INTRODUCTION

The Department of the Navy (Navy) is responsible for planning and implementing cleanup actions to remediate contamination that may have resulted from historical operations at Naval Station Treasure Island (TI) (Figure 1). The Navy’s Installation Restoration (IR) Program has conducted environmental investigations at Site 13, which comprises the surrounding offshore sediments within the boundaries of Navy property off of TI (Figure 2). The investigations were conducted in cooperation with the California Environmental Protection Agency (Cal EPA) Department of Toxic Substances Control (DTSC), the Cal EPA Regional Water Quality Control Board (Water Board), and the United States Environmental Protection Agency (EPA).

In this Proposed Plan, the Navy proposes that no environmental cleanup action be taken for Site 13. This no action plan is proposed because the ecological risk assessment for the sediments concluded that the low chemical concentrations detected do not pose unacceptable risks to the environment based on current and future exposure pathways. With respect to possible human health risks, the offshore sediments at TI are submerged and there is minimal shoreline exposure that would enable humans to come into direct contact with the sediment. This Proposed Plan explains further why the Navy is proposing no action.

INVITATION TO COMMENT

The Navy invites you to participate by submitting comments on the Proposed Plan for no action for Site 13. The Navy is issuing this Proposed Plan pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to ensure that the public has an opportunity to comment on the Proposed Plan for no action to fulfill public participation requirements. The Navy invites you to attend a public meeting scheduled on April 20, 2004 at 6:00 p.m. at the Casa de la Vista, Building 271, on TI to discuss this Proposed Plan. The 30-day public comment period will end April 30, 2004. This Proposed Plan highlights information from the final Remedial Investigation (RI) report for the Offshore Sediments Operable Unit dated December 28, 2001. For a detailed review, the final RI report is available for public review at the San Francisco Public Library information repository at 100 Larkin Street, San Francisco, California.

Note: All words that appear in bold print are defined in the glossary on page 5.
Figure 2

LEGEND
- Light blue: Site 13 Boundary
- Purple: Site 27 Boundary
- Gray: Building
- Road

Scale in Feet

San Francisco Bay
Clipper Cove
Submerged Land Reassigned to USCG
SITE BACKGROUND

Treasure Island is located in the central San Francisco Bay region, just north of the San Francisco-Oakland Bay Bridge. It resides within the City and County of San Francisco. TI was built in 1936 and 1937 on the Yerba Buena Shoals, a sand spit extending from the northwest point of Yerba Buena Island (YBI). It was used initially for the Golden Gate International Exposition in 1939. TI was leased to the Navy in 1941, which operated the facility for various activities throughout the years including the Naval Technical Training Center; waterfront facilities; troop and family housing; personnel support; a Navy brig; and a Navy and Marine Corps museum. The Navy gained title to TI in 1943. Naval operations were shut down in 1997. Reuse of the property is currently coordinated by the City of San Francisco.

In 1995 and 1996, potential sources of onshore contamination were identified through site investigations. These site investigations indicated that the sediment surrounding TI might have been affected by onshore activities. The offshore investigation area was defined as Site 13, consisting of approximately 538 acres of offshore sediments (Figure 2). Site 13 encompasses the offshore areas of sediment adjacent to TI with the exclusion of the Clipper Cove Skeet Range, Site 27, which is being investigated and documented separately and a submerged parcel that has been reassigned to the US Coast Guard (USCG) (Figure 2). A limited intertidal habitat composed of five docks, several pier pilings, and a riprap seawall is present along the entire perimeter of TI. A sandy beach/mudflat intertidal shoreline is present at the base of Clipper Cove and a portion of the southeastern and southwestern shores of YBI.

NATURE AND EXTENT OF CONTAMINATION

The major sources of sediment in San Francisco Bay are rivers and the resuspension of sediment by wind-driven waves from shallow portions of the bay. During the period from 1955 to 1990, an average of 7.88 million cubic yards of sediment flowed into the bay system annually from the Central Valley and local streams. Additionally, there is also significant movement of sediment within the bay. The shoreline along the northern, eastern, and southern regions of TI are net depositional areas, while the western shoreline, with the exception of an area immediately north of the San Francisco-Oakland Bay Bridge, is a net erosional area. Other minor sources of sediment to the central San Francisco Bay region include storm water run-off from adjacent onshore areas.

Environmental data collected between 1992 and 2002 were used to determine the extent of contamination in sediments and evaluate potential risks to the environment. During these investigations, offshore sediment, storm drain sediment, storm water, and porewater were sampled for chemical analyses and the results were evaluated to determine the risk they might pose on ecological receptors.

