Notice of Draft Cleanup Plan
Pier 70 Redevelopment Area
San Francisco

March 2012

Introduction

This is the third in a series of fact sheets prepared by the Regional Water Quality Control Board, San Francisco Bay Region (Water Board) to inform the community and other interested parties of the environmental assessment and cleanup process associated with the Pier 70 site. The Water Board, a department of the California Environmental Protection Agency, is the lead regulatory agency overseeing the environmental assessment and cleanup work at Pier 70. This fact sheet describes a draft cleanup plan, formally a "Feasibility Study and Proposed Remedial Action Plan" to address environmental pollution on the Pier 70 site (Figure 1). The Water Board is holding a community meeting on March 21 to present and discuss the draft cleanup plan, as well as take any comments you may have. A 30-day public comment period on the document will run from March 15 to April 16, 2012. Please see the end of this fact sheet for details on the public meeting and how you may participate.

Background

Pier 70 is located on the shoreline of San Francisco Bay and generally includes the area bounded by 22nd Street to the south, Illinois Street to the west, and San Francisco Bay to the north and east (Figure 1). The Site encompasses approximately 65 acres. Surrounding land uses include commercial, industrial, and some residential. Much of the land is comprised of fill material placed seaward of the historic shoreline. Portions of Pier 70 were formerly occupied by the United States Navy for shipbuilding and related industrial operations. These heavy industrial uses have the potential for contaminating the soil, soil gas, and groundwater through the use of paints, degreasers, solvents, petroleum products, sand blasting grit, metal plating, etc. Additionally, fill material placed to extend the land mass was derived from blasting serpentinite bedrock, common in Northern California, and contains naturally occurring asbestos and elevated levels of the metals chromium, nickel, and zinc. The Port of San Francisco (Port) owns the Site and manages portions of Pier 70 for public benefit. The draft cleanup plan covers the upland or onshore portions of Pier 70 (Figure 1). The intertidal and near shore portions of Crane Cove Park will be addressed separately.

Pier 70 Redevelopment Plan

The Port conducted a community-based master planning process, resulting in a Preferred Master Plan (parcels shown on Figure 1) with the following elements: 1) Reuse and rehabilitate historic structures to be recognized in an eligible historic district to be listed in the National Register of Historic Places; 2) Create new shoreline open space; 3) Integrate new commercial, open space and potentially residential development with the existing ship repair and dry dock industry; and 4) Develop land uses that respect the historic character and promote economic development (www.sfport.com/pier70/).

Site Investigation

The site investigation, conducted in 2009 and 2010, included soil, soil gas and groundwater sampling (Figure 1). Soil contaminants at Pier 70 include metals, petroleum hydrocarbons, polycyclic aromatic hydrocarbons and PCBs at concentrations exceeding cleanup levels throughout the site. Nonvolatile, insoluble, highly viscous hydrocarbons are present beneath portions of the BAE Systems San Francisco Ship Repair facility at the green locations shown on Figure 1. In soil gas and groundwater, petroleum constituents slightly exceeded residential cleanup levels at two different locations, and do not reflect an on-going release that could be cleaned up. There are also sporadic detections of various metals in groundwater at different areas of the site that do not represent actual groundwater plumes. The draft cleanup plan identifies, screens, analyzes, and documents the basis for selection of a specific cleanup option for soil contamination. A site conceptual model developed to identify contamination, where it came from, and how the contaminants could contact "receptors", such as people, animals, or Bay water is presented in Figure 2. Site investigation results were evaluated through a human health risk assessment and a "screening-level" ecological risk assessment.

Pier 70 Cleanup Objectives, Site Risks, and Cleanup Levels

The cleanup objectives for soil are to prevent or minimize human and ecological receptors' contacting, ingesting, or inhaling contaminated soil and dust at unhealthy levels; and prevent or minimize contaminants from leaching from soil into groundwater. For soil gas, the objectives are to prevent or minimize future Site users' exposure via inhalation of volatile organic compounds (such as solvents), which could migrate upward from the subsurface and accumulate indoors. For groundwater, the objectives are to prevent contaminants exceeding surface water criteria from reaching San Francisco Bay (Figure 2). A human health risk assessment evaluated potential exposures and risks associated with anticipated future land use and construction to develop cleanup levels (concentrations of chemicals that can remain in soil, soil gas, or groundwater without significant risk of health impacts or ecological impacts). Concentrations of chemicals in soil, soil gas, and groundwater at Pier 70 were compared to residential, commercial and recreational cleanup levels to identify risks posed by contaminants. This information was presented at a community meeting on June 16, 2010. The draft cleanup plan identifies and evaluates potentially feasible cleanup actions and documents the basis for selecting a cleanup plan that, in combination with a Risk Management Plan (RMP), will protect human health and the environment under any of the anticipated uses (commercial, recreational, residential), wherever they are developed, and protect construction workers.

