Navy Proposed Plan for Parcel E-2 Hunters Point Naval Shipyard

City and County of San Francisco Board of Supervisors
Land Use and Economic Development Committee Public Hearing
October 24, 2011

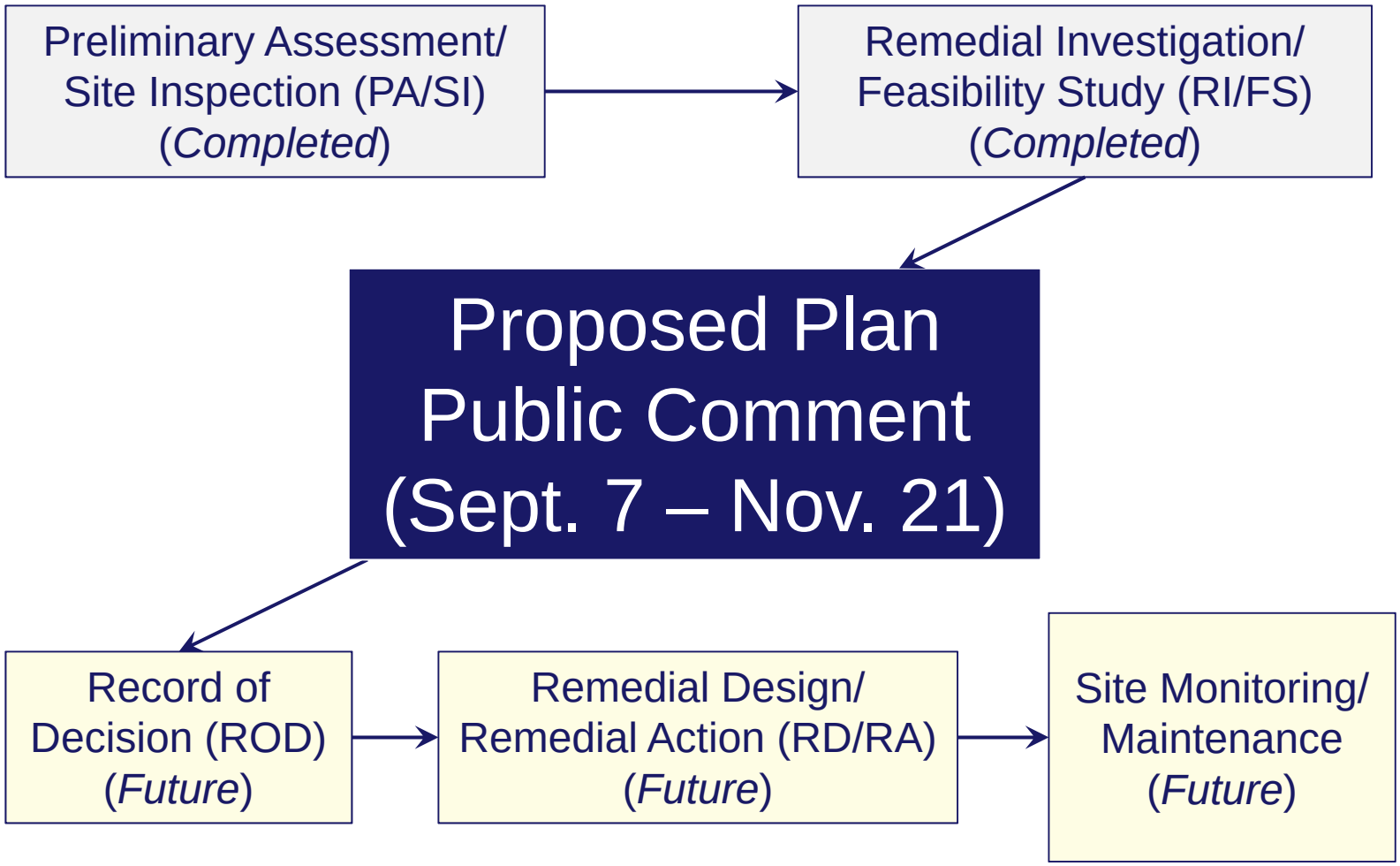
Lara Urizar, Navy Remedial Project Manager

