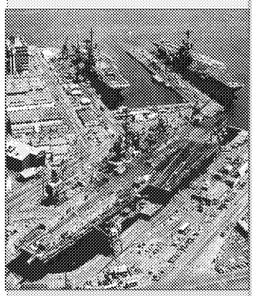
The Navy's goal is to clean up HPNS so the area can be redeveloped for San Franciscans to live, work, and play there.



USS Ranger, Hancock, and Coral Sea at HPNS, August 1971
photo credit: www.gunslot.com

Reaching Out to the HPNS Community

A detailed Community Involvement Plan, or CIP, was written in 2011 and updated in 2013 to help the Navy work more closely with the community. In 2016, the Navy conducted an internal review of the CIP and determined that communication strategies continued to support established outreach objectives. The CIP presents a description of the types of activities and outreach that the Navy will use to involve community members during the cleanup process at HPNS. For more information:

- **Attend a Community Meeting or Bus Tour**
  The Navy presents updates at scheduled community meetings to inform people about cleanup at HPNS. Meetings are held throughout the year, and bus tours are offered each summer. Check the Navy's HPNS website for the annual calendar of meetings, bus tours, and other events held in the community.
- **Call Our Local Information Line**
  The HPNS Info Line at **(415) 295-4742** provides up-to-date information about outreach activities planned for the shipyard, including Navy meeting information and bus tour announcements and registration. A message may also be left with any questions or comments on the HPNS Cleanup Program. The HPNS Info Line supports three languages: English, Spanish and Cantonese.
- **Join Our Email and Mailing Lists**
  If you would like to join the HPNS e-mail and/or USPS mailing list(s), please send your information to the Navy at **info@sfhpns.com**. This HPNS email address can also be used to communicate with the Navy, allowing community members to send questions or comments on cleanup activities, offer suggestions for a topic at an upcoming meeting, or sign up for a bus tour.
- **Visit Our Website**
  Program information is available on the HPNS pages of the Navy's website. This resource may be found online at **http://www.bracpmo.navy.mil**. *Once on the site, click on "BRAC Bases", click on "California", then select "Former Naval Shipyard Hunters Point".*

Reports Available for Review

San Francisco Main Public Library
Government Information Center, 5th Floor
100 Larkin Street
San Francisco, CA 94102
(415) 557-4500

Hunters Point Naval Shipyard Site Trailer
(near HPNS security entrance)
690 Hudson Avenue
San Francisco, CA 94124

Navy's HPNS Website
www.bracpmo.navy.mil
⇒ Click on "BRAC Bases"
⇒ Click on "California"
⇒ Select "Former Naval Shipyard Hunters Point"

contacts

The Navy and regulatory agencies working to clean up HPNS are available to answer questions.

Lily Lee
Project Manager
US EPA, Region 9
75 Hawthorne Street, Mailcode SFD-8-3
San Francisco, CA 94105
(415) 947-4187
lee.lily@epa.gov

Nina Bacey
Project Manager
California Department of Toxic Substances Control
700 Heinz Avenue
Berkeley, CA 94710-2721
(510) 540-2480
Juanita.Bacey@dtsc.ca.gov

Derek Robinson
BRAC Environmental Coordinator
Department of the Navy
BRAC Program Management Office West
33000 Nixie Way, Bldg. 50, 2nd Deck
San Diego CA 92147
(619) 524-6026
derek.j.robinson1@navy.mil

Tina Ures
Project Manager
San Francisco Bay
Regional Water Quality Control Board
1515 Clay Street, Ste. 1400
Oakland, CA 94612
(510) 622-2064
tina.ures@waterboards.ca.gov

有关海军在猎人角海军造船厂的清理活动方案的更多信息，
请拨打 (833) 350-6222 并留言。

Para más información sobre el programa de limpieza de la Marina en Hunters Point Naval Shipyard, favor de dejar un mensaje en (833) 202-5888.

2017 ANNUAL UPDATE OF CLEANUP ACHIEVEMENTS

HPNS info

Preparing for Tomorrow

what's inside

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Cleanup and Redevelopment

The Navy is committed to cleaning up the property that makes up HPNS and looks forward to completing the cleanup and transferring the parcels for redevelopment.

