

2018

ANNUAL  
UPDATE OF  
CLEANUP  
ACHIEVEMENTS

# HPNS info

Hunters Point Naval Shipyard

*Preparing for Tomorrow*

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## Cleanup and Redevelopment

The Navy is committed to completing cleanup of HPNS and looks forward to 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 sanitary sewer/storm drain lines
- ◆ Removed more than 21,000 truckloads of soil in support of sanitary sewer and storm drain line removal
- ◆ 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
- ◆ Created a comprehensive database of 70,000 radiological samples and 900,000 analytical results to confirm the accuracy of previously collected data

## Community Resources

HPNS Email: [info@sfpnps.com](mailto:info@sfpnps.com)

HPNS Information Line: (415) 295-4742

### Navy HPNS Web Pages

Main Page:  
[www.bracpmo.navy.mil/hpns](http://www.bracpmo.navy.mil/hpns)Radiological Cleanup Program:  
[www.bracpmo.navy.mil/hpnsrc](http://www.bracpmo.navy.mil/hpnsrc)

## 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.

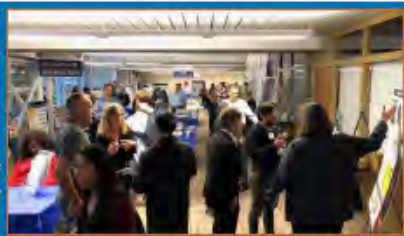
In addition to these activities, a portion of HPNS was used by the Naval Radiological Defense Laboratory (NRDL) from 1948 to 1969. NRDL decontaminated ships exposed to atomic weapons testing and also conducted research on the effects of radiation. The shipyard was an active Navy base until 1974.

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, which can be found on the Internet at <http://sfocj.org>.

*Navy HPNS  
Community Meeting  
Open Houses offer  
an opportunity for  
community  
members to ask  
questions directly of  
Navy and regulatory  
agency members*





## The Laws 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 HPNS will be safe for planned redevelopment activities.



## HPNS Parcel Background and Cleanup Status

There are currently nine active cleanup parcels at HPNS. When cleanup is complete, the property will be ready for transfer to the City of San Francisco 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 (OCII), Successor Agency to the San Francisco Redevelopment Agency, in 2015.

Development by OCII on Parcels D-2, UC-1, and UC-2 is currently on hold, pending additional radiological evaluation to verify the parcels are safe for planned redevelopment. *Read more about the ongoing radiological data evaluation at HPNS on Page 3 of this Annual Update, or visit the Navy's website at [www.bracpmo.navy.mil/hpnsrc](http://www.bracpmo.navy.mil/hpnsrc).*

### Parcels B-1 and B-2

Parcels B-1, B-2, and Installation Restoration (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. Parcels B-1 and B-2 have been further sub-divided to assist with property transfer activities: subsites include IR-10 (Parcel B-1) and IR-26 (Parcel B-2). Parcels B-1 and B-2 (excluding IR-10 and IR-26) will transfer to the City of San Francisco first, followed by the IR sites upon completion of cleanup.

**Groundwater:** Bioremediation complete (Parcel B-1, IR-10); 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:** Additional cleanup and monitoring to continue at IR-10 and IR-26

**Anticipated Transfer Date:** Parcel B-1 (excluding IR-10) - early 2019; IR-07/18 - early 2019; Parcel B-2 (excluding IR-26) - early 2019; IR-26 - late 2019; IR-10 - 2021

## 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 (for example, 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 semi-volatile organic contaminants

**Bioremediation** enhances microorganisms in the ground to degrade and/or 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 (for example: air and water)

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



## Cleanup Programs on HPNS

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

### Base Cleanup Program

The Installation Restoration (IR) Program was created by the Department of Defense in 1986 to identify, evaluate, and cleanup contamination at US Navy and Marine Corps bases. The IR 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 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.

### 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; durable cover remedy complete

**Radiological:** Building 253/211 is undergoing additional characterization and cleanup beginning in 2018; a small section of remaining sanitary sewer/storm drain line will be removed in 2018

**Next steps:** Complete radiological work and sampling

**Anticipated Transfer Date:** 2020

### 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 complete; approximately half of the durable cover remedy is complete; the remaining portions will be completed in 2018

**Radiological:** All radiological work is complete

**Next steps:** Complete remaining cleanup actions

**Anticipated Transfer Date:** 2019

### 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 final remaining sections of storm water and sanitary sewer lines planned for 2018

**Next steps:** The Navy is completing the remedial design for cleanup of the parcel; fieldwork for the first stage of cleanup will begin in 2018