Purpose

1. Provide an overview of Navy Parcel E-2 Proposed Plan

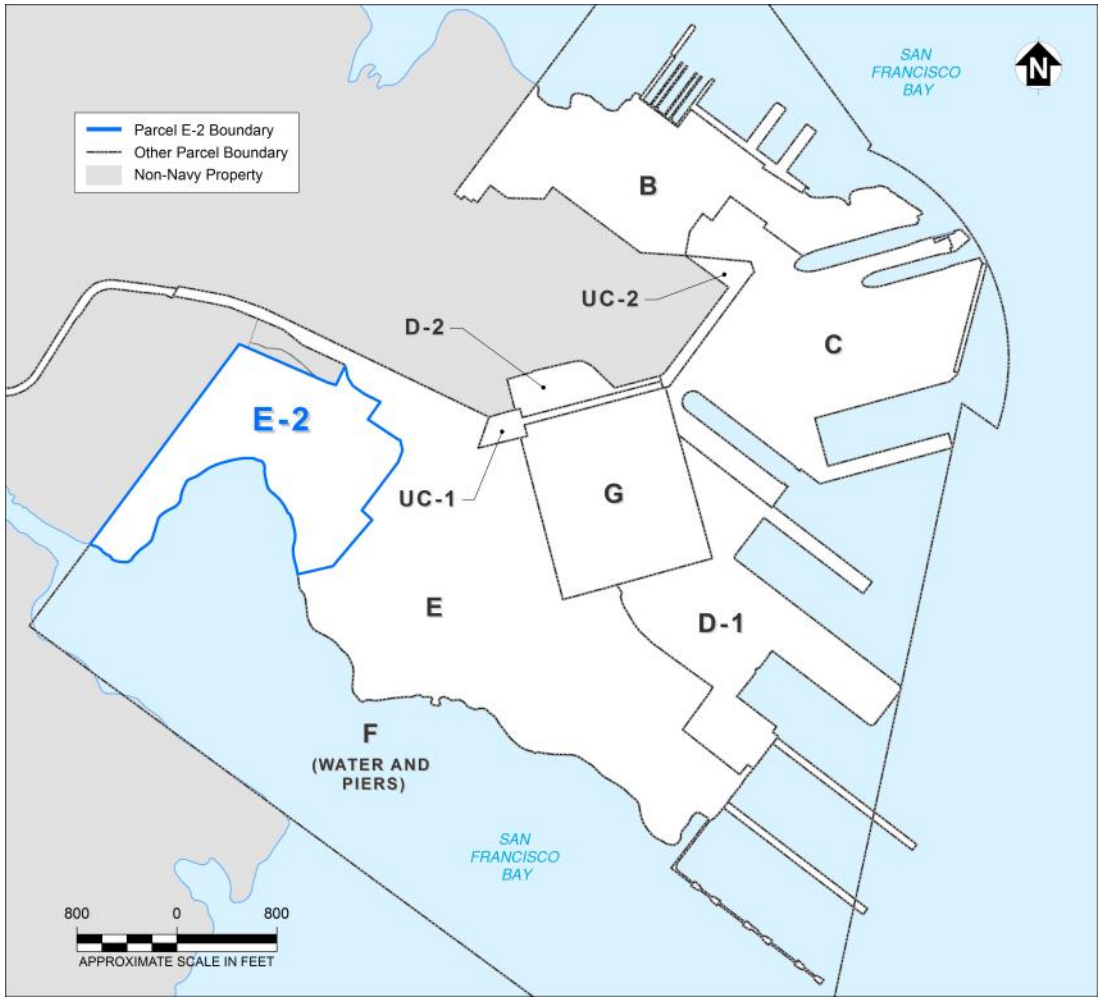
2. Answer clarifying questions about the proposed remedy

The Cleanup Process



Location of Parcel E-2

Parcel E-2 is located in the southwest part of Hunters Point Naval Shipyard and includes about 48 acres of shoreline and lowland coastal area.



History of Parcel E-2

Parcel E-2 was created between the early 1940's and late 1960's by filling along the edges of the bay with various materials, including:

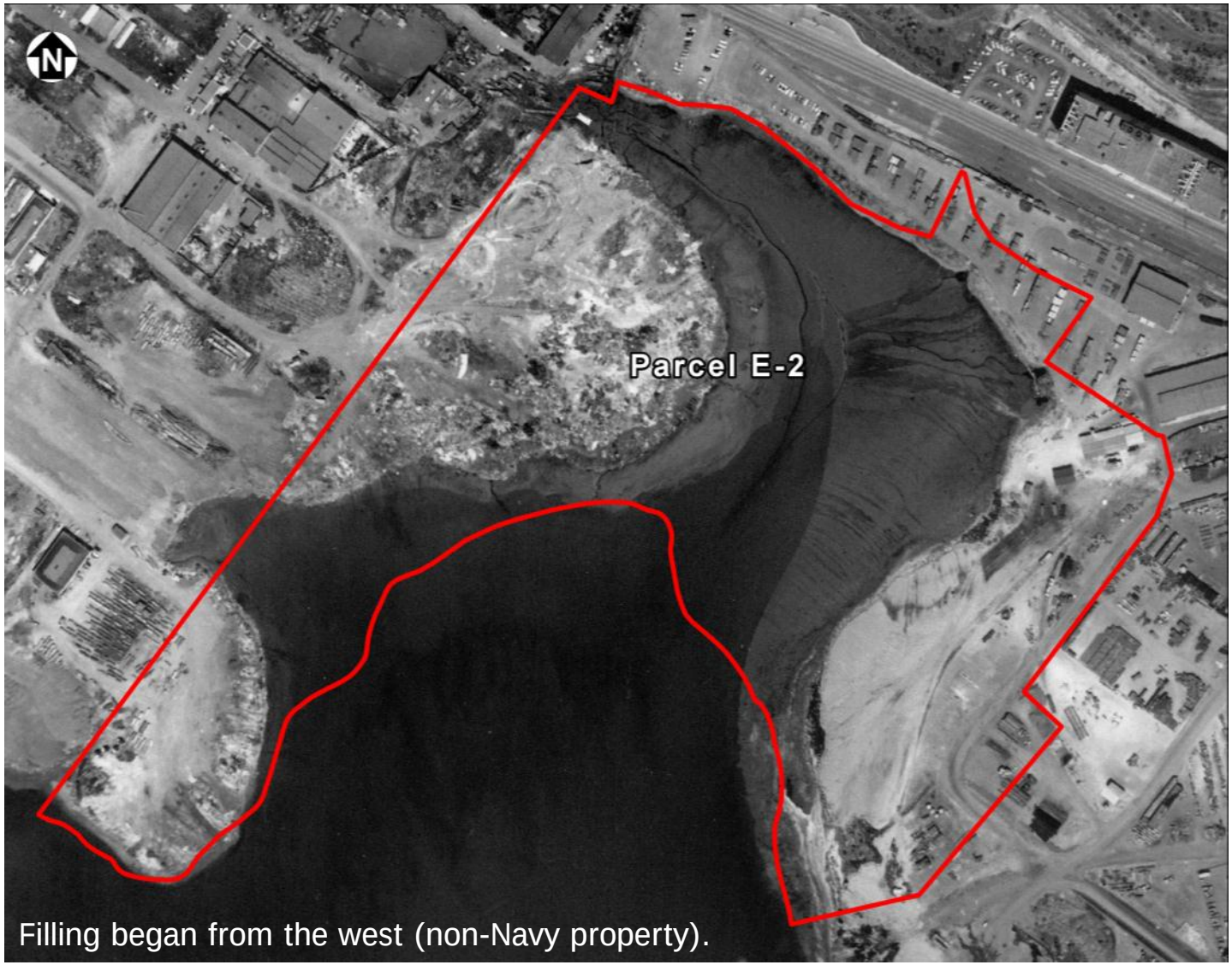
- Soil
- Crushed bedrock
- Dredged sediments
- Construction debris
- Trash and industrial wastes