Program Successes to Date

- Transferred four parcels to the City of San Francisco: Parcel A (2004); Parcels D-2, UC-1 and UC-2 (2015)
- 10 Records of Decision (RODs) signed
- Removed 28 miles of sewer/storm drain lines, during which only 2% of piping required disposal as radioactive waste
- Removed more than 21,000 truckloads of soil in support of sanitary sewer and storm drain line removal; only 5% of soil required disposal as radioactive waste
- Removed more than 10,000 truckloads (to date) of soil and sediment from Parcel E-2
- Treated 8.6 million gallons of groundwater
- Closed 52 Petroleum Sites

Hunters Point Naval Shipyard (HPNS): A History of Maritime Service

The Hunters Point Naval Shipyard, or HPNS, is located on 934 acres of waterfront in the southeast corner of San Francisco, California. It was founded as a commercial dry dock in 1869 and owned privately by Union Iron Works and later Bethlehem Shipbuilding Company. The shipyard was purchased by the United States Navy in 1939, beginning its important role in service to our country. During World War II, the shipyard provided needed deep-water facilities between San Diego and Bremerton, Washington, where the Navy could conduct ship repair and maintenance of Naval vessels.

In addition to these activities, a portion of HPNS was used by the Naval Radiological Defense Laboratory (NRDL) from 1948 to 1969. NRDL decontaminated ships exposed to atomic weapons testing and also conducted research on the effects of radiation. The shipyard was an active Navy base until 1974. In 1976, much of the property was leased to a commercial ship repair company, Triple A Machine Shop, which repaired commercial and Naval vessels on the site until 1986 when the Navy reclaimed the shipyard.

Evaluating the Environment

In 1988, the former Shipyard entered the Base Realignment and Closure (BRAC) Program, a federal program created to oversee the cleanup and transfer of military installations to public or private entities for redevelopment. In 1989, the United States Environmental Protection Agency (USEPA) evaluated HPNS and placed it on the National Priorities List in response to concerns about the effects of past hazardous wastes created by historical shipyard activities by both the Navy and private companies. The Navy is completing its extensive investigation of contaminated areas of the base and cleaning up the land and groundwater where contamination is found. The Navy's cleanup program is tailored to meet the City of San Francisco's current Redevelopment Plan. The Redevelopment Plan can be found at http://sfocii.org.

Quick Community Resources

Navy HPNS Email: info@sfhpns.com
Navy HPNS Cleanup Info Line: (415) 295-4742
Navy Website: www.bracpmo.navy.mil

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The Navy and Agencies Involved in HPNS Cleanup

CERCLA and NPL

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, was created by Congress in 1980 to create a program to identify, investigate, and clean up hazardous wastes. The National Priorities List (NPL) was developed under CERCLA to guide the United States Environmental Protection Agency (USEPA) in determining which sites need additional investigation. The Navy's environmental cleanup at HPNS follows the requirements in CERCLA.

USEPA

The USEPA is the lead regulatory agency and provides federal oversight for the environmental cleanup at HPNS.

DTSC

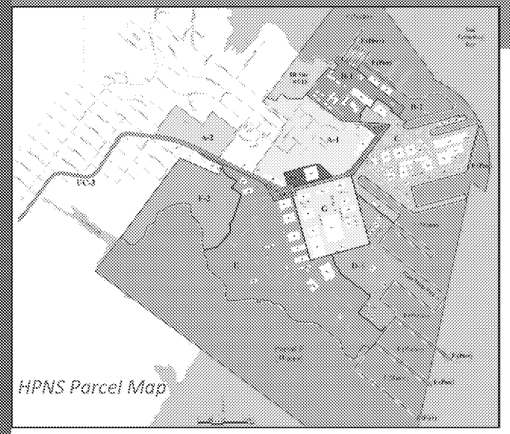
The California Department of Toxic Substances Control (DTSC) is the lead state agency that oversees the cleanup of hazardous wastes and ensures that California laws and regulations are followed.

Water Board

The San Francisco Bay Regional Water Quality Control Board (Water Board) is responsible for making sure that the waters of the Bay Area are clean and that laws and regulations are followed. The Water Board oversees cleanup activities that affect water and the Navy's Petroleum Program.

Coordination at HPNS

The Navy's BRAC Program manages the cleanup program at HPNS. The Navy works closely with USEPA, DTSC, Water Board, other agencies, and the City of San Francisco. Together, they ensure that HNPS will be safe for planned redevelopment activities.



