8.05	0.00	23.58	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	46.59	28.53	0.00	86.49	0.00	0.00	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.81	7.33	0.00	1.98	1.16	0.35
TOT DAY:	541.26	270.63	46.59	36.58	1.23	110.07	0.81	7.67	1.63	5.73	1.57	1.01
NIGHT:												
C-130	0.30	0.15	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.12	0.01	0.02
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	3.18	1.59	0.00	0.25	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	1.44	0.88	0.00	2.67	0.00	0.00	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.03	0.23	0.00	0.06	0.04	0.01
TOT NITE:	16.74	8.37	1.44	1.13	0.04	3.40	0.03	0.24	0.05	0.18	0.05	0.03
24-HR TOT	558.00	279.00	48.03	37.71	1.27	113.47	0.84	7.91	1.68	5.91	1.62	1.04

A/C	TOTAL		----- RWY 22R -----				-RWY 22L-	-RWY 11-	---- RWY H4R ----		--- RWY H22L ---	
	DAILY OPS.	DAILY DEPART'S.	ITIN. 22RD2	ITIN. 22RD3	ITIN. 22RD4	LOCAL 22RD5	LOCAL 22LD1	ITIN. 11D5	ITIN. H4RD1	LOCAL H4RD2	ITIN. H22LD2	LOCAL H22LD1
DAYTIME:												
C-130	9.70	4.85	0.54	0.00	0.00	0.18	0.00	3.09	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.11	0.00	0.00	0.04	0.00	0.62	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	0.00	3.15	1.21	0.24	0.24
PA31/C402	102.82	51.41	1.42	0.00	2.13	0.00	4.16	12.07	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	5.03	8.22	0.00	0.00	15.27	0.00	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT DAY:	541.26	270.63	7.10	8.22	2.13	0.22	19.43	15.78	3.15	1.21	0.24	0.24
NIGHT:												
C-130	0.30	0.15	0.02	0.00	0.00	0.01	0.00	0.10	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.04	0.01	0.01
PA31/C402	3.18	1.59	0.04	0.00	0.07	0.00	0.13	0.37	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	0.16	0.25	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT NITE:	16.74	8.37	0.22	0.25	0.07	0.01	0.60	0.49	0.10	0.04	0.01	0.01
24-HR TOT	558.00	279.00	7.32	8.47	2.20	0.23	20.03	16.27	3.25	1.25	0.25	0.25

A/C	TOTAL	TOTAL	-RWY 04R-	----- RWY 04L -----				----- RWY H4L -----			--- RWY H22R ---	
	DAILY	DAILY	LOCAL	ITIN.	ITIN.	ITIN.	LOCAL	ITIN.	ITIN.	LOCAL	ITIN.	LOCAL
	OPS.	LAND'S.	4RA1	4LA2	4LA3	4LA4	4LA5	H4LA2	H4LA3	H4LA1	H22RA1	H22RA3
DAYTIME:												
C-130	9.70	4.85	0.00	0.00	0.00	3.09	1.03	0.00	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.00	0.00	0.00	0.62	0.20	0.00	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	2.04	0.34	3.75	0.00	0.66
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	102.82	51.41	23.58	8.05	0.00	12.07	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	86.49	28.53	46.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.00	1.16	7.33	1.98	0.81	0.35
TOT DAY:	541.26	270.63	110.07	36.58	46.59	15.78	1.23	3.20	7.67	5.73	0.81	1.01
NIGHT:												
C-130	0.30	0.15	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.12	0.00	0.02
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	3.18	1.59	0.73	0.25	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	2.67	0.88	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.00	0.04	0.23	0.06	0.03	0.01
TOT NITE:	16.74	8.37	3.40	1.13	1.44	0.49	0.04	0.10	0.24	0.18	0.03	0.03
24-HR TOT	558.00	279.00	113.47	37.71	48.03	16.27	1.27	3.30	7.91	5.91	0.84	1.04