The next series of slides shows the fill history at Parcel E-2 from 1946 through 1974.

1946 Aerial Photograph

Note that the only filled area consists of what is now called the East Adjacent Area. This area was filled during the base expansion in the early 1940s.

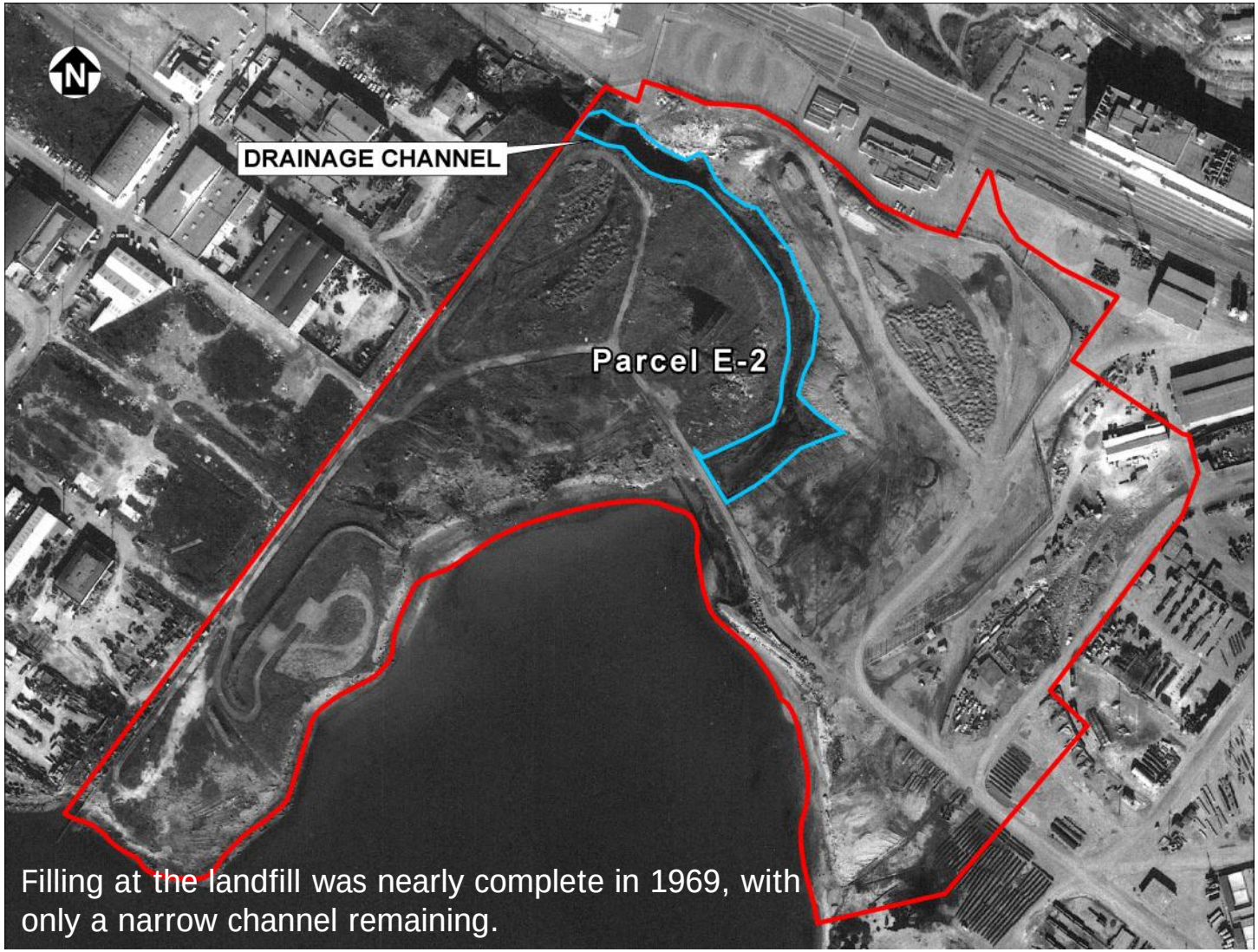
1955 Aerial Photograph



Filling began from the west (non-Navy property).

1965 Aerial Photograph

1969 Aerial Photograph



Filling at the landfill was nearly complete in 1969, with only a narrow channel remaining.