HPNS Parcel Map

HPNS Parcel Background and Cleanup Status

There are currently nine parcels that the Navy is cleaning up at HPNS. When cleanup is completed, the property will be ready for redevelopment.

When HPNS was assigned to the BRAC Program, it was decided that the best way to manage the cleanup of the 934 acres would be to break it up into smaller areas, or parcels. HPNS is currently made up of nine parcels: Parcels B-1, B-2, C, D-1, E, E-2, F, G, and UC-3. Parcel A was cleaned up by the Navy and transferred to the San Francisco Redevelopment Agency (SFRA) in December 2004. Parcels D-2, UC-1, and UC-2 were transferred to the Office of Community Investment and Infrastructure, Successor Agency to the San Francisco Redevelopment Agency in 2015.

Parcels B-1 and B-2

Parcels B-1, B-2, and IR Site 07/18 (a subsite within Parcel B) were used to provide support and services for the repair and maintenance of submarines and ships.

Groundwater: Bioremediation complete (Parcel B-1); remediation ongoing (Parcel B-2); groundwater monitoring ongoing (Parcels B-1 and B-2)

Soil gas: Soil Vapor Extraction (SVE) ongoing (Parcel B-1)

Soil/sediment: Excavation and durable cover complete (Parcels B-1 and B-2)

Next steps: The Navy plans to complete the cleanup actions at B-1. The majority of Parcel B-1 and Installation Restoration (IR) Site 07/18 will be transferred to the City of San Francisco in 2018. A portion of Parcel B-1 called IR-10 and Parcel B-2 are still undergoing cleanup for soil-gas and groundwater contamination, respectfully. Transfer to the City of San Francisco is planned for 2019, after cleanup is complete at IR-10 and Parcel B-2.

Parcel C

Portions of Parcel C were used for ship repair and radiological research, as well as a power plant and machine, metalworking, and paint shops.

Groundwater: Bioremediation and groundwater monitoring ongoing

Soil gas: SVE ongoing

Soil/sediment: Excavation complete; portions durable cover remedy complete

Next steps: The Navy is anticipates the transfer of the parcel to the City of San Francisco in 2018.

Parcel D-1

Parcel D-1 was used for ship repair and maintenance, as well as radiological research.

Groundwater: Bioremediation complete; groundwater monitoring ongoing

Soil/sediment: Excavation ongoing; durable cover remedy planned for completion in 2018

Next steps: The Navy is completing cleanup actions at Parcel D-1 and anticipates transferring the parcel to the City of San Francisco in 2018.

Parcel E

Parcel E was used for industrial operations and radiological research.

Groundwater: Underground barriers, bioremediation, and thermal remediation upcoming

Soil gas: SVE upcoming

Soil: Excavation and durable cover upcoming

Radiological: Removal of the final remaining sections of the storm water and sanitary sewer lines is planned for 2017

Next steps: The Navy will begin the remedial design for cleanup of the parcel in 2017. The Navy anticipates all of the cleanup work at Parcel E to be complete and ready to transfer to the City of San Francisco by 2021.

Parcel E-2

Parcel E-2 is the site of the HPNS landfill.

Groundwater: One underground barrier complete; construction on the second underground barrier planned for completion in 2017

Soil gas: Mitigation upcoming

Soil and sediment: Excavation completed in 2016; durable cover and shoreline revetment walls upcoming

Next steps: The Navy began implementation of the remedy at Parcel E-2 in 2015. The Navy anticipates the transfer of Parcel E-2 to the City of San Francisco in 2019.

Parcel F

The portion of San Francisco Bay (off-shore area) surrounding HPNS. Historic shipyard activities, coupled with soil erosion, resulted in contamination of Bay sediment.

Sediment: Remedy pending

Next steps: The Navy will choose the cleanup remedy with agencies' concurrence and input from the public in 2017. The Navy anticipates the transfer of Parcel F to City of San Francisco in 2024.

Parcel G

Parcel G was used for ship repair and maintenance, as well as radiological research.

Groundwater: Bioremediation complete; groundwater monitoring ongoing

Soil: Excavation and containment complete

Next steps: Environmental cleanup is complete. The Navy plans to transfer Parcel G to the City of San Francisco in 2018.

Parcel UC-3

Parcel UC-3, more commonly known as Crisp Avenue, is a former utility corridor that served HPNS.

