

An aerial photograph of the Hunters Point Naval Shipyard. The foreground shows a grassy hillside with a metal railing. Below it, several large, white industrial buildings are visible. In the middle ground, there is a large, flat green field. Beyond the field, a body of water (the San Francisco Bay) stretches across the frame. In the background, there are rolling hills and a cityscape under a clear blue sky.

Parcel E-2
Remedial Design
(1st of 3 Meetings)

Hunters Point Naval Shipyard

COMMUNITY MEETING
December 18, 2013



Agenda



Time	Topic
6:00 p.m. – 6:05 p.m.	Welcome/Introductions
6:05 p.m. – 6:10 p.m.	Meeting Format & Ground Rules
6:10 p.m. – 6:55 p.m.	Parcel E-2 Remedial Design Presentation
6:55 p.m. – 7:05 p.m.	Break
7:05 p.m. – 7:35 p.m.	Informal Navy/Regulator Break-out Session
7:35 p.m. – 7:45 p.m.	Review of Community Questions/Concerns
7:45 p.m.	Meeting Adjournment



Welcome and Introductions



Navy Team Members

Keith Forman

BRAC Environmental Coordinator
Hunters Point Naval Shipyard

Catherine Haran

Lead Remedial Project Manager
Hunters Point Naval Shipyard

Lara Urizar

Remedial Project Manager
Hunters Point Naval Shipyard

John Scott

Community Meeting Facilitator
Hunters Point Naval Shipyard



Meeting Format & Ground Rules



- The Navy's presentation will last approximately 45 minutes.
- We will answer questions during the presentation - John Scott will act as our Meeting Facilitator
 - Please raise your hand and ask your question when called upon
 - Please ask only **one** question at a time. When all other questions are answered, you may ask a second question.
- There will also be time at the end of the meeting for the Navy and regulators to answer additional questions



What will we discuss tonight?



- Where we are in the process
- Brief background of Parcel E-2
- Overview of selected remedy for Parcel E-2
- In-depth look at two work elements of the selected cleanup action for Parcel E-2



Community Involvement Meetings



The Navy plans to hold 3 meetings to discuss key work elements of the upcoming Parcel E-2 cleanup, including:

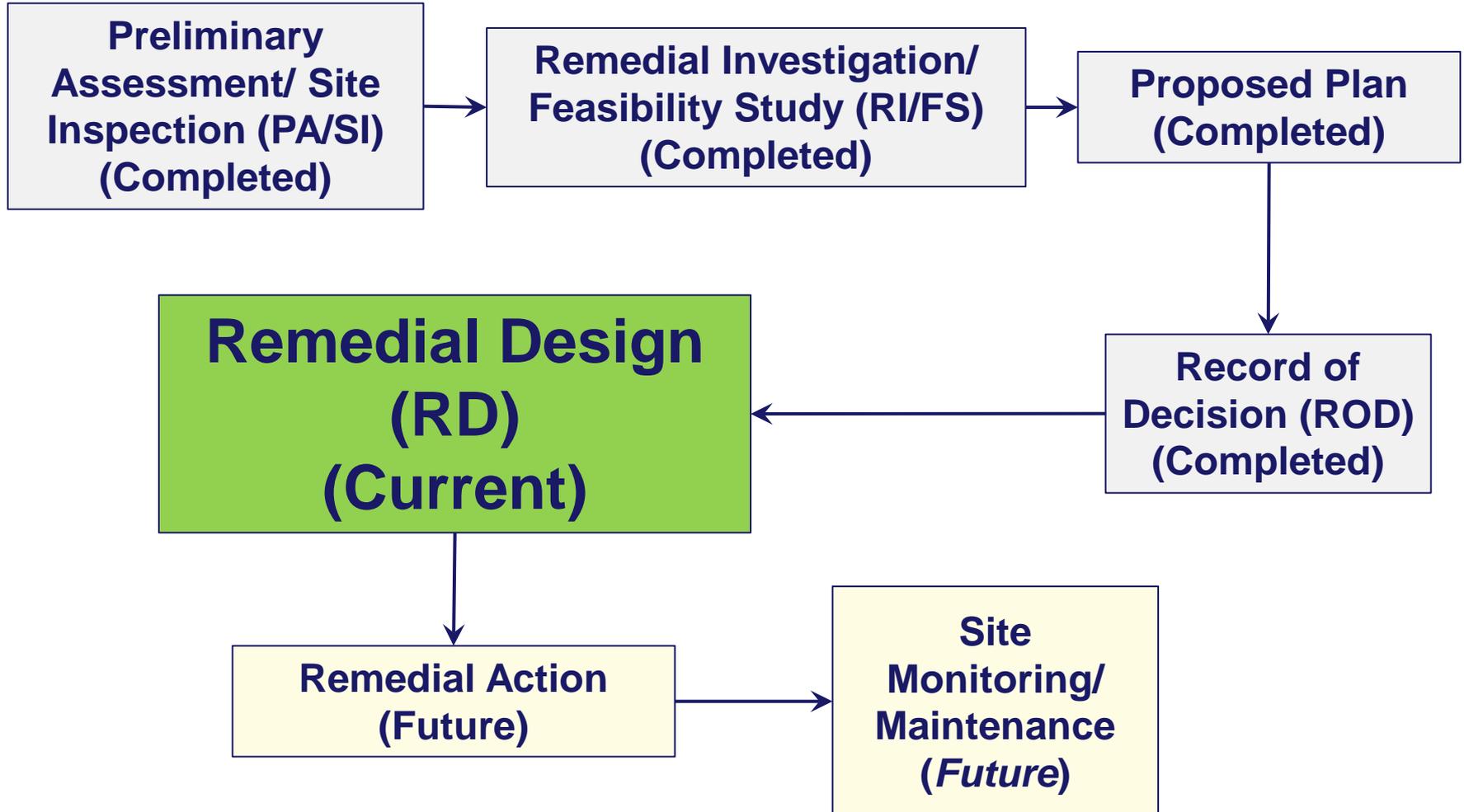
1. Winter 2013 (tonight): **Hot Spot Soil Excavation and Underground Slurry Wall**
2. Spring 2014: **Landfill Cover and Landfill Gas Collection System**
3. Summer 2014: **Shoreline Revetment, Wetlands and Long-term Management of the Remedy**



