SFUND RECORDS CTR
2356605

QUARTERLY PROGRESS REPORT
INDIA BASIN NEIGHBORHOOD ASSOCIATION

Report Number: 7 **Date**: October 8, 2011
Report Period: April 1 2011 - June 30, 2011

Site: Hunters Point Shipyard, San Francisco
Grant Recipient: India Basin Neighborhood Association
Recipient Group Representative: Alex Lantsberg
Technical Advisor: Arc Ecology

Progress Achieved:
If we could apply a single unifying theme to this period it would have to be refining implementation. The period of January through March of this year focused largely on refining the work plan, selecting and reviewing documents, and the frequency and focus of fact sheets. In this last period we moved to the next phase, focusing on implementation and improving our practices including: reviewing documents, refining a system for the cooperative editing of fact sheets, producing fact sheets for IBNA's distribution, and commentary. Fact sheets finalized during the 2nd Quarter are attached with this report. The Following provides a listing of the documents reviewed, the fact sheets produced, and the meetings attended during the 2nd quarter of 2011.

- Document Review:
  - MARSSIM protocol for radiological clearance of contaminated sites,
  - Parcel G RACR.
  - Bldng 810 report;
  - Final E-2 RI/FS.
  - Parcel G radiological remediation completion report RACR (29,630 pp.)
  - UC-1 and UC-2 FOST
  - Community Involvement Plan.
  - E-2 RI/FS & Final and RTCs;
  - Parcel F Pier Removal work plans and status reports;
  - E/E-2 Groundwater Reports;
  - IR7/18 cover project status
  - Bldng 140 and discharge channel status reports

- Fact Sheet Production
  - Parcel C RU-C1 treatability study:
  - Parcel G RD LUC: writing and transferring text to fact sheet template
  - Parcel E-2 RI/FS: read/review E-2 RI/FS & rad addendum for subsequent fact
  - B&G FOSET fact sheet

- Community Outreach and Presentations
    - April BCT Meeting
    - Navy Community meeting
    - April CAC and CAC Excom Meetings, present TAG info
    - BCT meeting
    - May CAC and CAC Excom Meetings, present TAG info
    - June BCT meeting and HPS site walk
    - June CAC and CAC Excom Meetings, present TAG info

Materials Produced this Quarter:

- Parcel C RU-C1 treatability study:
- Parcel G RD LUC: writing and transferring text to fact sheet template
- Parcel E-2 RI/FS: read/review E-2 RI/FS & rad addendum for subsequent fact
- B&G FOSET fact sheet

Difficulties Encountered:

- NONE.

Environmental Results Achieved:

- NONE

Activity Anticipated in Next Quarter:

The cleanup of Hunters Point Shipyard is entering a critical administrative decision making process. The Parcel E2 Proposed Plan is now on the street and available for public comment. Parcel E2, of course, contains the industrial dump that burned in 2000. There is perhaps no single element of the Hunters was initially scheduled to close on October 24th but was extended as a result of public concern. There will be a series of public meetings on this subject. During the 3rd quarter IBNA will focus on commentary on the Parcel E2 proposed plan, informing BVHP residents and the general public about the technical advisor's analysis.

IBNA is concerned that none of the public venues will provide equal discussion time between Navy and City technical staff and consultants advocating the plan proposed by the Navy, and technical experts that question the efficacy of the proposed plan. IBNA's technical advisor believes that the best solution to this problem is the one that makes the most technical sense for the site and is on the record as being skeptical about the efficacy of the plan proposed by the Navy but are open to being convinced. As such, in addition to conducting its own internal review and producing a TAG fact sheet on the issues associated with the proposed plan, IBNA will consider organizing or participating in a workshop that provides equal weight to all considerations and perspectives regarding the proposed plan to more fully inform the public's discussion, San Francisco Board of Supervisors consideration, and the Navy's administrative process.

It is important to note that available TAG funds are exhausted as of September 2011 while this process is ongoing and will continue for several more weeks at a minimum. Further, the entire cleanup process will continue for the foreseeable future and numerous cleanup documents will produced in the coming months and years. As a result, IBNA is currently preparing a TAG renewal application that will be submitted in the next few weeks.