CROSS CHECK:

279 = 279

A/C	TOTAL	TOTAL	----- RWY 22R -----		-RWY 22L-	-RWY 29-	----- RWY H4R ----		----- RWY H22L -----		
	DAILY	DAILY	ITIN.	ITIN.	LOCAL	LOCAL	ITIN.	ITIN.	LOCAL	ITIN.	LOCAL
OPS.	LAND'S.	22RA2	22RA3	22RA5	22LA1	29A5	H4RA2	H4RA1	H22LA1	H22LA3	
DAYTIME:											
C-130	9.70	4.85	0.00	0.00	0.18	0.00	0.54	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.00	0.00	0.04	0.00	0.11	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	3.15	1.21	0.24	0.24
PA31/C402	102.82	51.41	0.00	1.42	0.00	4.16	2.13	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	8.22	5.03	0.00	15.27	0.00	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT DAY:	541.26	270.63	8.22	6.45	0.22	19.43	2.78	3.15	1.21	0.24	0.24
NIGHT:											
C-130	0.30	0.15	0.00	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.10	0.04	0.01	0.01
PA31/C402	3.18	1.59	0.00	0.04	0.00	0.13	0.07	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	0.25	0.16	0.00	0.47	0.00	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT NITE:	16.74	8.37	0.25	0.20	0.01	0.60	0.09	0.10	0.04	0.01	0.01
24-HR TOT	558.00	279.00	8.47	6.65	0.23	20.03	2.87	3.25	1.25	0.25	0.25

Average Daily Operations at Kalaeloa Airport (2020)

Large Airport Alternative

A/C	TOTAL	TOTAL	----- RWY 04L -----				-RWY 04R-	----- RWY H4L -----				----- RWY H22R -----	
	DAILY	DAILY	ITIN.	ITIN.	ITIN.	LOCAL	LOCAL	ITIN.	ITIN.	ITIN.	LOCAL	ITIN.	LOCAL
OPS.	DEPART'S.	4LD2	4LD3	4LD5	4LD4	4RD1	H4LD1	H4LD4	H4LD5	H4LD3	H22RD2	H22RD1	
DAYTIME:													
C-130	9.70	4.85	0.00	0.00	3.09	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.00	0.00	0.62	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	0.00	0.34	1.63	3.75	0.41	0.66
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	102.82	51.41	0.00	8.05	12.07	0.00	23.58	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	46.59	28.53	0.00	0.00	86.49	0.00	0.00	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.00	0.81	7.33	0.00	1.98	1.16	0.35
TOT DAY:	541.26	270.63	46.59	36.58	15.78	1.23	110.07	0.81	7.67	1.63	5.73	1.57	1.01
NIGHT:													
C-130	0.30	0.15	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.12	0.01	0.02
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	3.18	1.59	0.00	0.25	0.37	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	1.44	0.88	0.00	0.00	2.67	0.00	0.00	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.00	0.03	0.23	0.00	0.06	0.04	0.01
TOT NITE:	16.74	8.37	1.44	1.13	0.49	0.04	3.40	0.03	0.24	0.05	0.18	0.05	0.03
24-HR TOT	558.00	279.00	48.03	37.71	16.27	1.27	113.47	0.84	7.91	1.68	5.91	1.62	1.04

CROSS CHECK:

279 =

A/C	TOTAL	TOTAL	----- RWY 22R -----				-RWY 22L-	-- RWY H4R ---		-- RWY H22L ---	
	DAILY	DAILY	ITIN.	ITIN.	ITIN.	LOCAL	LOCAL	ITIN.	LOCAL	ITIN.	LOCAL
	OPS.	DEPART'S.	22RD2	22RD3	22RD4	22RD5	22LD1	H4RD1	H4RD2	H22LD2	H22LD1
DAYTIME:											
C-130	9.70	4.85	0.54	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.11	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	3.15	1.21	0.24	0.24
PA31/C402	102.82	51.41	1.42	0.00	2.13	0.00	4.16	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	5.03	8.22	0.00	0.00	15.27	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT DAY:	541.26	270.63	7.10	8.22	2.13	0.22	19.43	3.15	1.21	0.24	0.24
NIGHT:											
C-130	0.30	0.15	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.10	0.04	0.01	0.01
PA31/C402	3.18	1.59	0.04	0.00	0.07	0.00	0.13	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	0.16	0.25	0.00	0.00	0.47	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT NITE:	16.74	8.37	0.22	0.25	0.07	0.01	0.60	0.10	0.04	0.01	0.01
24-HR TOT	558.00	279.00	7.32	8.47	2.20	0.23	20.03	3.25	1.25	0.25	0.25

A/C	TOTAL DAILY OPS.	TOTAL DAILY LAND'S.	-RWY 04R- LOCAL 4RA1	----- RWY 04L ----- ITIN. 4LA2	ITIN. 4LA3	ITIN. 4LA5	LOCAL 4LA4	----- RWY H4L ----- ITIN. H4LA2	ITIN. H4LA3	LOCAL H4LA1	--- RWY H22R --- ITIN. H22RA1	LOCAL H22RA3
DAYTIME:												
C-130	9.70	4.85	0.00	0.00	0.00	3.09	1.03	0.00	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.00	0.00	0.00	0.62	0.20	0.00	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	2.04	0.34	3.75	0.00	0.66
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	102.82	51.41	23.58	8.05	0.00	12.07	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	86.49	28.53	46.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.00	1.16	7.33	1.98	0.81	0.35
TOT DAY:	541.26	270.63	110.07	36.58	46.59	15.78	1.23	3.20	7.67	5.73	0.81	1.01
NIGHT:												
C-130	0.30	0.15	0.00	0.00	0.00	0.10	0.03	0.00	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.12	0.00	0.02
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PA31/C402	3.18	1.59	0.73	0.25	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	2.67	0.88	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.00	0.04	0.23	0.06	0.03	0.01
TOT NITE:	16.74	8.37	3.40	1.13	1.44	0.49	0.04	0.10	0.24	0.18	0.03	0.03
24-HR TOT	558.00	279.00	113.47	37.71	48.03	16.27	1.27	3.30	7.91	5.91	0.84	1.04

CROSS CHECK:

279 = 279

A/C	TOTAL	TOTAL	----- RWY 22R -----				-RWY 22L-	--- RWY H4R ---		--- RWY H22L ---	
	DAILY OPS.	DAILY LAND'S.	ITIN. 22RA2	ITIN. 22RA3	ITIN. 22RA4	LOCAL 22RA5	LOCAL 22LA1	ITIN. H4RA2	LOCAL H4RA1	ITIN. H22LA1	LOCAL H22LA3
DAYTIME:											
C-130	9.70	4.85	0.00	0.00	0.54	0.18	0.00	0.00	0.00	0.00	0.00
C-26	1.94	0.97	0.00	0.00	0.11	0.04	0.00	0.00	0.00	0.00	0.00
CH-47	13.58	6.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	9.70	4.85	0.00	0.00	0.00	0.00	0.00	3.15	1.21	0.24	0.24
PA31/C402	102.82	51.41	0.00	1.42	2.13	0.00	4.16	0.00	0.00	0.00	0.00
C172/PA28	380.24	190.12	8.22	5.03	0.00	0.00	15.27	0.00	0.00	0.00	0.00
BELL	23.28	11.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT DAY:	541.26	270.63	8.22	6.45	2.78	0.22	19.43	3.15	1.21	0.24	0.24
NIGHT:											
C-130	0.30	0.15	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00
C-26	0.06	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CH-47	0.42	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HH-65A	0.30	0.15	0.00	0.00	0.00	0.00	0.00	0.10	0.04	0.01	0.01
PA31/C402	3.18	1.59	0.00	0.04	0.07	0.00	0.13	0.00	0.00	0.00	0.00
C172/PA28	11.76	5.88	0.25	0.16	0.00	0.00	0.47	0.00	0.00	0.00	0.00
BELL	0.72	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOT NITE:	16.74	8.37	0.25	0.20	0.09	0.01	0.60	0.10	0.04	0.01	0.01
24-HR TOT	558.00	279.00	8.47	6.65	2.87	0.23	20.03	3.25	1.25	0.25	0.25