Regulatory Process



The Cleanup Process





Parcel E-2 Background

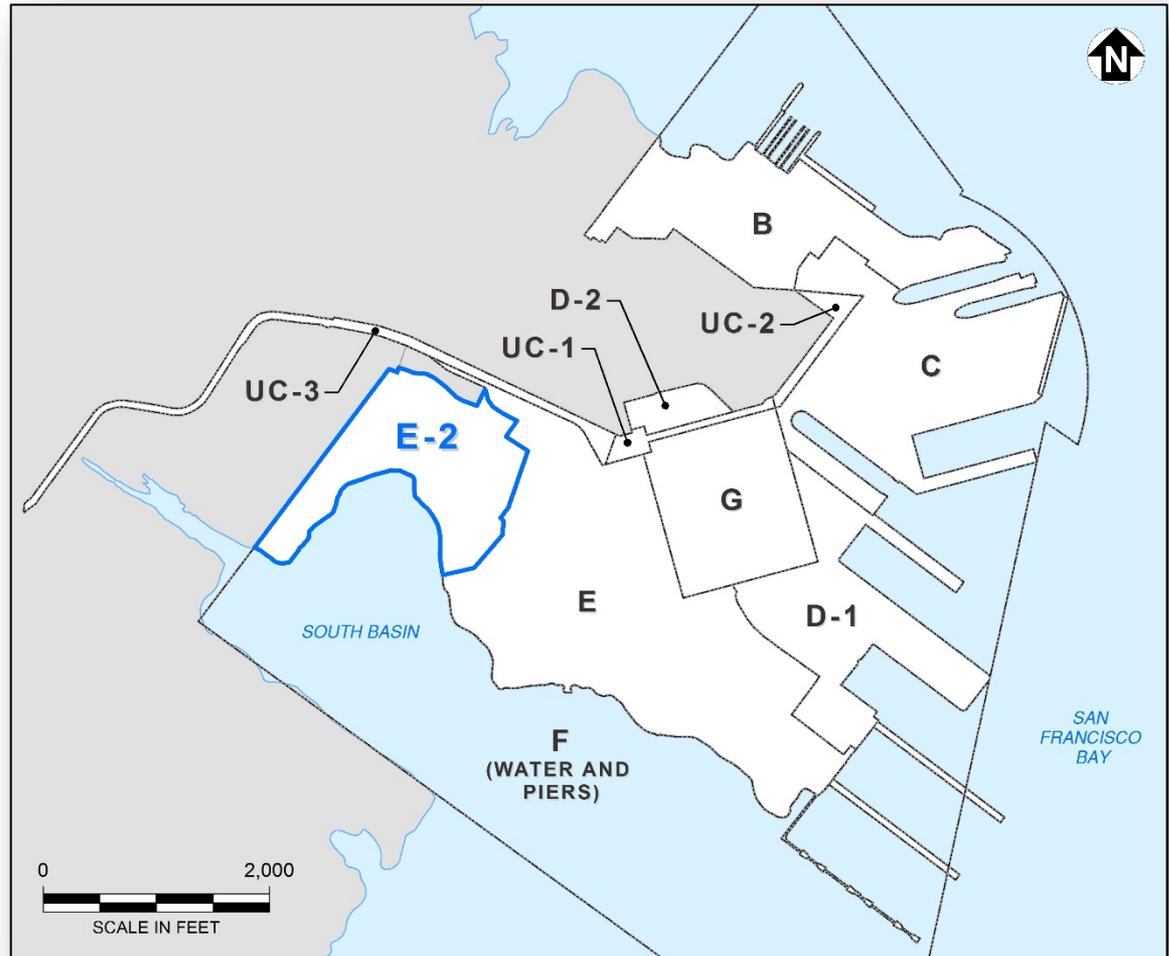


Location of Parcel E-2



Parcel E-2

- Located in the southwest part of Hunters Point Naval Shipyard
- Includes about 47 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.

Filling at Parcel E-2



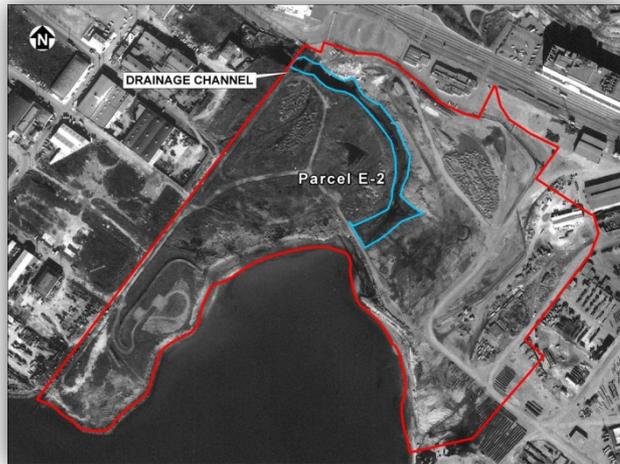
1946