INDIA BASIN NEIGHBORHOOD ASSOCIATION

San Francisco, California

Environmental Protection Agency
Technical Assistance Grant
Hunters Point Shipyard
Fact Sheet

www.epa.gov/superfund/community/tag/index.ht

Draft Parcel B and G Finding of Suitability for Early Transfer
December 16, 2010

Introduction

This fact sheet provides a brief summary of the draft finding of suitability for early transfer (FOSET) of Parcel B (excluding sites 8 and 17) and for early transfer of Parcel G of the Hunters Point Shipyard Superfund Site. The report was prepared by the U.S. Navy. The FOSET was prepared to document the readiness of the parcels to be transferred to the San Francisco Redevelopment Agency (SFRA) according to all relevant and appropriate state and federal regulations including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), known as Superfund. The report also describes the readiness of the property for reuse with regard to laws regulating lead paint, asbestos, petroleum, and other hazardous materials not covered by Superfund law. The Navy is required to clean up contaminants that it spilled but does not usually do lead paint or asbestos abatement in buildings. That cleanup will be done by the new owners according to regulations that govern these substances. However, the Navy must disclose what it knows about these other contaminants as part of the FOSET report.

Share Your Opinion

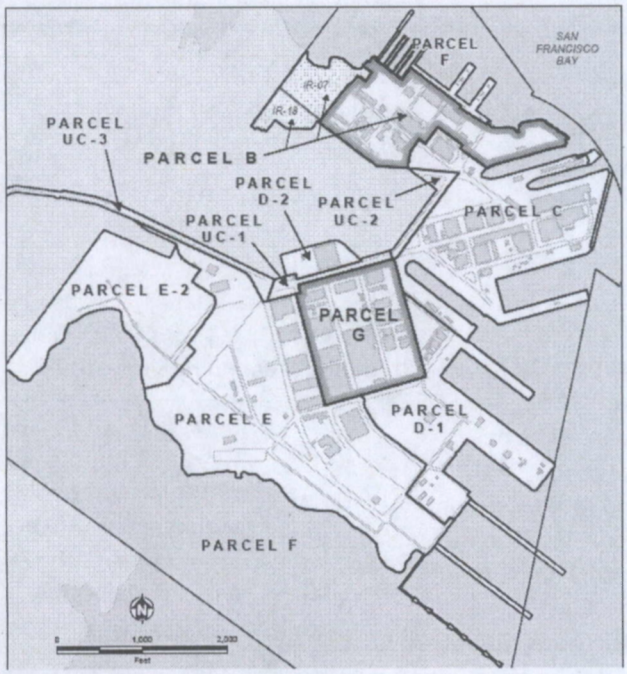
The official comment period has passed but you may still provide written comments on the Draft Parcels B and G FOSET Report to:
Keith Forman,
U.S. Navy BRAC Environmental Coordinator
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

Fax: (619) 532-0955
E-mail: keith.s.forman@navy.mil

Public involvement is required as part of the Superfund process. The U.S Environmental Protection Agency's Technical Assistance Grant program was established to inform communities near Superfund sites to assist their understanding and participation in the process.

Site Description and History

The Hunters Point Shipyard Site (HPS) is located on 866 acres on the west side of San Francisco Bay in San Francisco, California. About half of the site area is on land and half is under water. The site was used as a shipyard since the late 1800s. Beginning in 1940, the U.S. Navy used the HPS for a variety of purposes including shipbuilding, maintenance and repair of ships and submarines, and decontamination, storage, and disposal of radioactive and radiation testing materials. Over its years of use, HPS became contaminated with a variety of hazardous substances, causing it to be listed on the Superfund National Priorities List in 1989. The U.S. Navy is remediating the shipyard under the regulations of the Superfund law: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Parcels B and G are two of several parcels into which the site has been divided to speed up cleanup and transfer of the property to the San Francisco Redevelopment Agency. Sites 7 and 18 are parts of Parcel B that had different or more extensive kinds of contamination than the rest of Parcel B, so they are on a separate track for cleanup and transfer.



Parcel B is 40 acres, not including Sites 7 and 18. It was used for shipping, ship repair, training, barracks, and offices. Parcel G is also 40 acres in the center of what was previously called Parcel D before it was subdivided into D-1, D-2, G, and two utility corridors. Parcel G was used for shipping, ship repair, offices, and commercial activities.

Contamination at Parcels B and G

Hazardous materials that previously or presently occur here include metals and organic compounds in soil, vapor producing chemicals, and hexavalent chromium and petroleum in ground water, and possible radiological contamination of buildings and sewer and storm drains. Detailed descriptions of the contaminants and cleanup actions performed to date by the Navy are presented in the FOSET report and other reports referred to in the FOSET. These reports are available at the libraries listed below and from the Navy website. There is room for only a brief summary in this fact sheet.