Soil: Focused excavation will begin in 2017; durable cover complete

Next steps: The Navy began the fieldwork associated with the remedial design for Parcel UC-3 in 2016. The Navy anticipates the transfer of Parcel UC-3 to City of San Francisco in 2018.

Common Remediation Technologies Used at HPNS

The Navy uses state of the art technologies to clean up contaminated soil, groundwater, and sediment at HPNS. A determination for the best cleanup solution is made based on several factors, including the type of contaminant(s), the contaminated medium (e.g.; soil or groundwater), the location, and the phase of cleanup. Technologies may be used alone or in conjunction with other methods to achieve the best possible cleanup solution. *A summary of several of the most common remediation technologies used at HPNS is provided below.*

Soil Vapor Extraction (SVE) involves applying a vacuum to the soil to create a steady controlled flow of air to remove volatile and some semivolatile organic contaminants.

Bioremediation enhances microorganisms in the ground to degrade/breakdown contaminants in soil and groundwater.

Durable cover is used at sites to contain the contaminants to reduce or minimize releases.

In situ chemical reduction involves the placement of a chemical under the ground surface to degrade toxic organic compounds, resulting in less toxic or nontoxic compounds.

Natural attenuation relies on natural processes to clean up or reduce pollution in soil and groundwater. Scientists monitor or test these conditions to make sure natural attenuation is working.

Stabilization involves the addition of chemicals to a solid material to contain contaminants and reduce access by external sources (e.g., air and water).

Thermal remediation uses heat to separate, destroy, or immobilize contaminants.

Contaminants Found at HPNS

The following hazardous wastes or contaminants relating to historical use at HPNS have been and/or are being investigated under the cleanup programs.

Metals: Includes elements such as copper, mercury, lead, manganese, and nickel. Metals are both naturally-occurring and related to shipyard activities. Although not metals, asbestos and arsenic are also present in soil. *(Present at Parcels B-1, B-2, C, D-1, E, E-2, F, G, and UC-3)*

Pesticides/Herbicides: Chemicals used to kill rodents, insects or unwanted plants. *(Present at Parcels B-1, B-2, C, E, and E-2)*

PCBs: Prior to banning in 1979, PCBs, or polychlorinated biphenyls, were commonly used to cool electrical equipment and lubricants. *(Present at Parcels B-1, B-2, C, E, E-2, and F)*

PAHs: Polycyclic aromatic hydrocarbons are a group of compounds created when oil, gasoline, garbage, wood or coal are burned. They are also present in tar and asphalt. *(Present at Parcels C, D-1, and G)*

Radionuclides: A radioactive element that occurs naturally or is man-made. *(Present at Parcels B-1, B-2, C, D-1, E, E-2, F, and G)*

SVOCs: Semi-volatile organic compounds are a class of organic chemicals that turn into vapor above room temperature. They are associated with petroleum products. *(Present at Parcels B-1, B-2, and C)*

TPH: Total petroleum hydrocarbons are a mixture of chemicals that come from crude oil. *(Present at Parcels B-2, C, E, E-2, and UC-3)*

VOCs: Volatile organic compounds are chemicals that easily evaporate into the air, for example, paint thinner. *(Present at Parcels B-1, B-2, C, D-1, E, E-2, and G)*

For additional information on these contaminants or the BRAC cleanup program at HPNS, visit *http://www.bracpmo.navy.mil.*

Cleanup Programs at HPNS

The Navy is investigating hazardous wastes at HPNS under three cleanup programs.

Base Cleanup Program

The Base Cleanup Program was created by the Department of Defense in 1986 to identify, evaluate, and cleanup contamination at US Navy and Marine Corps bases. The Base Cleanup Program meets the requirements of CERCLA. The chemicals regulated under CERCLA include things like chemicals used to manufacture solvents, pesticides, and metals.

Petroleum Program

The Petroleum Program, also referred to as the TPH Program, focuses on the cleanup of fuels left over from historical activities and uses. Former fueling stations, distribution lines, and maintenance areas may have leaked fuels, including diesel, gasoline, and motor oil into the soil and groundwater at HPNS. The Water Board oversees this portion of the cleanup.

Radiological Program

The Radiological Program focuses on identifying and cleaning up specific items that are radioactive, like glow-in-the dark buttons and dials, as well as buildings, sewers, storm drain lines, and buildings that were used by the Naval Radiological Defense Laboratory (NRDL) for radiological research that could have caused contamination from their activities.

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