1955



1965



1969



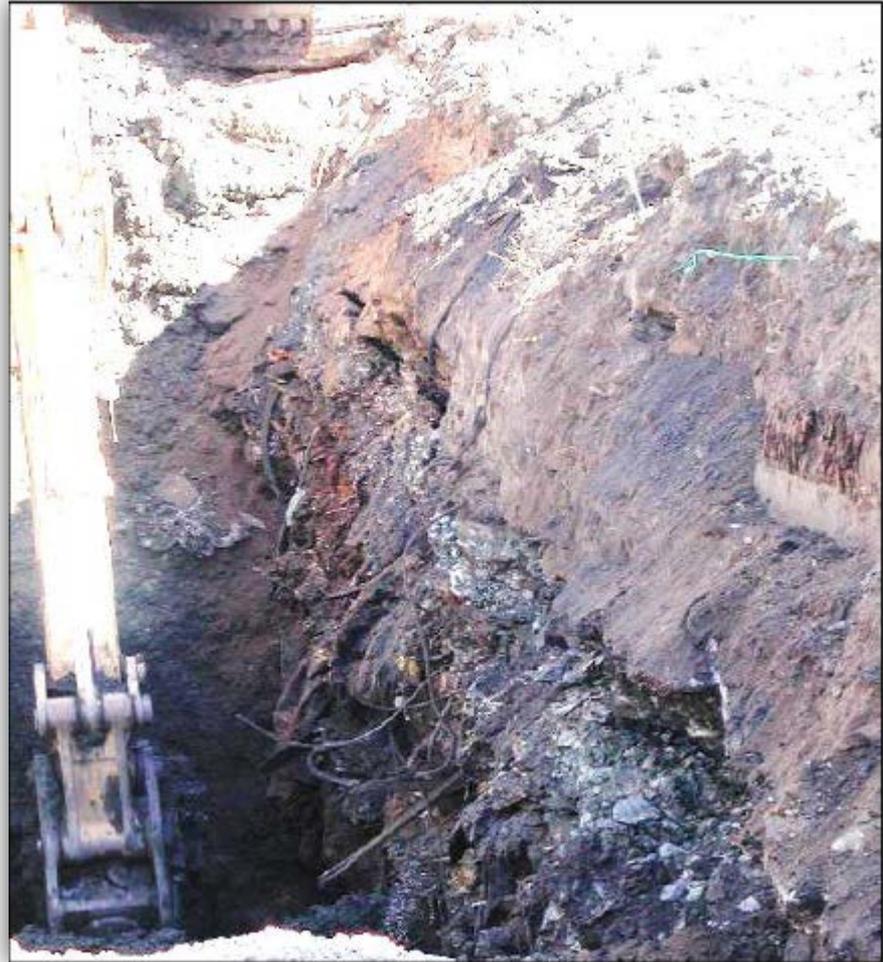
1974



Parcel E-2 Landfill



- **Filled with a variety of shipyard-related wastes**
 - Construction debris (wood, steel, concrete, soil)
 - Municipal trash (paper, plastic, glass, metal)
 - Industrial waste (sandblast waste, low-level radioactive material, paint sludge, solvents, waste oils)