The contaminants still needing cleanup at Parcels B and G include petroleum products, pesticides, asbestos, and lead-based paint. The Navy is cleaning up petroleum as part of its base wide program. The Navy will either clean up hazardous materials or will disclose knowledge of remaining hazardous materials such as pesticides, asbestos, and lead-based paint in soil and structures. The property transferee (SFRA) will be responsible for cleanup of these hazardous materials under the supervision of the California Department of Toxic Substances Control (DTSC) and the U.S. Environmental Protection Agency (EPA). This cleanup by SFRA will be supervised by the same state and federal agencies now overseeing the cleanup by the Navy and to the same standards the Navy would have to meet. The Navy will provide funding for the cleanup by SFRA.

Pesticides: Pesticide residues (traces) were found in soil at Parcels B and G and in shoreline sediment at Parcel B. The approved remedial design for the shoreline addresses pesticides in shoreline sediment. The Navy contends that the pesticide residues were the result of applying pesticides to manage the property before transfer. There was no evidence that pesticides had been applied inappropriately or contrary to the labeling on their packages.

Sand Blast Grit: Abrasive blasting was historically performed at HPS including when decontaminating ships from atomic weapons testing in the South Pacific. Approximately 90 tons of sand blast grit was removed from Parcel G from 1991 to 1995. All sand blast grit was tested for radioactivity but none was detected. Elevated levels of metals have been identified in spent abrasive blast material or sandblast grit at HPNS. Spent abrasive materials may have been used for pipeline bedding or backfill after excavations.

Radiological Materials: The Navy's Historical Radiological Assessment (NAVSEA 2004) described what radiological substances may have been present at one time at each of the parcels. Parcels B and G once may have contained cesium-137, cobalt-60, plutonium-239, radium-226, strontium-90, thorium-232, tritium (hydrogen-3), and uranium-235. A time-critical removal action has remediated all radionuclides at Parcels B and G. The final reports are currently being reviewed by state and federal regulators.

Lead-Based Paint: Any buildings built before 1978 are assumed to contain lead-based paint which was in common use up to that time. The Navy confirmed by testing that the buildings leased to the artists at the shipyard contain lead-based paint and window glazing. The Navy will reveal the potential presence of lead-based paint at Parcels B and G in the deeds to the property. The new owners will be responsible to the regulatory agencies to abate any hazards associated with the paint.

Asbestos-Containing Material: The Navy abated a great deal of asbestos-containing material in buildings at Parcel B and Parcel G. Any that remains will be the responsibility of the SFRA.

Radon: Radon is an odorless and colorless gas that that is a breakdown product of radium, an element that is found naturally in many rocks such as granite. In the atmosphere radon is diluted to harmless concentrations but it can build up to dangerous concentrations in enclosed building spaces such as basements. The Navy is not required to assess or mitigate for naturally occurring radon gas. Any radon from previously existing Ra-226 would have long since been dissipated in the atmosphere.

Storage Tanks and Pipelines: The Navy has removed or sealed many aboveground and underground storage tanks under the supervision of the Regional Water Board and the Department of Toxic Substances Control. Removal or closure of those remaining is underway.

Polychlorinated bi-phenyls: These long-lasting substances, abbreviated PCB, are now known to be toxic and to accumulate in the food chain, although they were formerly used widely in oils and electrical equipment such as transformers. The Navy or former tenants at HPS have addressed all PCB issues there by decontamination or removal.

Groundwater: Groundwater monitoring is ongoing in both parcels B and G. The only risks to human health identified at Parcel B are from drinking groundwater (which is prohibited by state and city

regulations) and from inhalation of volatile organic compounds that might become trapped in enclosed spaces of buildings. Institutional controls were selected in the Record of Decision (ROD) to address vapor inhalation exposure risks. The areas requiring institutional controls (ARICs) were mapped based on an extensive survey of soil gas. Risks to aquatic species in San Francisco Bay from contaminated groundwater are being managed by monitoring. At present, the rate of groundwater flow and the low concentrations of contaminants in the groundwater do not indicate a need for additional remediation.

Potential Issues for Community Concern: (1) this draft report does not contain the final results of the site-wide soil gas survey. The ARICs might change somewhat after the final report is released, but this is unlikely. These results will be included in the next draft report when available. There will be an opportunity to comment on the revised draft report after it is released. (2) The schedule for the FOSET (early transfer) may be delayed. This could result in a FOST, or ordinary Finding of Suitability for Transfer. The significance of the FOST is that the Navy would complete the cleanup before transferring the property to SFRA, potentially delaying development on the parcels.

