Parcel C Remedial Action Summary
Hunters Point Naval Shipyard
San Francisco, California

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Hunters Point Naval Shipyard (HPNS) Community Meeting
July 13, 2016
Parcel C Remedial Action

• The CERCLA Process

• Parcel C Record of Decision (ROD)
  – RU-C1, C2, C4 & C5 Remediation Areas
  – Parcel C Excavation Summary
  – Soil Vapor Extraction (SVE) Areas: RU-C1, C2, C4 & C5
  – Remedial Action: Groundwater

• Proposed Work at Parcel C

• Comments on Upcoming Work Plan
CERCLA (Superfund) Process

- Site Discovery
- Preliminary Assessment/Site Inspection (PA/SI)
- Community Profile
- Remedial Investigation & Feasibility Study (RI/FS) including Risk Assessment
- Proposed Plan
- Public Notice / Meeting
- Record of Decision (ROD)
- Remedial Design (RD)
- Remedial Action (RA)/ Implementation
- Site Closure/ Certification
- Operation & Maintenance Engineering/ Institutional Controls
The 2010 Parcel C ROD selected remedies:

**Soil**
- Excavation
  - Metals, solvents, other organic chemicals
- SVE Source Reduction
  - Solvents in soil above groundwater
- Durable covers and Institutional Controls

**Groundwater**
- Treatment using environmentally-friendly materials
- Monitored Natural Attenuation
- Institutional Controls
Summary of Remedy

- Soil Excavation
- ZVI
- ISB Nutrients
- Soil Gas Monitoring Probe
- Durable Asphalt Cover
- Vacuum Blower
- Trebled Air

- Soil Source Area
- ZVI/ISB Direct Injection Points
- Contaminated Groundwater
- SVE Well
- Vadose Zone
- Contamination
- Gas Flow
- Groundwater Monitoring Well

- Soil
- Groundwater
- ZVI = Zero Valant Iron
- ISB = In situ Bioremediation
- SVE = Soil Vapor Extraction
RU-C1, C2, C4 and C5 Remediation Areas
Parcel C Excavation Summary

After excavation panoramic view of Excavation 22-1 facing east – September 2013
SVE Areas in Parcel C: RU-C1, C2, C4 & C5

SVE Area 1 System Outside Building 272 (RU-C4)
Remedial Action: Groundwater

• 2013 – 2014: Completed first phase of groundwater treatment in four areas.

• January – March 2016: Completed second phase of treatment in two areas.

• 2016-2017: Additional groundwater treatment planned.
Equipment used to mix and inject ZVI and other environmentally-friendly materials for groundwater remediation in RU-C4
Proposed Work at Parcel C

• Characterization (November 2016 – February 2017)
  – Soil and groundwater sampling
  – Well installation

• Remediation (~January – August 2017)
  – Soil excavation
  – Groundwater treatment
  – SVE (currently operating)
Proposed Work at Parcel C

Work Areas in Yellow and Green

Legend
- Soil Characterization and Excavation Areas
- Approximate Area of VOC
- Groundwater Characterization / Treatment
- Petroleum Program Site
- SVE Areas
- Approximate Boundary of RUs
- Parcel C Boundary

1 inch = 200 feet

San Francisco Bay
Proposed Work at Parcel C

Recent drilling/characterization performed in RU-C5

Recent groundwater sampling in RU-C1
Draft Work Plan


Copies will be placed in the information repositories located at:

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

OR

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

If you have comments on the Work Plan, mail, e-mail, or fax comments to:

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Questions?