Feasibility Study and Cleanup Alternatives Analysis

The feasibility study (FS) evaluates a range of applicable cleanup technology that could be used to mitigate potential health risks posed by pollutants at the Site. The study initially screens a wide variety of technologies and determines which would be viable at the site. Those technologies are then compiled into several cleanup alternatives. These alternatives are further evaluated and ranked with respect to established Federal and State criteria. After screening technologies for short and long- term effectiveness, feasibility and cost, etc., the following cleanup alternatives were determined to be applicable and feasible for mitigating contaminated soil at Pier 70 and were retained for further analysis:

1. No Action. In accordance with regulatory guidance, the no action alternative is analyzed as a baseline for comparison with other alternatives only.
2. Institutional Controls. Institutional controls are legal or administrative mechanisms for imposing land use, access, or activity restrictions or conditions such as health and safety requirements for workers or prohibition on use of groundwater. They are designed to limit exposure of future site users to contaminants that pose a potential risk and are used to ensure compliance with restrictions so that the integrity of the cleanup action is maintained.
3. Institutional Controls and Durable Covers (Capping). This alternative combines institutional controls with placing a cap (roads, buildings, clean soil, etc.) over contaminated soil to prevent migration or exposure to contaminated soil.
4. Soil Excavation and Off-site Disposal. Excavation and removal of soil containing contaminants at concentrations above the site-specific cleanup level to an off-site disposal facility would prevent migration or exposure to contaminants.
5. Soil "Hot Spot" excavation and off-site disposal. This alternative would remove soil from "hot spots" (areas where contamination is concentrated in a localized area and concentrations of contaminants are significantly higher than in surrounding soil) and dispose in an appropriate off-site facility.

All of the alternatives other than "no action" were determined to be feasible and offer at least good short-term and long-term effectiveness. The comparative evaluation was most affected by the relative overall protectiveness and cost. Alternative 3 – Institutional Controls and Cap was rated the highest: "very good". The other alternatives were rated "fail", "very poor" or "poor".

Proposed Cleanup Plan

Alternative 3 - Institutional controls and durable covers (capping) is the recommended alternative for mitigating risks associated with pollutants at the site. This cleanup plan consists of an engineered physical barrier between pollutant impacted soil and the site surface, adoption of institutional controls, monitoring, and maintenance. Durable covers could include: new or existing buildings, streets, sidewalks, layers of clean fill for landscaping, etc. These physical barriers would effectively isolate pollutant impacted soil. The institutional controls would likely be in the form of an environmental deed restriction and associated RMP. The RMP will be developed and used to guide site management needs before, during, and after development to ensure human health and environmental protection. The RMP may also set forth procedures for further evaluation, and/or cleanup. Construction workers who may need to come in contact with impacted soil or groundwater would be protected by an appropriate health and safety plan, essential elements of which will be specified by the RMP. This cleanup plan is compatible with the proposed commercial, residential and recreational land uses and provides a high degree of human health and ecological protection by eliminating exposure to pollutant impacted soil. The cleanup plan would not require damage or demolition of the historic structures at Pier 70. The future redevelopment and revitalization of the site will in itself become a major component of the durable cover required under this cleanup plan.

Conclusion

The draft cleanup plan will be available on March 15, online at the following address: (http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000001210 and www.sfport.com/pier70/)

Hard copies of the documents are available at the information repositories at the Port (Pier 2, San Francisco) and the Water Board (1515 Clay Street, 14th Floor, Oakland). After the close of the public comment period, the Water Board will prepare responses to comments, prior to finalizing the cleanup plan. The draft RMP will be completed and presented in a future Fact Sheet and a future public meeting.

Please join us for a Community Meeting – March 21, 2012 at 5:30 PM at the Potrero Hill Neighborhood House located at 953 De Haro Street in San Francisco.

Public comment for the FS/RAP will be from March 15th to April 16th, 2012. Comments can be made verbally at the Community Meeting or submitted in writing to Mark Johnson with the Water Board via e-mail at mjohnson@waterboards.ca.gov or mail to San Francisco Bay Regional Water Quality Control Board, 1515 Clay Street, Suite 1400, Oakland, CA 94612.