The report is available in libraries (San Francisco Main, Bayview YMCA, and Portola) and online at: http://www.bracpmo.navy.mil/basepage.aspx?baseid=45&state=California&name=hps

The full title of the report is:

Draft Finding of Suitability for Early Transfer of Parcels B (Excluding Installation Restoration Sites 7 and 18) and G Hunters Point Naval Shipyard San Francisco, California, December 16, 2010.
Chaddux Tt Joint Venture, 1230 Columbia Street, Suite 1000, San Diego, California 92101. 82 pp.

The title of the report on possible radiological contamination at HPS is:

Naval Sea Systems Command (NAVSEA). 2004. *Final historical radiological assessment, volume II, history of the use of general radiological materials, 1939-2003, Hunters Point Shipyard, August 31.*

This document has been funded partly or wholly through the use of U.S. EPA Technical Assistance Grant funds. Its contents do not necessarily reflect the policies, actions, or positions of the U.S. Environmental Protection Agency. The India Basin Neighborhood Association does not speak for nor represent the U.S. Environmental Protection Agency. Arc Ecology prepared this fact sheet on behalf of the India Basin Neighborhood Association.

Discuss the report with a scientist (mikemcgowan@arcecology.org) at Arc Ecology, 1331 Evans Avenue, SF, CA 94124, (415) 643-1190.

Learn more about the local EPA Technical Assistance Grant: contact Jackie Lane: Lane.Jackie@epa.gov (415) 972-3236.

Visit the India Basin Neighborhood Association website http://www.indiabasin.org/ Email IBNA at info@indiabasin.org or telephone them at: (415) 938-6170.

INDIA BASIN NEIGHBORHOOD ASSOCIATION

San Francisco, California

Environmental Protection Agency
Technical Assistance Grant
Hunters Point Shipyard
Fact Sheet

www.epa.gov/superfund/community/tag/index.ht

Hunters Point Shipyard Parcel G Draft Removal Action Completion Report, April 8, 2011

Introduction

This fact sheet describes the draft Removal Action Completion Report (RACR) about the removal of storm and sewer lines and remediation for radiological materials at Parcel G at the Hunters Point Naval Shipyard. The report does not describe any other chemical contamination at Parcel G. The report summarizes how the removal actions will protect the public and the environment from actual or potential releases of radiological contaminants.

The U.S. Navy prepared the 29,630-page report. The report is part of the record of cleanup actions taken at the shipyard under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), known as Superfund. Public involvement is required in the cleanup of contaminated Superfund sites. The U.S Environmental Protection Agency's Technical Assistance Grant program was established to inform communities near Superfund sites to assist their understanding and participation in the process.

Share Your Opinion

Comments and questions on this report may be sent to:

Keith Forman, U.S. Navy BRAC Environmental Coordinator
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

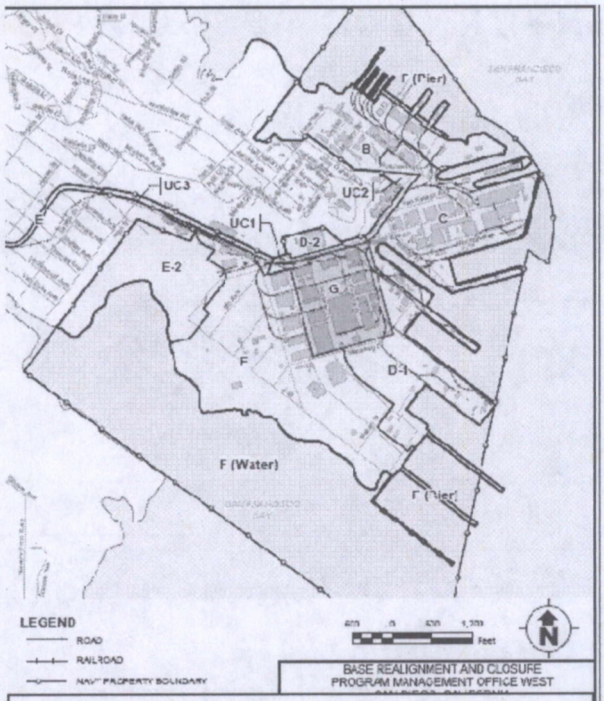
By Fax: (619) 532-0955

By E-mail: keith.s.forman@navy.mil

This document has been funded partly or wholly through the use of U.S. EPA Technical Assistance Grant funds. Its contents do not necessarily reflect the policies, actions, or positions of the U.S. Environmental Protection Agency. The India Basin Neighborhood Association does not speak for nor represent the U.S. Environmental Protection Agency. Arc Ecology prepared this fact sheet on behalf of the India Basin Neighborhood Association.