1974 Aerial Photograph

What do we know about Parcel E-2?

Previous Investigations at Parcel E-2

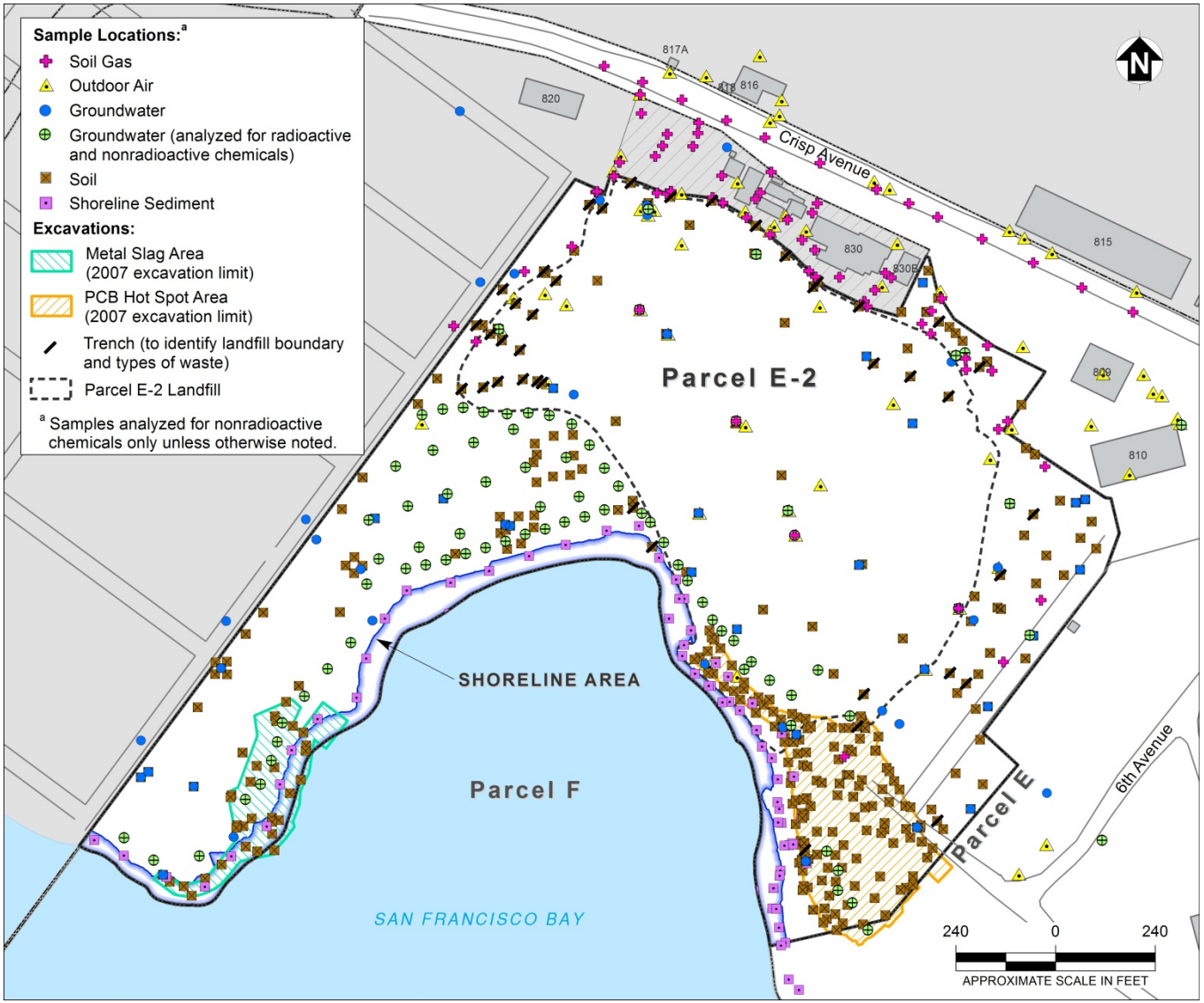
The Navy performed environmental investigations from 1988 through 2008:

- 124 soil borings
- 40 investigation trenches
- 103 groundwater monitoring wells
- 32 soil gas monitoring probes

Environmental samples were collected from these borings, trenches, groundwater monitoring wells, and soil gas monitoring probes:

- 1,113 soil samples
- 754 groundwater samples
- 1,220 radiological soil and groundwater samples
- Over 3,000 soil gas samples
- Over 1,700 outdoor air samples

Previous Investigations at Parcel E-2 (continued)