Parcel E-2

Selected Remedy



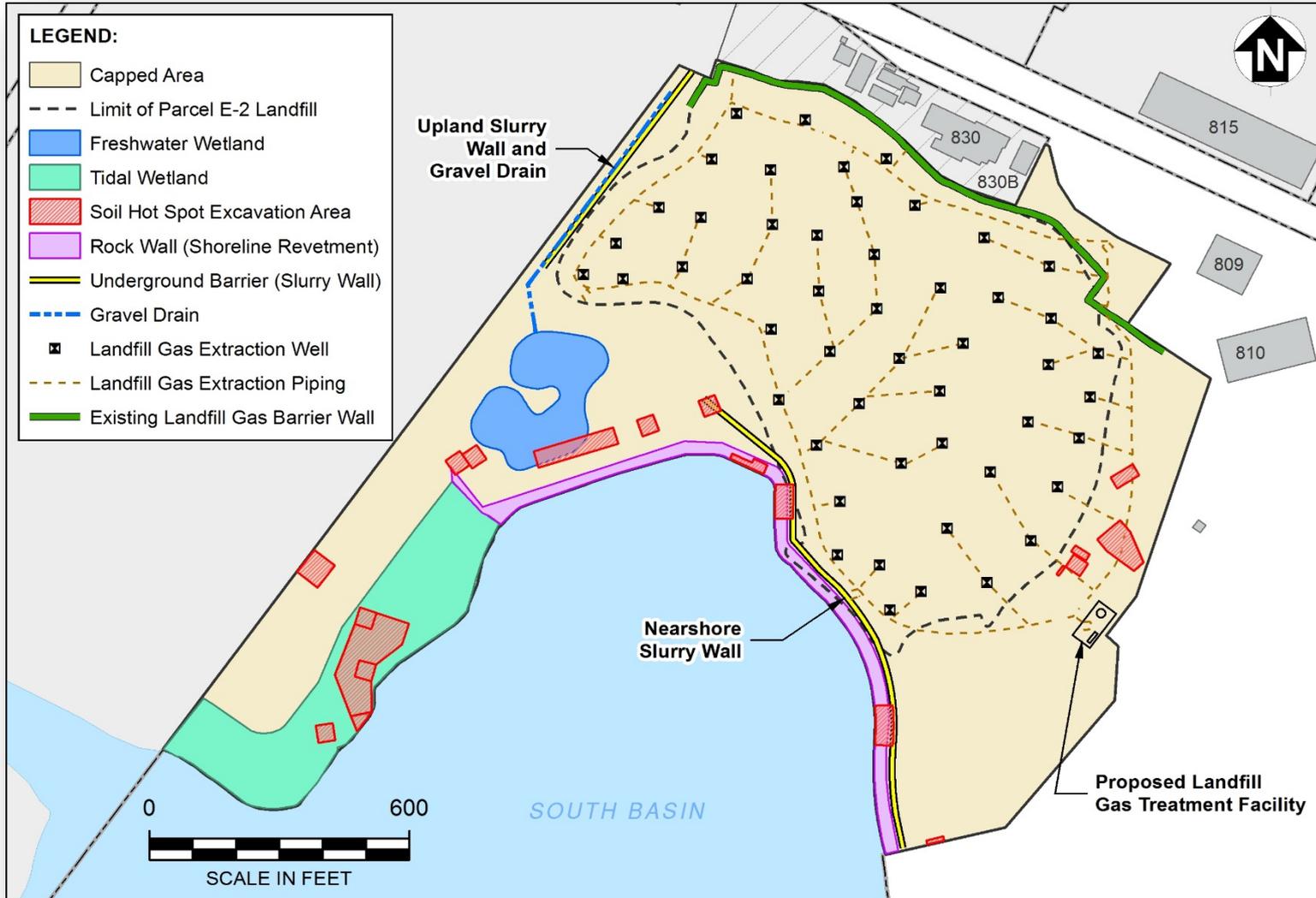
Remedy Components



1. Excavate and dispose of soil hot spot areas
2. Install underground barriers (slurry walls) and a gravel drain (French Drain) to limit contaminated groundwater flow to the Bay
3. Install protective liner and soil cover over landfill and surrounding areas
4. Remove and treat landfill gas
5. Build a shoreline rock wall (revetment)
6. Build new wetlands
7. Professionally monitor and manage the site after the remedy is in place



Illustration of Selected Remedy





Remedy Components *(continued)*



The Navy plans to discuss the remedy components as follows:

- Winter 2013 (tonight)
 1. Excavate and dispose of soil hot spot areas
 2. Install underground barriers (slurry walls) to limit contaminated groundwater flow to the Bay
- Spring 2014
 3. Install protective liner and soil cover over landfill and surrounding areas
 4. Remove and treat landfill gas
- Summer 2014
 5. Build a shoreline rock wall (revetment)
 6. Build new wetlands
 7. Long-term management of the remedy



Hot Spot Excavations



Hot Spot Excavations

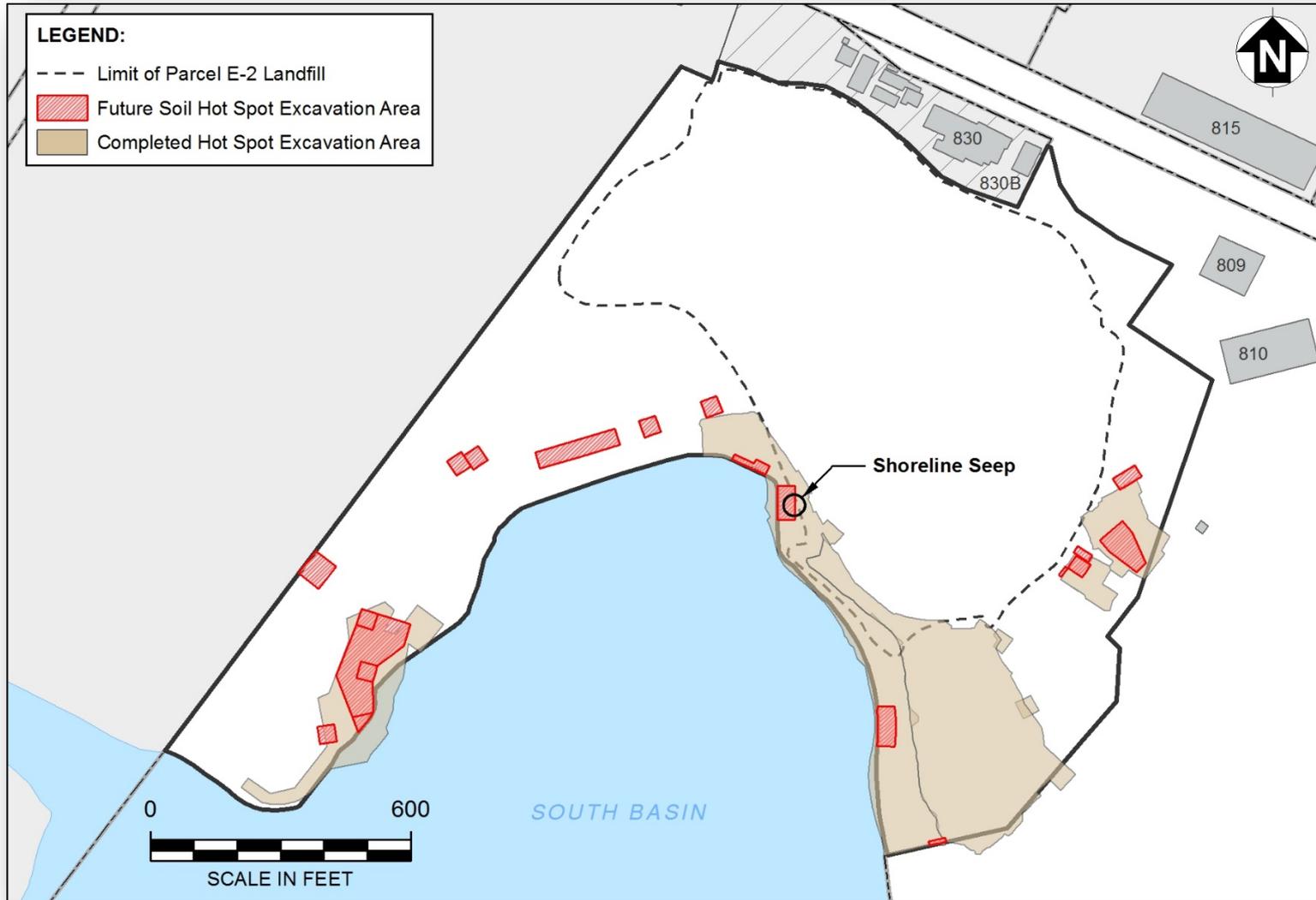


- Hot Spots are underground soil areas of chemical contamination outside the landfill that could pose a risk to human health or the environment if they were uncovered
- The Navy has already excavated and hauled off over **6,000 truckloads** of hot spot soil from Parcel E-2
- 20 Hot Spots covering about 2 acres are planned for excavation
 - Excavation depths range from 3 to 16 feet deep
 - Navy plans to excavate about **1,400 truckloads**
- Chemical contamination in soil being excavated includes metals, PCBs, petroleum and solvents