Site Description and History

Parcel G is one of several parcels into which the site has been divided to speed up cleanup and transfer of the site to the San Francisco Redevelopment Agency. The Hunters Point Shipyard Site (HPS) is located on 866 acres on the west side of San Francisco Bay in San Francisco, California. About half of the site area is on land and half is under water. The site was used as a shipyard since the late 1800s. Beginning in 1940, the U.S. Navy used the HPS for a variety of purposes including shipbuilding, maintenance, and repair of ships and submarines, and decontamination, storage, and disposal of radioactive and radiation testing materials. Over its years of use, HPS became contaminated with a variety of hazardous substances, causing the property it to be listed on the Superfund National Priorities List in 1989. The U.S. Navy is remediating the shipyard under the regulations of the Superfund law.



Location of Parcel G (Fig. 1-2 from the report by Tetra Tech EC cited below).

Parcel G is approximately 40 acres in the central part of the shipyard that consists of flat lowlands about 7-11 feet above sea level. It was constructed of fill from crushed serpentinite rock and dredged sediment. Parcel G was formerly part of the industrial support area at HPS and was used for shipping, ship repair, and office and commercial activities. Now the parcel is approximately 50% covered with degraded asphalt paving that is beyond repair and some buildings.

Contamination and Cleanup at Parcel G

Low level radiological contamination in the storm and sewer lines and in some buildings are the concern addressed in the RACR. The only effective method to remediate this is removal with proper off-site disposal.

Storm Drains and Sewer Lines

Storm drains and sewer lines were never completely separated during the history of the shipyard so all of them had to be considered potentially contaminated. They all needed to be excavated and tested as well as the soil above and around the pipes. Beginning June 2007 the Navy excavated 22,705 linear feet of storm drain and sewer lines and 49,296 cubic yards of soil. Approximately 7,000 cubic yards of excavated soil were disposed off-site as low level radioactive waste, the clean soil remaining was used to backfill the trenches after samples of the bottom of sides of trenches tested free of radioactivity. Approximately 3,400 cubic yards of soil excavated from the bottom and sides of the trenches were disposed of off-site as low level waste during this testing.

Buildings and Building Sites

Buildings 351, 351A, 366, 401, 408, 411, 439, and the site where Buildings 317/364/365 formerly stood were surveyed for radioactivity and have been cleared for unrestricted use (residential) by the California Department of Toxic Substances Control and by the California Department of Health. Concurrence by the U.S. Environmental Protection Agency is expected following review of the draft RACR.

Parcel G No Longer Radiologically Impacted Once the EPA concurs with the State that the property is unconditionally cleared for unrestricted use, then the Navy contends that the classification as "radiologically impacted" should be removed from Parcel G.

The full report *Draft Removal Action Completion Report April 8, 2011.* by Tetra Tech EC, San Diego is in these libraries: San Francisco Main, Bayview YMCA, and Portola, and online at: http://www.bracpmo.navy.mil/basepage.aspx?baseid=45&state=California&name=hps

Discuss it with a scientist (mikemcgowan@arcecology.org) at Arc Ecology 1331 Evans Avenue, SF, CA 94124, (415) 643-1190.

Learn more about the local EPA Technical Assistance Grant: contact Jackie Lane: Lane.Jackie@epa.gov (415) 972-3236.

Visit the India Basin Neighborhood Association website http://www.indiabasin.org/

Email IBNA at info@indiabasin.org or telephone them at: (415) 938-6170.

See other Fact Sheets in the IBNA TAG series for information about Groundwater Treatability Studies, Early Transfer for Parcels B and G, and other cleanup activities at Hunters Point Shipyard.