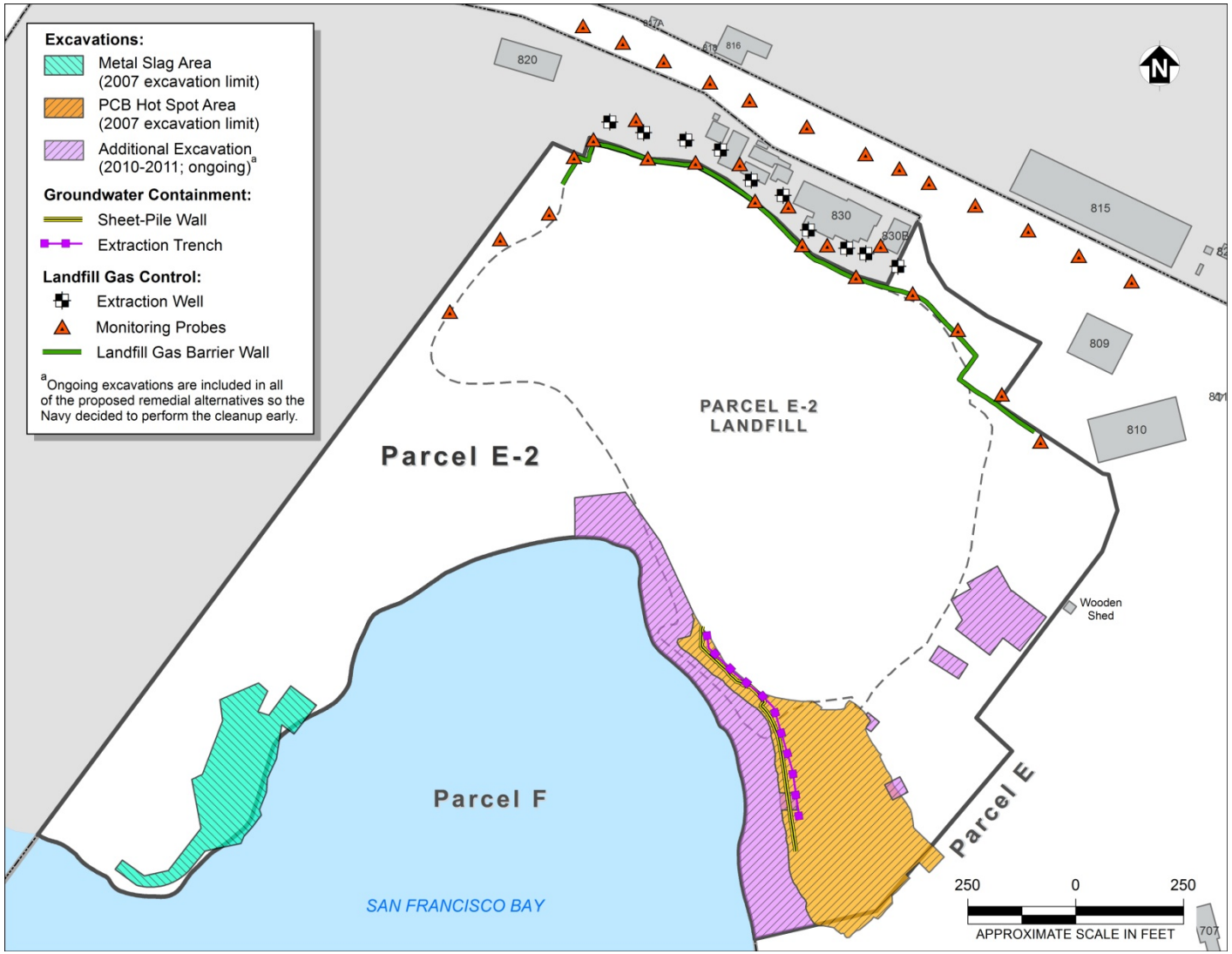


What do we know about the Landfill?

The Parcel E-2 Landfill was created by filling with a variety of shipyard wastes:

- Construction debris - Wood, steel, concrete, and soil
- Municipal-type trash - Paper, plastic, glass, and metal
- Industrial waste - Sandblast waste, low level radioactive material, paint sludge, solvents, and waste oils with polychlorinated biphenyls (PCBs)

Early Cleanup Actions



PCB Hot Spot Area – Before (looking northwest)

PCB Hot Spot Area – After (looking northwest)

Evaluation of Remedial Alternatives

- Navy evaluated an array of alternatives ranging from full removal of the landfill to containment in place
- Navy prefers a hybrid approach that includes containment of the landfill and excavation of hot spots
- Navy is required to follow federal criteria when evaluating alternatives

Comparison Criteria for Alternatives

1. **Overall Protection of Human Health and the Environment**
   How the risks are eliminated, reduced, or controlled through treatment, engineering, or institutional controls.

2. **Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)**
   Federal and state environmental statutes met or grounds for waiver provided.

3. **Long-term Effectiveness**
   Maintain reliable protection of human health and the environment over time, once cleanup goals are met.

4. **Reduction of Toxicity, Mobility, or Volume (TMV) through Treatment**
   Ability of a remedy to reduce the toxicity, mobility, and volume of the hazardous contaminants present at the site.

5. **Short-term Effectiveness**
   Protection of human health and the environment during construction and implementation period.

6. **Implementability**
   Technical and administrative feasibility of a remedy, including the availability of materials and services needed to carry it out.

7. **Cost**
   Estimated capital, operation, and maintenance costs of each alternative.