Hot Spot Excavations

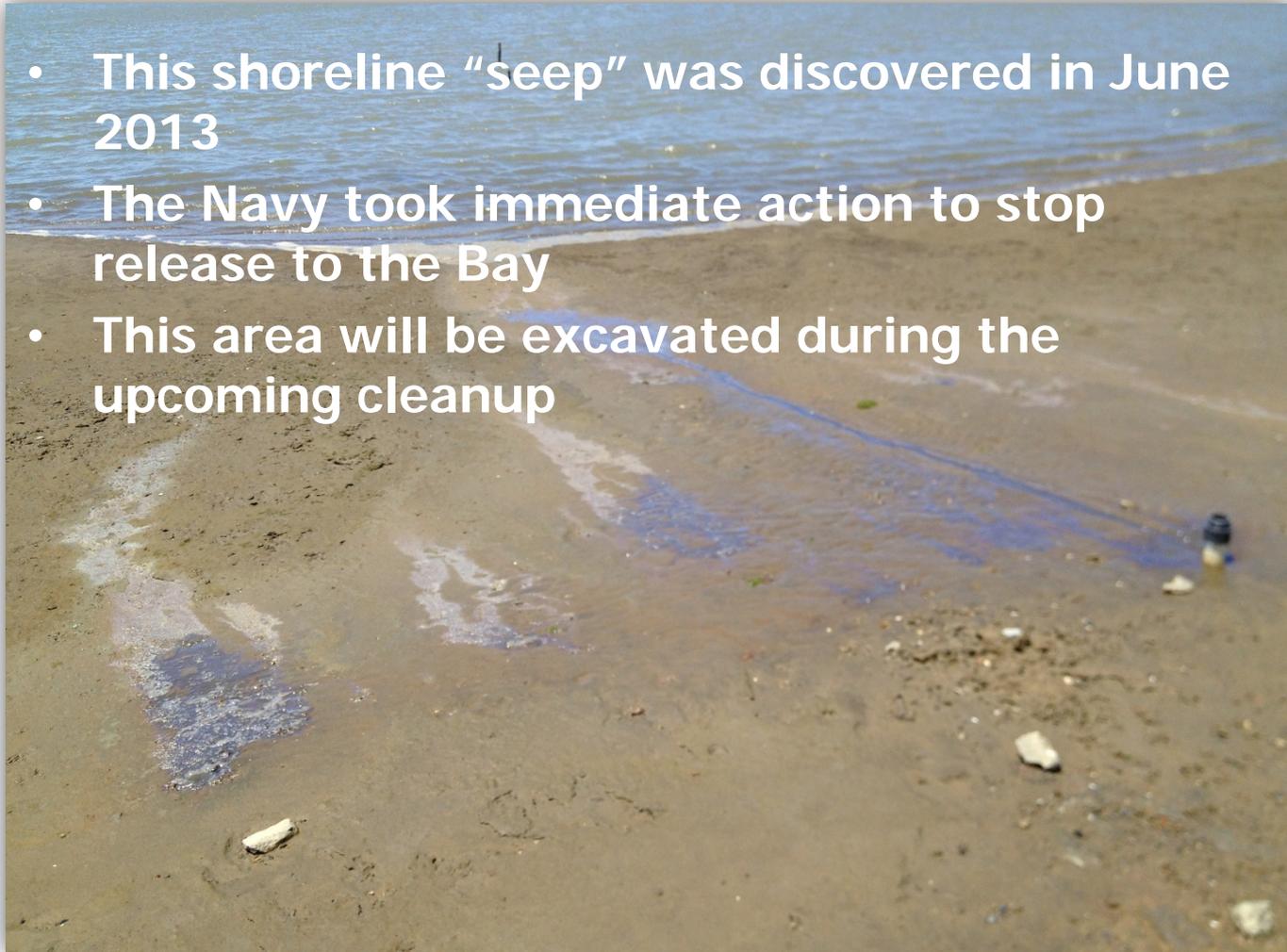




Shoreline Area to be Excavated



- This shoreline "seep" was discovered in June 2013
- The Navy took immediate action to stop release to the Bay
- This area will be excavated during the upcoming cleanup





