Naval Air Station Alameda Alameda, California Region 9 CA2170023236

Site Exposure Potential

Naval Air Station (NAS) Alameda occupies the western tip of Alameda Island in Alameda County, California (Figure 1). Contamination may be present at 20 locations on the base, including storage areas, maintenance and power facilities, and some areas, such as Oakland Inner Harbor, that could have been contaminated by spills or runoff. Some of the sites have no record of toxic chemicals being released into the environment (DNWD 1988).

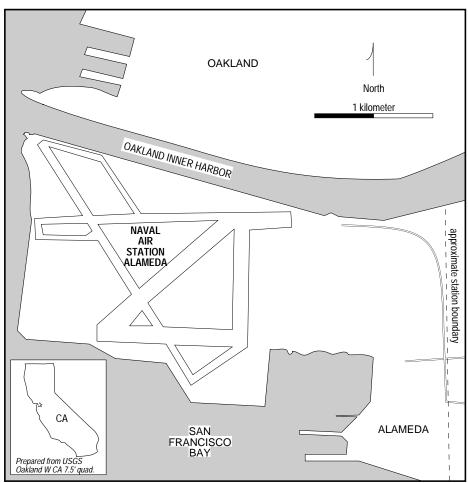


Figure 1. The Naval Air Station Alameda site in Alameda, California.

Alameda Island is on the eastern side of central San Francisco Bay and is separated from the mainland by Oakland Inner Harbor, an inlet of the bay. The NAS occupies 1,066 hectares (618 hectares on land and 448 hectares in the water). The station is flat, with elevations between 3 and 4.5 meters above sea level. Most of the dry land is reclaimed marsh and open water that has been filled. A large part of the fill used in this reclamation was dredge spoils from San Francisco Bay and Oakland Inner Harbor. There is no significant natural surface water drainage within the station. Precipitation is removed by infiltration, runoff, and artificial storm drainage. It is generally believed that all surface and groundwater is discharged into the surrounding bay and estuary (DNWD 1988).

Possible contaminant migration pathways to NOAA trust resources are groundwater flow and surface runoff to Oakland Inner Harbor and San Francisco Bay.

Site-Related Contamination

Contaminants of concern to NOAA include trace metals, PCBs, pesticides, and volatile and semi-volatile organic compounds (DNWD 1988). No information was available regarding contaminant concentrations.

NOAA Trust Habitats and Species in Site Vicinity

San Francisco Bay is an estuarine environment providing nursery, adult, and spawning habitat for NOAA trust resources (Table 1). The southern bay area is used mostly as a seasonal nursery ground. Smelt and herring spawn in the central areas of the bay and use the nearshore estuaries for juvenile growth. Several flatfish species also use the nearshore area as juvenile nursery grounds and as adult habitat. Sea perch use the area year-round and can often be found just beyond the intertidal zone. Leopard sharks, dogfish, and bat rays are relatively shallow-water carnivores that feed on smaller fish and benthic invertebrates along the mud flats during high tide. Commercially important shrimp species are also found in San Francisco Bay, with juveniles present in nearshore waters and adults in the central portions of the bay. Pacific salmon and steelhead trout use the bay as a migratory route (USFWS 1981). Harbor seals in the southern part of the bay would only be found near the site when moving through the area (Lecky 1989).

Table 1. NOAA trust resources in San Francisco Bay near NAS Alameda (USFWS 1981).

	Spawning	Nursery	Adult	Migration	Commercial	Recreational
Species	Area	Area	Area	Route	Fishery	Fishery
INVERTEBRATES						
bay shrimp	X	X	Χ		Χ	Χ
bent-nose clam	Χ	X	Χ			
Dungeness crab		Χ				
rock crab	X	Χ	Χ			
soft-shell clam	Χ	Χ	Х			
FISH						
anchovy		X				
barred perch	X	X	Χ			
bat ray		X	Χ			
California tonguefish		X	Χ			
English sole		X	Χ			
jack smelt		X				
leopard shark		X	Χ			
Pacific herring		X				
Pacific salmon				X		
sand dab		X	Χ			
shiner perch	X	X	Χ			
starry flounder		X	Χ			
steelhead trout				X		
striped bass		X	X			X
sturgeon			X	X		X
spiny dogfish		X	Χ			
top smelt		Χ				
MAMMALS						
harbor seal			X			

Response Category: Federal Facility

Current Stage of Site Action: Not Determined

EPA Site Manager

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References

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Lecky, James, biologist, Marine Mammal Branch, National Marine Fisheries Service, NOAA, Los Angeles, California, personal communication, March 15, 1989.

USFWS. 1981. Pacific coast ecological inventory: San Francisco, California. Washington, D.C.: U.S. Fish and Wildlife Service. 1:250,000 scale map.