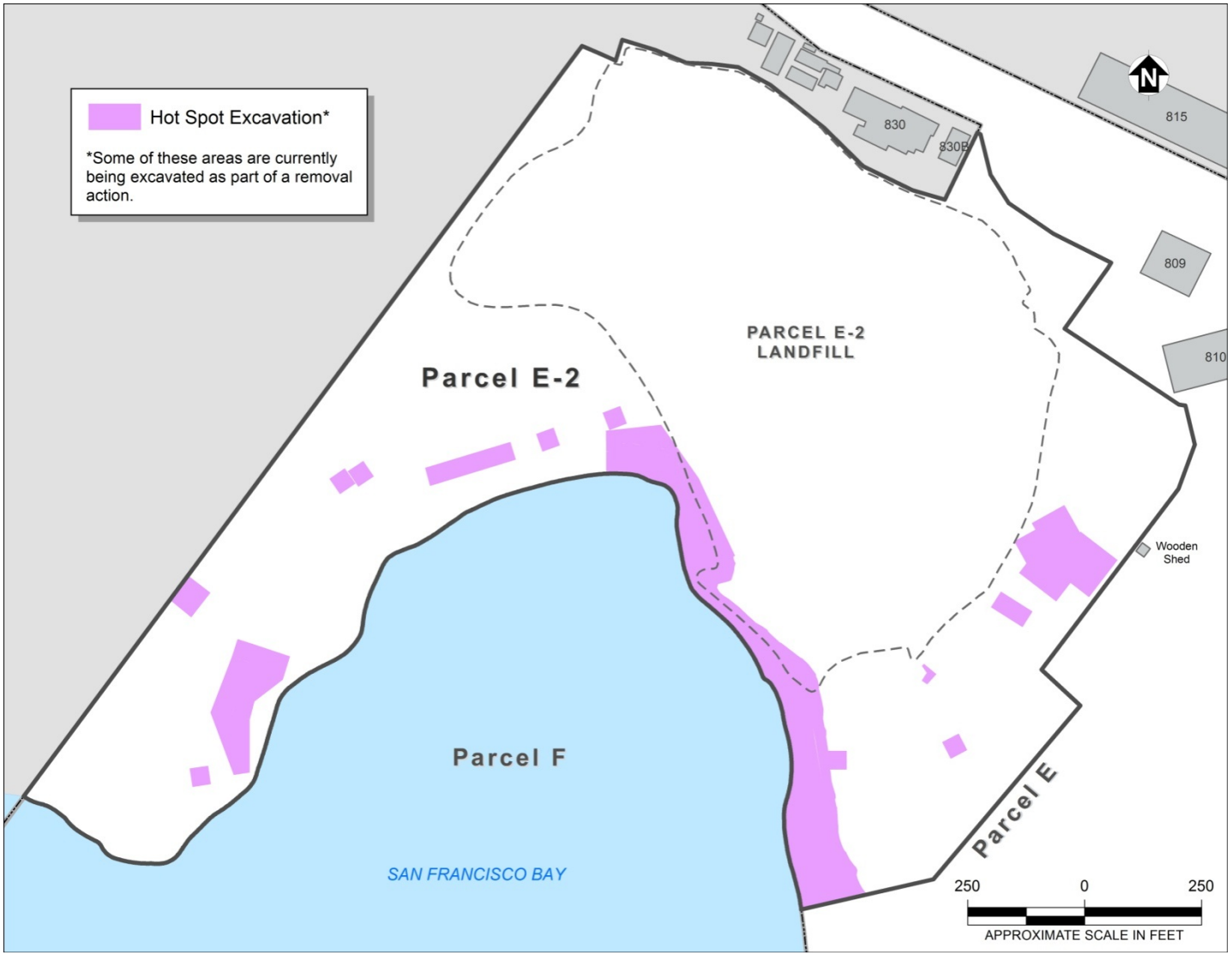
8. **State Acceptance**
   State concurs with, opposes, or has no comment on the preferred alternative.

9. **Community Acceptance**
   Community concerns addressed; community preferences considered