INDIA BASIN NEIGHBORHOOD ASSOCIATION

San Francisco, California

Environmental Protection Agency
Technical Assistance Grant
Hunters Point Shipyard
Fact Sheet

www.epa.gov/superfund/community/tag/index.ht

Parcel C RU-C1 Draft Anaerobic In Situ Treatability Study Report
January 27, 2011

Introduction

This fact sheet describes the results of a study to test a biological method to clean up contaminants in a portion of Parcel C at the Hunters Point Naval Shipyard. If the method works and is cost effective, then it could be used here and elsewhere on the shipyard instead of excavating the soil or pumping and treating the groundwater. The report was prepared by the U.S. Navy. This report is part of the record of cleanup actions taken at the shipyard under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), known as Superfund. Public involvement is required in the cleanup of contaminated Superfund sites. The U.S Environmental Protection Agency's Technical Assistance Grant program was established to inform communities near Superfund sites to assist their understanding and participation in the process.

Share Your Opinion

This report is final but comments and questions may be sent to:

Keith Forman, U.S. Navy BRAC
Environmental Coordinator
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

By Fax: (619) 532-0955

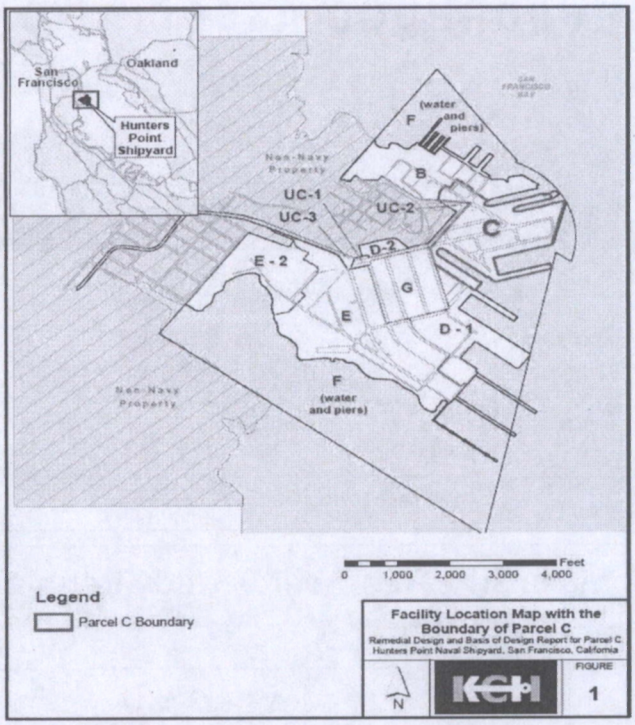
By E-mail: keith.s.forman@navy.mil

This document has been funded partly or wholly through the use of U.S. EPA Technical Assistance Grant funds. Its contents do not necessarily reflect the policies, actions, or positions of the U.S. Environmental Protection Agency. The India Basin Neighborhood Association does not speak for nor represent the U.S. Environmental Protection Agency. This fact sheet was prepared by Arc Ecology on behalf of the India Basin Neighborhood Association.

Site Description and History

The Hunters Point Shipyard Site (HPS) is located on 866 acres on the west side of San Francisco Bay in San Francisco, California. About half of the site area is on land and half is under water. The site was used as a shipyard since the late 1800s. Beginning in 1940, the U.S. Navy used the HPS for a variety of purposes including shipbuilding, maintenance and repair of ships and submarines, and decontamination, storage, and disposal of radioactive and radiation testing materials. Over its years of use, HPS became contaminated with a variety of hazardous substances, causing the property it to be listed on the Superfund National Priorities List in 1989. The U.S. Navy is remediating the shipyard under the regulations of the Superfund law.

Parcel C is one of several parcels into which the site has been divided to speed up cleanup and transfer of the site to the San Francisco Redevelopment Agency. Parcel C was formerly used for shipping, ship repair, offices, and



industrial activities including a foundry, a paint shop, and machine shops. The area of parcel C is approximately 73 acres including 70 buildings and several docks. The soil and groundwater are contaminated with metals and other chemicals. There is some radionuclide contamination of buildings and soil.