Navy Response – Absorbent Mat Placement



The Navy placed an adsorbent mat on the shoreline seep area



The mat was anchored on all sides





Navy Response – Sand Cover Placement



The mat was then covered with a foot of sand

The Navy inspects the area weekly to make sure the mat and sand stay in place





Soil Hot Spot Removal



Soil hot spot area along the southwest shoreline

Soil hot spot area along the southeast shoreline





Digging Safety Procedures



**CONTINUOUS DUST CONTROL
USING WATER TRUCKS**



**CONTINUOUS UPWIND AND
DOWNWIND AIR MONITORING**



**SILT CURTAIN IN PLACE DURING THE
SHORELINE CONSTRUCTION PERIOD
TO PROTECT THE SAN FRANCISCO BAY**



Underground Barriers



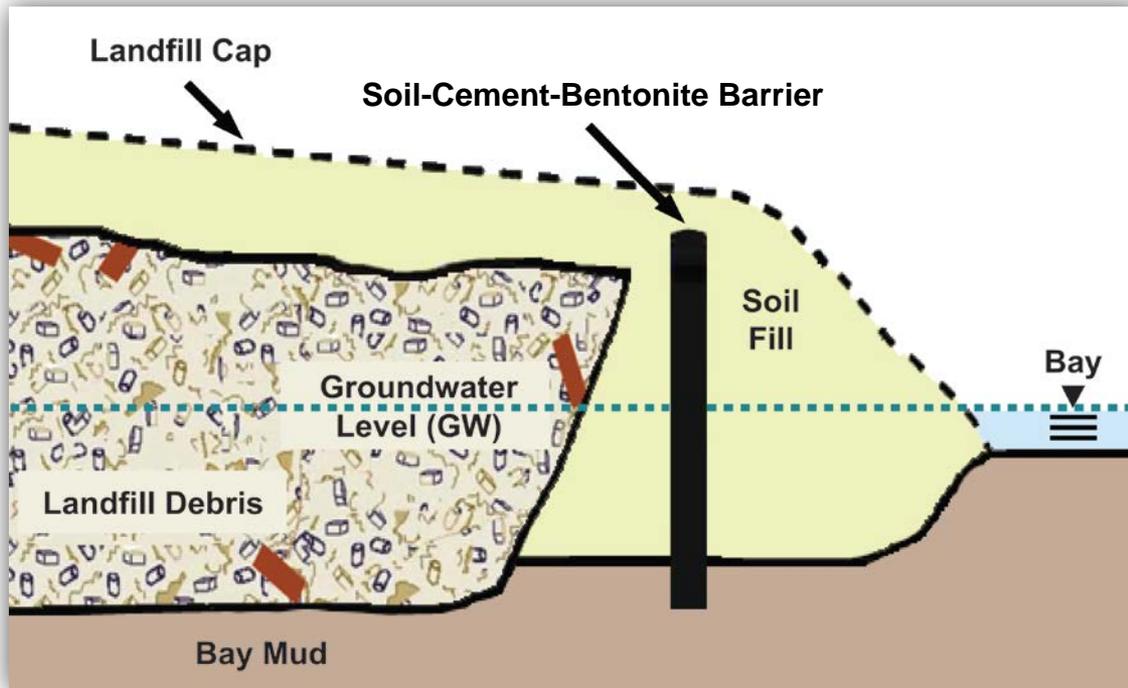
Underground Barriers



- The Navy will install two underground barriers (slurry walls)
 1. Nearshore between the Bay and the landfill
 2. Upland along the western property boundary upgradient of the landfill
- Slurry walls are vertical structures built underground
- Slurry walls are made of wet clay mixed with soil and cement
- Slurry walls reduce flow of underground water from one place to another (like an underground dam)

Nearshore Barrier

- The nearshore slurry wall will:
 - Be over 1,200 feet along the shoreline
 - Minimize the amount of groundwater flow from the landfill to the Bay



Cross-Section of Slurry Wall Between Landfill and Bay

- Why do we need to install a nearshore slurry wall?
 - To be a barrier between the landfill and the Bay



Upland Barrier



- The upland slurry wall will:
 - Be over 550 feet along the western property boundary
 - Reduce the amount of underground water flowing into the landfill