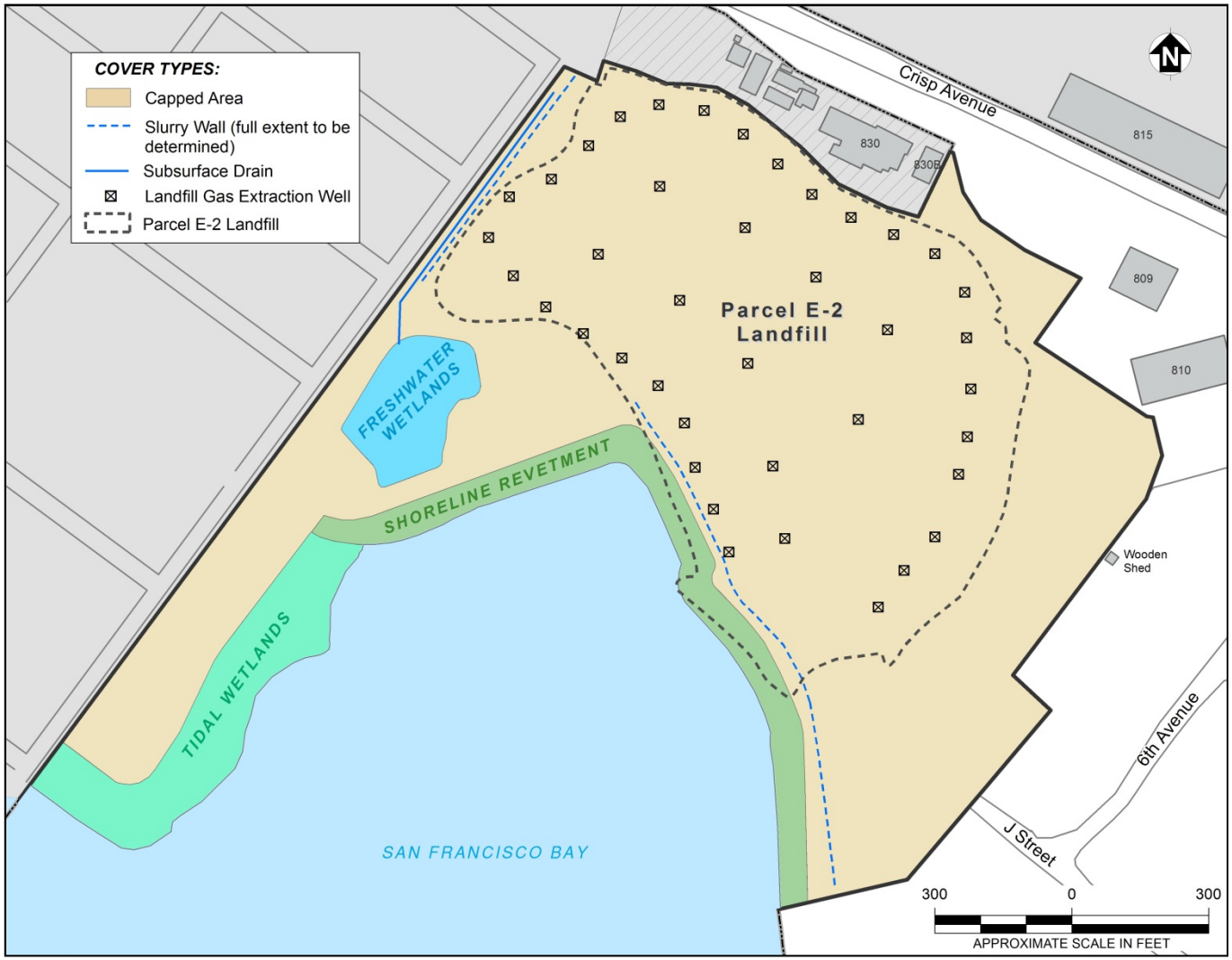
Preferred Alternative

- Excavate and dispose of soil hot spot areas
- Install protective liner and soil cover over landfill and adjacent areas
- Install underground barriers (slurry walls) to limit contaminated groundwater flow to the Bay
- Remove and treat landfill gas
- Build a shoreline revetment (rock wall)
- Build new wetlands
- Monitor and maintain the remedy
- Maintain the area as open space – the designated land use

Preferred Alternative (continued)

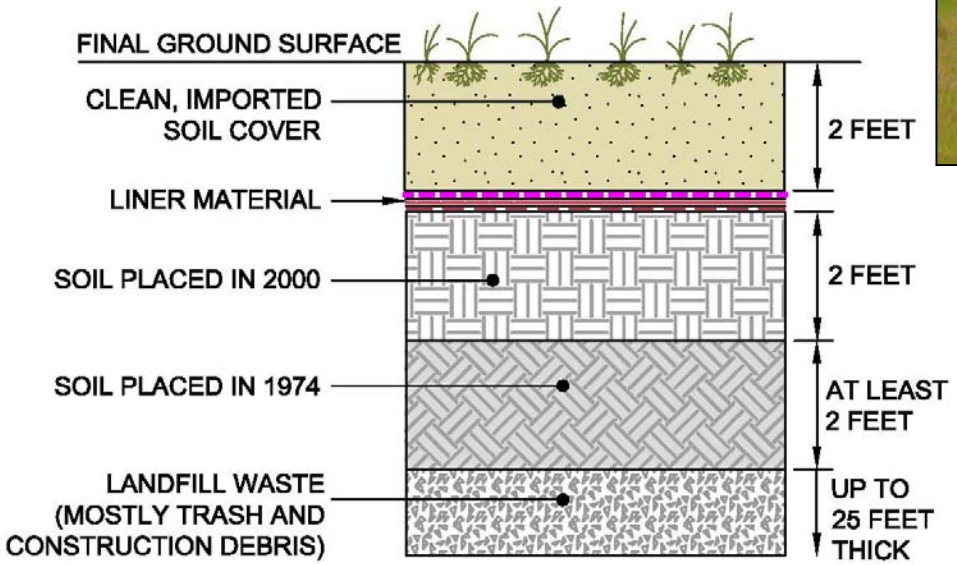


Preferred Alternative (continued)



Preferred Alternative (continued)

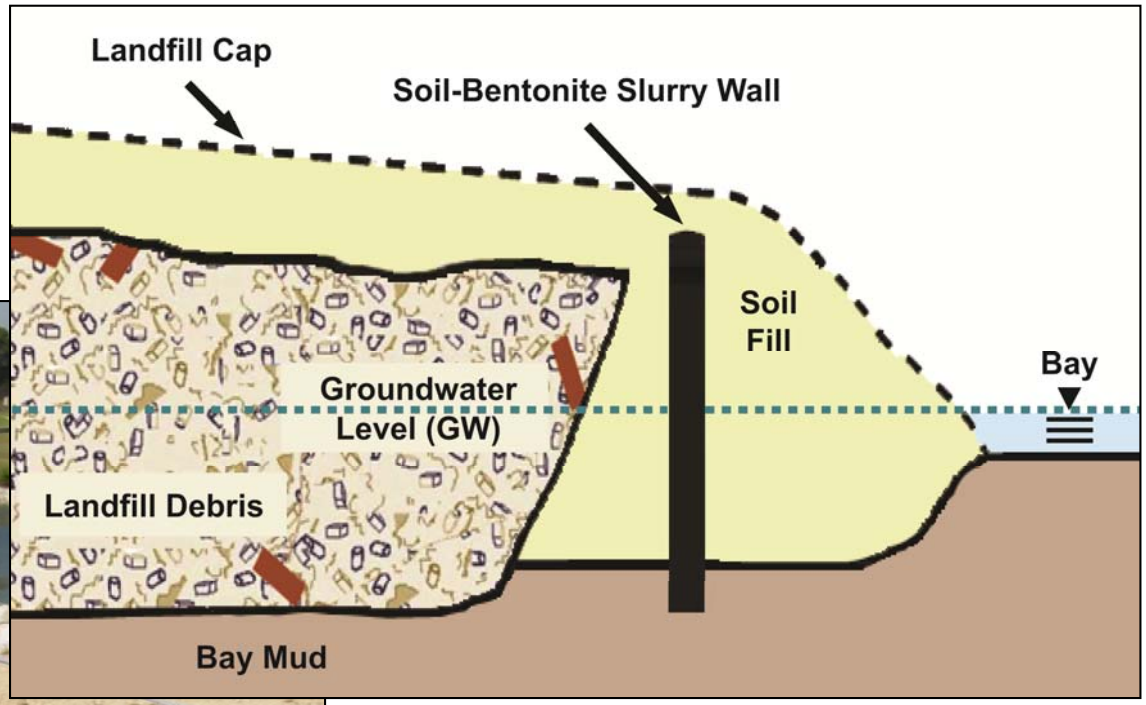
Existing Landfill Cap
(surface of future cap will look similar)