Contamination at Remedial Unit C1 The contamination in the groundwater at RU-C1 is thought to have come from two underground storage tanks, since removed, that were north of Building 253 near the "C" in the figure from the report at left. The targets of this study were chemicals known as volatile organic compounds (VOC) that can be toxic if inhaled. They were used to clean parts and equipment at the shipyard and are similar to dry cleaning fluids. The shorthand names for these particular chemicals are PCE, TCE, DCE, and VC. Each has a chemical formula with two carbon atoms and 4, 3, 2, or 1 chlorine atoms: PCE has 4, TCE has 3, DCE has 2, and VC has 1. The chlorine atoms are responsible for the toxicity of these chemicals. The process being tested uses naturally occurring bacteria to replace the chlorine with hydrogen resulting in a relatively harmless gas: ethene. The bacteria get energy from the process, the chlorine is converted to salt, and the ethene goes into the atmosphere. There is some diesel oil, motor oil, and benzene at RU-C1, but they were not the focus of the treatability study. The method being studied, if successful, could be part of a comprehensive cleanup remedy that would include oil and benzene as well as these VOC chemicals. A separate Proposed Plan document will describe methods to address all contaminants that do not yet meet standards for reusing the property.

Methods Engineers drilled wells to inject a mix of bacteria and bacteria food and to monitor any chemical changes taking place after the injection. Samples were collected from the wells periodically to track the decomposition of PCE ->TCE->DCE->VC->ethene. This sequence of changes from four chlorines to zero is called a complete reductive dechlorination pathway. It indicates success by showing that the harmful fumes were converted to ethene gas that can blow away.

Results and Recommendations The complete reductive dechlorination pathway from PCE to ethene was observed during the study. However, chlorinated ethenes (including VC) still remained in area groundwater 90 days after injection of food + bacteria. The report said possible explanations for these results were that the biological and chemical reactions may need more time to complete their work, or some of these substances may have migrated in from outside the original treatment area. A longer monitoring period and a wider sampling area would be needed to answer these questions and to validate a full-scale use of the method. The TAG technical representative, Dr. McGowan (mikemcgowan@arcecology.org), also questioned whether ethene gas is completely harmless, or whether we should be concerned about this greenhouse gas contributing significantly to global climate change.

The full report titled *Draft In Situ Anaerobic Bioremediation Treatability Study Completion Report, Remedial Unit C1, Building 253, Hunters Point Shipyard, San Francisco, California, January 2011* is in libraries (San Francisco Main, Bayview YMCA, and Portola), and online at: http://www.bracpmo.navy.mil/basepage.aspx?baseid=45&state=California&name=hps

Discuss it with a scientist (mikemcgowan@arcecology.org) at Arc Ecology 1331 Evans Avenue, SF, CA 94124, (415) 643-1190.

Learn more about the local EPA Technical Assistance Grant; contact Jackie Lane: Lane.Jackie@epa.gov (415) 972-3236.

Read about the India Basin Neighborhood Association: http://www.indiabasin.org/. or email alex@indiabasin.org , or telephone: (415) 938-6170.

INDIA BASIN NEIGHBORHOOD ASSOCIATION

San Francisco, California

Environmental Protection Agency
Technical Assistance Grant
Hunters Point Shipyard
Fact Sheet

www.epa.gov/superfund/community/tag/index.ht

Draft Parcel C Remedial Design and Design Basis Report
March 2011

Introduction

This fact sheet provides a brief summary of the draft combined Remedial Design and Design Basis Reports for Parcel C of the Hunters Point Shipyard Superfund Site. The report was prepared by the U.S. Navy. The Remedial Design was prepared to implement the remedy for this parcel that is described in the 2010 Record of Decision (ROD). Both the ROD and the Remedial Design are documents that are required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), known as Superfund. Public involvement is required in the cleanup of contaminated Superfund sites. The U.S Environmental Protection Agency's Technical Assistance Grant program was established to inform communities near Superfund sites to assist their understanding and participation in the process.

Share Your Opinion

Provide a written comment on the Draft Remedial Design Report no later than May 5, 2011 to:

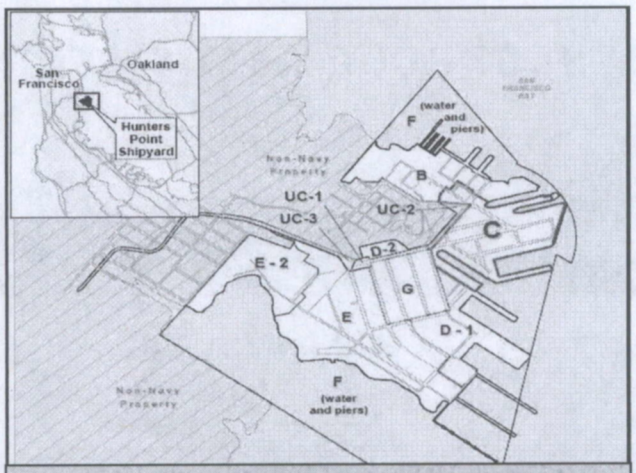
Keith Forman, U.S. Navy BRAC
Environmental Coordinator
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310

By Fax: (619) 532-0955

This document has been funded partly or wholly through the use of U.S. EPA Technical Assistance Grant funds. Its contents do not necessarily reflect the policies, actions, or positions of the U.S. Environmental Protection Agency. The India Basin Neighborhood Association does not speak for nor represent the U.S. Environmental Protection Agency. This fact sheet was prepared by Arc Ecology on behalf of the India Basin Neighborhood Association.