**Anticipated Transfer Date:** 2023

### Parcel E-2

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

**Groundwater:** Construction of underground barriers complete

**Soil gas:** Evaluation and mitigation upcoming

**Soil and sediment:** Excavation completed in 2016; shoreline revetment completed in 2017; durable cover upcoming

**Radiological:** Conduct surface scan of HPNS landfill area to ensure it is safe for future reuse as a public park and green space

**Next steps:** Continue with construction of the site remedy

**Anticipated Transfer Date:** 2021

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## Radiological Data Evaluation

In 2012, as a part of its regular review of contractor data, the Navy learned of a discrepancy in radiological sampling by one contractor, Tetra Tech EC (TTEC). Sampling data in question was reviewed and initial corrective actions were taken by TTEC. In 2016, a former TTEC contractor made additional claims about the work done in 2012. In response to these allegations, the Navy hired an independent team of contractors to review and evaluate the reliability of the radiological data collected by TTEC.

During 2017, the technical team gathered data, compiled a database of radiological soil samples and radiological scans, analyzed data, and evaluated findings.

### Extent of Evaluation

Eight parcels on HPNS are included in the radiological data evaluation: Parcel B (inclusive of Parcels B-1 and B-2, as well as the IR Sites associated with those parcels), Parcel C, Parcel D-2,

Parcel E, Parcel G, and the three utility corridors - Parcels UC-1, UC-2, and UC-3.

### Evaluation Results

After reviewing more than 900,000 analytical results, evidence of data falsification was found in additional locations not previously identified. Past laboratory data quality and sample procedures complicate information already in question. Potential falsification of data and other issues have created uncertainty for all radiological data collected by TTEC.

### Next Steps

Due to the lack of confidence in these results, next steps are currently under development and include additional evaluation and sampling, beginning in 2018. The Navy's goal for this process is to verify that the parcels are safe for planned reuse before the property is transferred to the City of San Francisco.

For information on the Navy's radiological data evaluation at HPNS, visit <http://www.bracpmo.navy.mil/hpnsrc>.

The Navy's goal throughout the cleanup process is to ensure that all parcels are safe for planned reuse before they are transferred to the City of San Francisco for redevelopment.

## Reaching Out to the HPNS Community

The Navy has an extensive outreach program to communicate program updates and information to community members, provide opportunities for participation in public review of Navy documents, and encourage public participation in Navy meetings and events.



### • Attend a Community Meeting or Bus Tour

The Navy presents updates at scheduled community meetings to inform people about cleanup at HPNS several times throughout the year, and bus tours are offered each summer. Check the Navy's website for the annual calendar of events held in the community.

### • Call the 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. The Info Line supports questions or comments on the HPNS Cleanup Program in English, Spanish, or Cantonese.

### • Join Our Email and Mailing Lists

If you would like to send a question or comment to the Navy about the cleanup at HPNS, or join an HPNS distribution list, send your contact information to the Navy at [info@sfnhps.com](mailto:info@sfnhps.com).

### • Visit the HPNS Website

Information on the Navy's environmental cleanup at HPNS is available on the Navy's website at [www.bracpmo.navy.mil/hpns](http://www.bracpmo.navy.mil/hpns). Information on the HPNS Radiological Cleanup Program may be found on dedicated pages at [www.bracpmo.navy.mil/hpnsrc](http://www.bracpmo.navy.mil/hpnsrc).

### • Review a Navy HPNS Report

HPNS documents available for public review may be found at the following locations:

**San Francisco Public Library**  
Government Information Center  
5th Floor, 100 Larkin Street  
San Francisco, CA 94102  
(415) 557-4400

**The Shipyard Site Trailer**  
(near HPNS security entrance)  
680 Hudson Avenue  
San Francisco, CA 94124

**Navy's HPNS Website**  
[www.bracpmo.navy.mil/hpns](http://www.bracpmo.navy.mil/hpns)

**HPNS Radiological Cleanup Program Web Pages**  
[www.bracpmo.navy.mil/hpnsrc](http://www.bracpmo.navy.mil/hpnsrc)

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### 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 regulatory agencies' concurrence and input from the public in 2018

**Anticipated Transfer Date:** 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:** Complete radiological evaluation; all other environmental cleanup complete

**Anticipated Transfer Date:** 2019

### Parcel UC-3

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

**Soil:** Focused excavation complete; durable cover complete

**Next steps:** Complete radiological evaluation; all other environmental cleanup complete

**Anticipated Transfer Date:** 2019

## contacts

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



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Guided HPNS Bus Tours provide an opportunity to observe the Navy's cleanup activities and historical buildings at the former shipyard

有关海军在猎人角海军造船厂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.