AGREEMENT between the STATE DEPARTMENT OF TRANSPORTATION
and the BARBERS POINT REDEVELOPMENT COMMISSION

This AGREEMENT is made and entered into this 21st day
of January, 1999 by and between the state Department of
Transportation, by its Director of Transportation, hereinafter
"DOT" and the Barbers Point Redevelopment Commission, by its
chairperson, hereinafter "BPRC."

WITNESSETH:

Whereas, the United States Navy proposes to convey portions of
Naval Air Station Barbers Point to DOT for use as a state
airport, to be called Kalaeloa Airport.

Whereas, Kalaeloa Airport has an existing 8,330 foot runway
running from the northeast to the southwest, designated as
Runway 4R.

Whereas, the Naval Air Station Barbers Point Redevelopment Plan
adopted by the BPRC and dated March 1997 depicted Runway 4R as
being only 8,000 feet long, with a road around the southwest end
of Runway 4R and southwest corner of the future Kalaeloa Airport,
hereafter "perimeter road."

Whereas, the Federal Aviation Administration, hereafter "FAA,"
has certain review and approval functions as to DOT airports, and
the FAA's design criteria for Runway 4R's runway safety area and
object free area, in Runway 4R's present configuration, do not
allow a perimeter road open to the public.

Whereas, the DOT twice request FAA to waive these design criteria
to allow the construction of a perimeter road open to the public,
but the FAA denied these requests.

Whereas, the Kalaeloa Airport Layout Plan provides for a bikepath
and potential 2-lane perimeter road outside the Kalaeloa Airport
boundary fence, and the FAA conditionally approved this layout
plan on October 2, 1998, but expressly provided in its approval
that the public could not use any road within Runway 4R's runway
safety area or object free area.

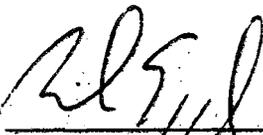
Whereas, design options for a perimeter road open to the public include a BPRC approved 26 foot wide right-of-way for a future public perimeter road, outside the Kalaeloa Airport boundary fence and adjacent to the shoreline in the 40 foot wide shoreline setback area, subject to this memorandum of agreement's terms.

Whereas, the FAA interprets existing federal laws to prohibit the use of airport revenues on facilities or services outside public airport boundaries, except where a public airport's contribution to a group financial approach clearly and directly benefits that public airport.

Now therefore, the DOT and BPRC agree as follows:

DOT and BPRC will cooperate in examining all reasonable design, construction, and funding alternatives for a 2-lane perimeter road open to the public. DOT and BPRC understand and agree that such alternatives must comply with FAA safety, design, and revenue diversion criteria. DOT and BPRC further agree that if Kalaeloa Airport property is necessary for a perimeter road open to the public, the FAA will need to issue a release of that property. Any perimeter road will be constructed when DOT and BPRC have adequate resources and they have obtained appropriate administrative and environmental approvals. DOT and BPRC will make a good faith effort to frame and schedule a road construction within five (5) years from the date of this document.

BARBERS POINTS
REDEVELOPMENT COMMISSION

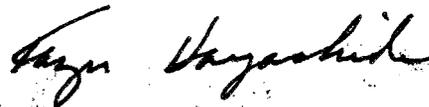


RICK EGGED
Chair

January 21, 1999

Date

STATE DEPARTMENT OF
TRANSPORTATION



KAZU HAYASHIDA
Director of Transportation

January 21, 1999

Date