In 1992, the Navy collected data to assess the offshore sediments adjacent to all of the storm water outfalls around TI. Storm water, storm drain sediments, and offshore sediment samples were collected. Additionally, sediment samples were also collected in areas corresponding to specific operations that could have resulted in accidental discharge of chemicals into the Bay. The results from this sampling effort were used to identify chemicals that might potentially affect the environmental health at Site 13.

Based on the results of this storm water investigation, additional offshore sediment and porewater samples were collected during a second investigation in 1996 to further characterize the sources, extent, and potential toxicity of chemical contamination in the offshore sediment at Site 13. The sample locations were non-randomly located along transects extending offshore from storm water outfalls or potential onshore sources. More than 100 offshore locations were sampled.

The results of these two offshore investigations indicated that metals, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAH), dichlorodiphenyltrichloroethane (DDT), and other organics were the chemicals most frequently detected in sediment samples. The majority of samples where these chemicals were detected had low concentrations, when compared to the sediment screening criteria. The sample locations with detected levels of these chemicals were generally randomly distributed throughout Site 13.

Two additional investigations were conducted in 2001 and 2002 to assess specific areas identified by the regulatory agencies as still outstanding for the offshore sediments at TI. Specifically, the agencies requested the Navy further investigate the sediment adjacent to possible onshore source areas at Sites 11 and 12, which may have deposited burnt solid waste and/or PCB contaminated material. Offshore samples were collected and analyzed for metals, total petroleum hydrocarbons (TPH), and PCBs. Concentrations of metals, PCBs, and TPH in the offshore sediments were found not to be elevated. These studies indicated that no additional investigation was needed.

SUMMARY OF SITE RISKS

The RI report determined that there are no complete exposure pathways for humans from exposure to submerged sediments. Contact with the sediments would be minimal to none. An occasional or incidental contact would not provide a direct exposure pathway for humans. Thus, a human health risk assessment was not conducted.

As part of the RI, the Navy conducted an ecological risk assessment. This assessment evaluated the potential effects to the environment as a result of exposure to chemicals in the sediments at Site 13. The assessment of risk to ecological habitats evaluated chemicals of poten-
Under CERCLA, no action is appropriate for sites when there is no current or potential threat to human health or the environment. As previously mentioned, there is no risk to human health because contact with offshore sediments are minimal to none with no complete exposure pathway. Additionally, because sediments were believed to be the current source of site-related chemicals in the offshore habitats, food-chain modeling analysis focused on avian receptors with ingestion links to benthic invertebrates. Representative avian receptors, such as, the double-crested cormorant, willet, and peregrine falcon were used to calculate specific ingested doses of COPECs. After doses were calculated, risk to the avian receptors could be quantified.

The ecological risk assessment concluded that COPECs detected in the sediments posed an acceptable minimal risk to both benthic and avian receptors. In summary, based on the information and data evaluated as part of the Site 13 investigation at TI, the offshore sediments do not pose an unacceptable risk to the environment.

**DESCRIPTION OF THE NO ACTION PROPOSED PLAN**

Under CERCLA, no action is appropriate for sites when there is no current or potential threat to human health or the environment. As previously mentioned, there is no risk to human health because contact with offshore sediments are minimal to none with no complete exposure pathway. Additionally, the ecological risk assessment concluded that sediment offshore of TI does not pose an unacceptable risk to the environment. Therefore, no action is warranted for Site 13 at TI.

**MULTI-AGENCY ENVIRONMENTAL TEAM SUPPORTIVE STATEMENT**

The Base Realignment and Closure Cleanup Team (BCT) is comprised of the Navy, US EPA, and Cal EPA. The primary goals of the BCT are to protect human health and the environment, coordinate environmental investigations, and expedite the environmental cleanup at the Base. The BCT reviewed all major documents and activities associated with Site 13 including the RI. Based on these reviews and discussions on key documents, the BCT supports the Navy’s recommendation for no action at Site 13. The California Department of Fish and Game has also reviewed all major documents and activities associated with Site 13 and supports the recommendation.

**THE NEXT STEP FOR SITE 13, OFFSHORE SEDIMENTS**

The 30-day public comment period will end April 30, 2004. After the comment period has ended, the Navy will consider the comments received on this Proposed Plan before making a final decision for Site 13. The Navy’s decision will be recorded as a Record of Decision, which will include all of the comments received on this Proposed Plan, as well as the Navy’s responses. A public notice will be placed in the San Francisco Chronicle announcing when the Record of Decision is available to the public in the San Francisco Public Library information repository.
GLOSSARY

**Avian Receptors**: any bird species that may be exposed to site contaminants.

**Benthic Invertebrates**: sedimentary organisms that lack a spinal column such as mussels, crabs, and clams.

**Chemicals of Potential Ecological Concern**: chemicals selected to help calculate site risks to the environment based on their toxicity, mobility, and concentration.