Underground Barriers

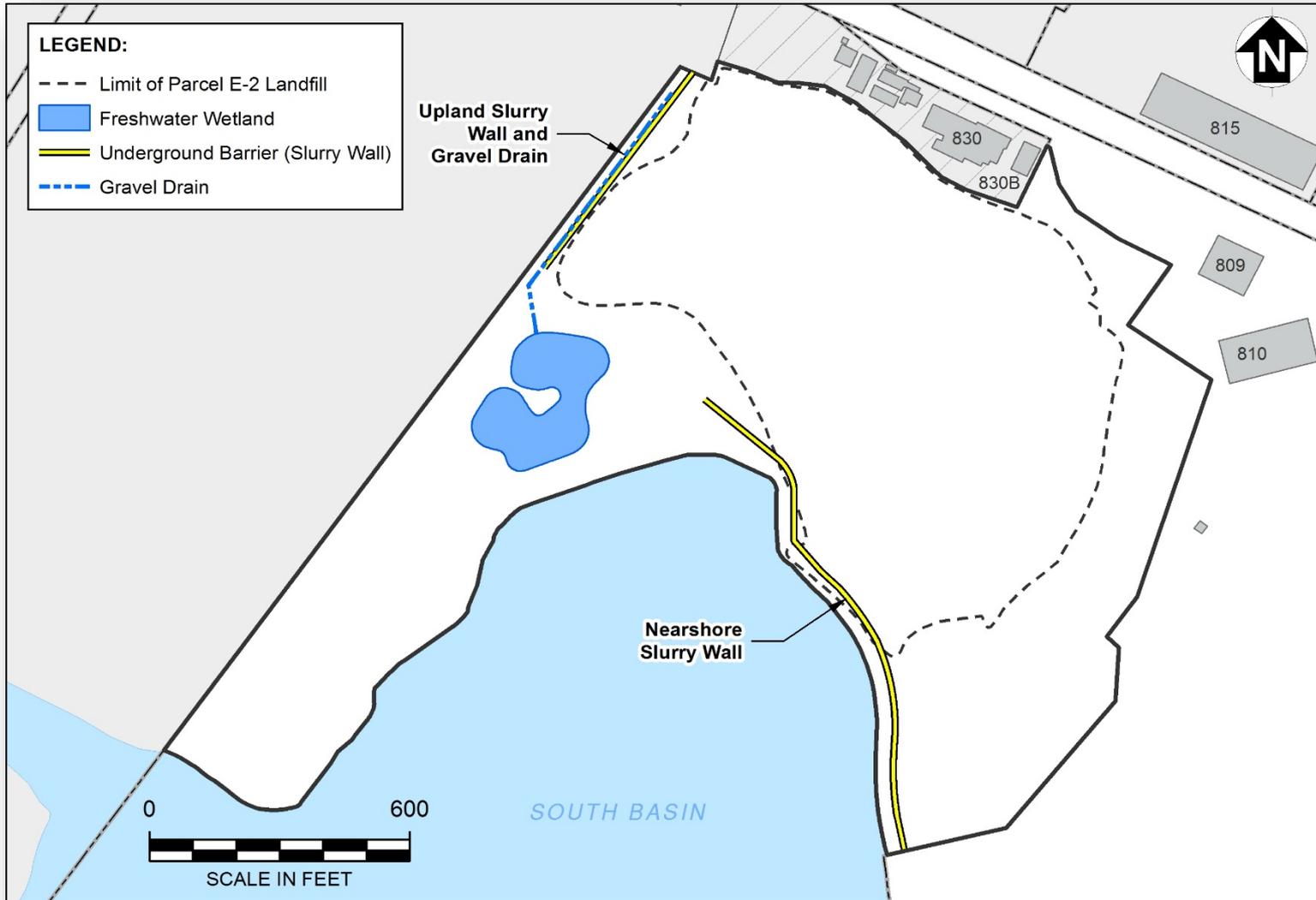


- Barriers are constructed by:
 1. Digging a long, deep trench
 2. Filling the trench with a clay and water mixture (the "slurry")
 3. Mixing clean soil and cement into the slurry





Underground Barrier Locations



Gravel Drain

- A Gravel Drain (French Drain) will be installed above the upland slurry wall to:
 - Move some of the water flowing from off the property into future freshwater wetlands



Example Gravel Drain (French Drain)



Next Steps



- **Spring 2014**
 - Submit Draft Final Remedial Design (RD)
 - Community Meeting to discuss Landfill Cover and Landfill Gas Collection System
- **Summer 2014**
 - Submit Final RD
 - Begin Hot Spot Excavation
 - Community Meeting to discuss Shoreline Revetment and Wetlands



Parcel E-2 Today

City Plan for Future Land Use



-  Bay Trail
-  Major Bike / Pedestrian Connection
-  Park Entry Points
-  Park Dimension

Grasslands Ecology Park

Park Area: 82.1 acres
(44.9 acres at Parcel E, 37.2 acres at Parcel E-2)

- 1** Picnic "Pod" and Shelters
- 2** Bay Nature Interpretive Play
- 3** Viewing/Windbreak Mound
- 4** Overlook Terrace
- 5** Amphitheater / Outdoor Classroom
- 6** Native Grasslands
- 7** Interpretive Center / Restroom
- 8** Native Plant Gardens
- 9** Viewing Pier
- 10** Freshwater Wetland (to be constructed by Navy)
- 11** Tidal Wetland (to be constructed by Navy)

Conceptual Plan for Parcel E-2



Additional Information



- Information Repositories contain project-related documents

San Francisco Main Library

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

Hunters Point Naval Shipyard Office Trailer

690 Hudson Street
San Francisco, CA 94124

- The Draft RD and this presentation can be found on the Internet at **www.bracpmo.navy.mil**



Navy Contact Information



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