Site Description and History

The Hunters Point Shipyard Site (HPS) is located on 866 acres on the west side of San Francisco Bay in San Francisco, California. About half of the site area is on land and half is under water. The site was used as a shipyard since the late 1800s. Beginning in 1940, the U.S. Navy used the HPS for a variety of purposes including shipbuilding, maintenance and repair of ships and submarines, and decontamination, storage, and disposal of radioactive and radiation testing materials. Over its years of use, HPS became contaminated with a variety of hazardous substances, causing it to be listed on the Superfund National Priorities List in 1989. The U.S. Navy is remediating the shipyard under the regulations of the Superfund law: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Parcel C is one of several parcels into which the site has been divided to speed up cleanup and transfer of the property to the San Francisco Redevelopment Agency.



Location of Parcel C and other parcels at the Hunters Point Shipyard. Figure taken from the report: *Draft remedial design and design basis report for Parcel C, Hunters Point Naval Shipyard, San Francisco California. March 2011.* Report prepared for Department of the Navy, Base Realignment and Closure Program Management Office West San Diego, California. Prepared by CH2M HILL Kleinfelder, A Joint Venture (KCH) 1320 Columbia Street, Suite 310 San Diego, California 92101.

Parcel C was formerly used for shipping, ship repair, offices, and industrial activities including a foundry, a paint shop, and machine shops. The area of parcel C is approximately 73 acres including 70 buildings and several docks. The soil and groundwater are contaminated with metals and other chemicals. There is some radionuclide contamination of buildings and soil.

Summary of the Remedial Design

The remedy agreed to in the Record of Decision includes three components to address contaminants in soil and in groundwater, and radiological materials.

Soil Remedy: Excavation and offsite disposal, soil vapor extraction (SVE), covers, and institutional controls (ICs). SVE involves filtering gases through activated charcoal and disposing of the filters off site. Ongoing surveys of soil gas will determine if the SVE needs to continue after property transfer from the Navy. Institutional controls are legal prohibitions against using groundwater, growing food in native soil, excavating soil, or disturbing covers or other components of the remedies without permission.

Groundwater Remedy: Treatment of volatile organic compounds (VOCs) with zero valent iron (ZVI) or a biological substrate, monitored natural attenuation (MNA), and ICs. *ZVI* is finely powdered iron that accelerates the chemical breakdown of contaminants. *Biological substrate* is another term for sugar or other bacterial food that jump-starts the natural bacterial breakdown of contaminants. *MNA* is watchful waiting and monitoring to be sure that harmful concentrations of contaminants do not migrate beyond the boundaries of Parcel C before the various treatments and natural processes have reduced toxicity to safe levels.

Radiological Contaminants Remedy: Survey, decontaminate, excavate, and dispose as needed, followed by release for unrestricted use after review by state and federal authorities. This will be done by the base wide radiological program and is not described in this remedial design report for soil and groundwater. Separate fact sheets are planned to review the radiological reports when they are released.

Potential Issue for Community Concern This draft report does not contain the final results of an ongoing treatability study or the results of additional characterization studies scheduled for the summer of 2011. These results will be included in the next draft report when available. The remedial design may change somewhat from that presented in this report as a result of the new data. There will be an opportunity to comment on the revised draft report after it is released.

The report is in libraries (San Francisco Main, Bayview YMCA, and Portola) and online at: http://www.bracpmo.navy.mil/basepage.aspx?baseid=45&state=California&name=hps

Discuss it with a scientist (mikemcgowan@arcecology.org) at Arc Ecology 1331 Evans Avenue, SF, CA 94124, (415) 643-1190.

Learn more about the local EPA Technical Assistance Grant: contact Jackie Lane: Lane.Jackie@epa.gov (415) 972-3236.

Visit the India Basin Neighborhood Association website http://www.indiabasin.org/ Email IBNA at info@indiabasin.org or telephone them at: (415) 938-6170.