**Comprehensive Environmental Response, Compensation, and Liability Act**: a law that establishes a program to identify hazardous waste sites and sets up procedures for cleaning up sites to be protective of human health and the environment.

**Dichlorodiphenyltrichloroethane**: DDT is a pesticide that was used commonly before it was banned in 1973. DDT may accumulate in living tissue (bioaccumulate) and is considered toxic to ecological receptors, especially fish and other aquatic organisms. The molecular structure of DDT is stable and resists common degradation processes in the environment. As a result, DDT is persistent in the environment even though it is no longer used.

**Ecological Receptors**: any ecological organism that may be exposed to site contaminants.

**Ecological Risk Assessment**: an evaluation of the likelihood that plants or animals exposed to contaminants from a site would suffer harm.

**Exposure Pathway**: the way in which a chemical comes into contact with a living organism, such as touching, breathing, and ingesting.

**Fate and Transport**: a description of the potential pathways and eventual fate of site chemicals.

**Food-Chain Modeling Analysis**: a method that allows risk assessors to estimate site contaminant exposure risks to ecological receptors.

**Human Health Risk Assessment**: an analysis of the potential negative human health effects caused by hazardous substances released from a site.

**Installation Restoration Program**: a U.S. Department of Defense program, which assesses and cleans up old hazardous waste disposal sites.

**Net Depositional Area**: an area on the shoreline that accumulates deposited sediment at a greater rate than sediment erodes.

**Net Erosional Area**: an area of the shoreline that loses sediment to erosion at a greater rate than sediment is deposited.

**Polychlorinated biphenyls**: compounds associated with electrical and hydraulic equipment. PCBs were previously used as coolants and lubricants because they are good insulators and do not burn easily. PCBs do not break down, so they may persist in the environments for long periods of time.

**Polycyclic Aromatic Hydrocarbons**: compounds typically associated with the incomplete combustion of fossil fuels. These compounds are stable and resist common degradation processes in the environment. Many PAHs will bioaccumulate and are toxic to humans and ecological receptors.

**Porewater**: water located interstitially with sediment.

**Receptors**: any organism (human or ecological) that may be exposed to site contaminants.

**Record of Decision**: a document containing the final decision and agreement among the installation, the State, and EPA concerning selection of the remedial action at a site. The Record of Decision is based on information from the RI and on public comments and concerns.

**Remedial Investigation**: an investigation in which the types, amounts, and locations of contamination at a site are identified.

**Sediment**: soil, sand, and minerals washed from land into water, usually after rain.

**Sediment Screening Criteria**: a concentration above which the sediment may pose a potential risk to the environment.

**Total Petroleum Hydrocarbons**: a black, naturally thick liquid hydrocarbon mixture that is flammable.

**Unacceptable Risk**: A quantification of potential harm to humans, animals, or plants from exposure to contaminants at elevated levels. An unacceptable risk means there is a threat to safety and an action must be taken.
FOR MORE INFORMATION

For more information on the environmental program at TI, the Proposed Plan, or the Record of Decision, please contact the following:

**Navy Contact:**
Ms. La Rae Landers  
1230 Columbia St., Suite 1100  
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(619) 532-0970  
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**RWQCB Contact:**
Ms. Sarah Raker  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
(510) 622-2377  
slr@rb2.swrcb.ca.gov

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**COMMUNITY PARTICIPATION**

In addition to the public meeting, in order to comment on the Department of the Navy’s Proposed Plan please fax, email, or mail your comments to:

**Navy Contact:**
Ms. La Rae Landers  
1230 Columbia St., Suite 1100  
San Diego, CA 92101-8517  
(619) 532-0970  
larae.landers@navy.mil

All comments must be postmarked by April 30, 2004

**DATES TO REMEMBER**

April 20, 2004  
Public meeting for comments on the Proposed Plan.

April 30, 2004  
All comments must be postmarked by April 30, 2004 for consideration.

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**COMMENTS:**

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Mailing Coupon

If you would like to be added to the Treasure Island/Yerba Buena Island mailing list and receive copies of future newsletters and fact sheets, please fill out the coupon below and mail it to:

Ms. La Rae Landers
1230 Columbia St. Suite 1100
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