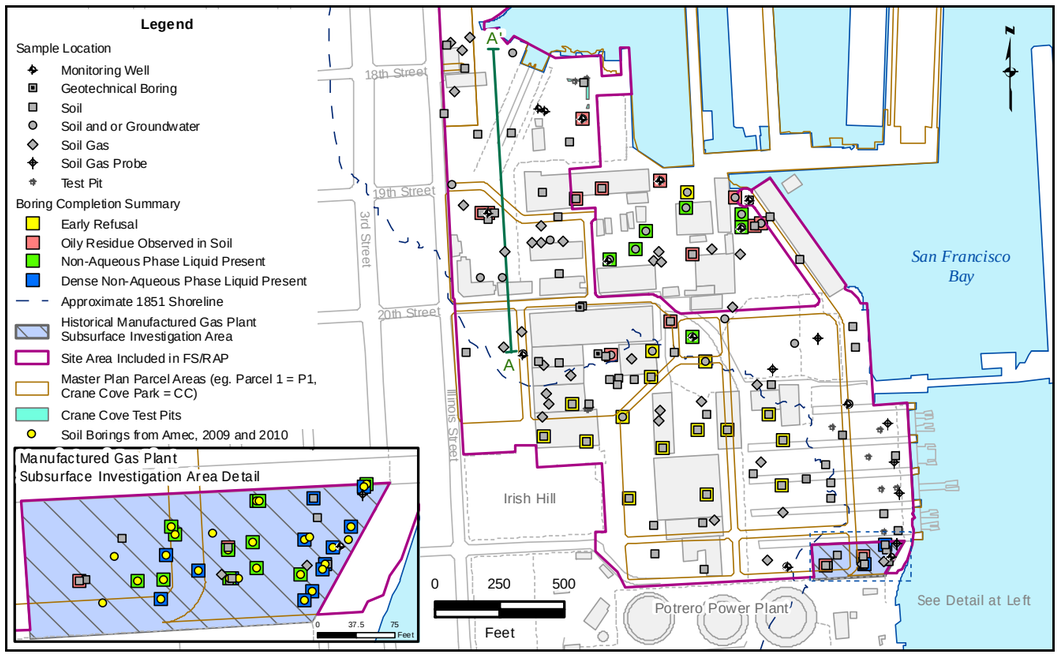

Figure 1 - Investigation Sampling Locations

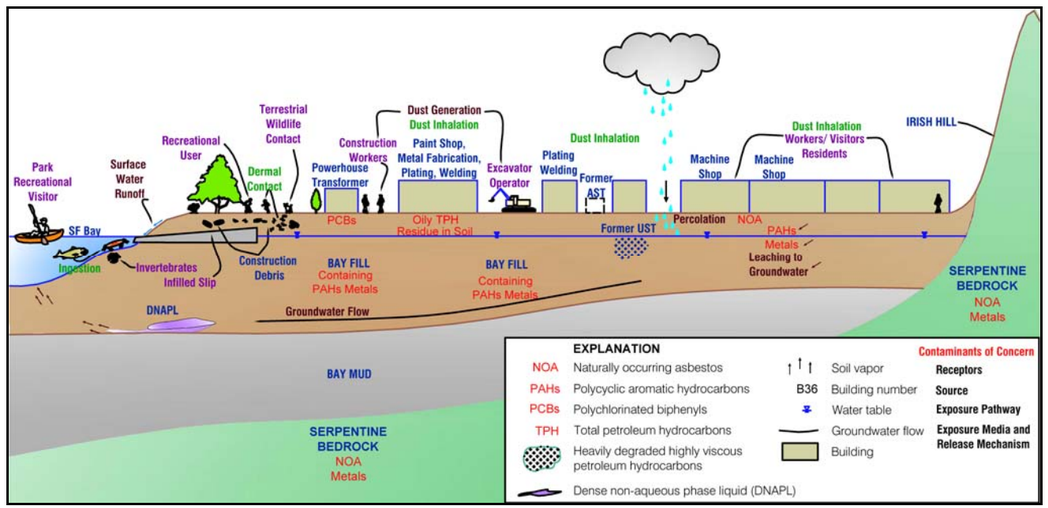

Figure 2 – Updated Site Conceptual Model

ADDITIONAL INFORMATION AND REPORT AVAILABILITY

Pier 70 Website: The Port has developed a website dedicated to the Pier 70 redevelopment project. We encourage you to visit it at: www.sfport.com/Pier70 and at www.pier70sf.org.

The Water Board has documents and other technical information for the Site available on Geotracker at: https://geotracker.waterboards.ca.gov. Click on advanced search and enter Case ID number **38S0058**. All documents submitted to the Water Board for this Site will be available at this location.

Contact Information:
For additional information on the Pier 70 project, please contact any of the following individuals:

San Francisco Bay Regional Water Quality Board: Mark Johnson, at (510) 622-2493, e-mail mjohnson@waterboards.ca.gov.

Port of San Francisco: Carol Bach, Environmental Officer (415) 274-0568, e-mail carol.bach@sfport.com.

Project Technical Consultant to Port: Dorinda Shipman, Treadwell & Rollo, at (415) 955-5262, e-mail dcshipman@treadwellrollo.com.

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