Schematic of Future Landfill Cap

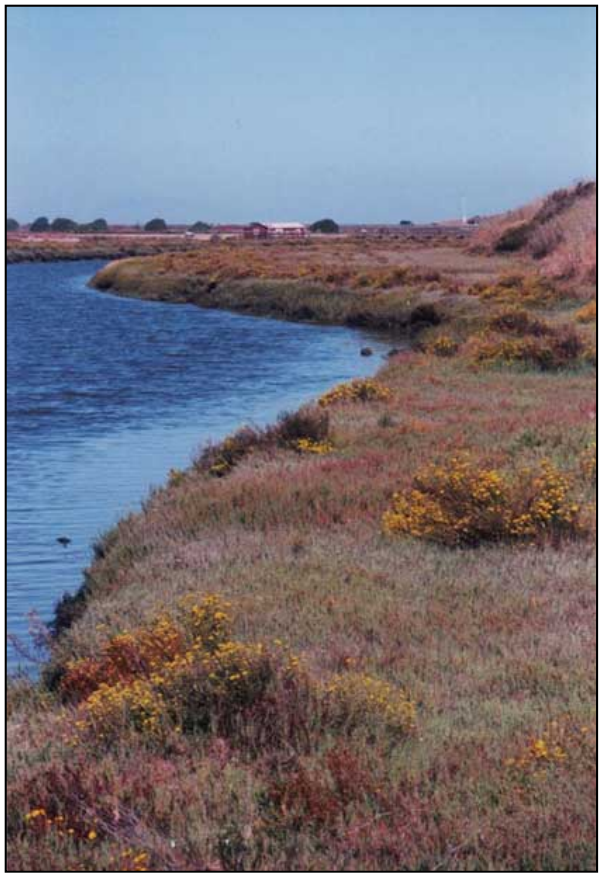
Preferred Alternative (continued)

Cross-Section of Slurry Wall Between Landfill and Bay



Typical Bentonite Slurry Trench Prior to Backfill with Soil-Bentonite Mixture

Preferred Alternative (continued)



Tidal Wetlands

Shoreline Revetment

Why is this the Preferred Alternative?

The landfill can be safely contained because the Navy's investigations show that:

- Landfill waste is similar to other closed military landfills around the Bay
- Buried dials with glow-in-the-dark radium paint can be safely managed in place
- Groundwater does not pose a major risk to humans or wildlife

Closure in place is consistent with EPA national policy for large landfills

Why is this the Preferred Alternative? (continued)

The preferred alternative was identified instead of a full excavation alternative because it would:

- Reduce long-term risks sooner
- Remove soil hot spots that present the most risk
- Safely contain the landfill using proven technology
- Present fewer short-term risks to workers and local community

Preferred Alternative Design Considerations

If the preferred alternative is selected, the Navy will design and build the final remedy to:

- Control potential liquefaction following an earthquake
- Treat landfill gas with the most appropriate technology
- Protect against flooding from a potential rise in sea level
- Provide pedestrian access

Next Steps

- Proposed Plan - public comments due Nov 21, 2011
- Draft Record of Decision (ROD) document in early 2012
  - ROD will include responses to public comments
  - ROD will select the final remedy for Parcel E-2
- Design and build the final remedy for Parcel E-2 (Remedial Design/Remedial Action) starting in 2013

How to Provide Comments

- **Mail, e-mail, or fax comments to:**

Mr. Keith Forman
BRAC Environmental Coordinator
Department of the Navy
BRAC Program Management Office West
1455 Frazee Road, Suite 900
San Diego, CA 92108-4310
Phone: (619) 532-0913
Fax: (619) 532-0995
Email: keith.s.forman@navy.mil

- **Provide comments no later than Nov 21, 2011**

Project Contacts

Contacts for Hunters Point Naval Shipyard	
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Dr. Ryan Miya Project Manager Department of Toxic Substances Control 700 Heinz Avenue, Suite 200 Berkeley, CA 94710 (510) 540-3775 RMiya@dtsc.gov	**Mr. Ross Steenson / Ms. Tina Low** Project Managers San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612 (510) 622-2258 / 5682 rsteenson@waterboards.ca.gov tlow@waterboards.ca.gov

Additional Information

- Information Repositories contain the Proposed Plan and the supporting project documents:

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

  Hunters Point Naval Shipyard Office Trailer
  690 Hudson Street
  San Francisco, CA 94124

- The Proposed Plan can also be found at: **www.bracpmo.navy.mil**