Public Presentation

Proposed Plan for
Parcels E and UC-3
Hunters Point Naval Shipyard

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BRAC Program Management Office
February 28, 2013

Welcome and Introductions

Purpose of Tonight's Meeting

- Provide an overview of the Proposed Plan for Parcels E and UC-3
- Accept public comments on the Proposed Plan

Meeting Agenda

Time	Topic
6:00 p.m. – 6:20 p.m.	Meet the Navy and Review Display Boards
6:20 p.m. – 6:25 p.m.	Welcome and Introductions
6:25 p.m. – 6:30 p.m.	Meeting Format and Ground Rules
6:30 p.m. – 7:00 p.m.	Presentation on Parcels E/UC-3 Proposed Plan
7:00 p.m. – 7:10 p.m.	Break
7:10 p.m. – 7:20 p.m.	Regulator Perspective
7:20 p.m. – 7:35 p.m.	Answer Clarifying Questions on the Presentation
7:35 p.m. – 7:40 p.m.	Review of the Public Comment Process
7:40 p.m. - TBD	Receive Public Comments*

**Public comments will be received until all community members have had an opportunity to speak*

Meeting Format and Ground Rules

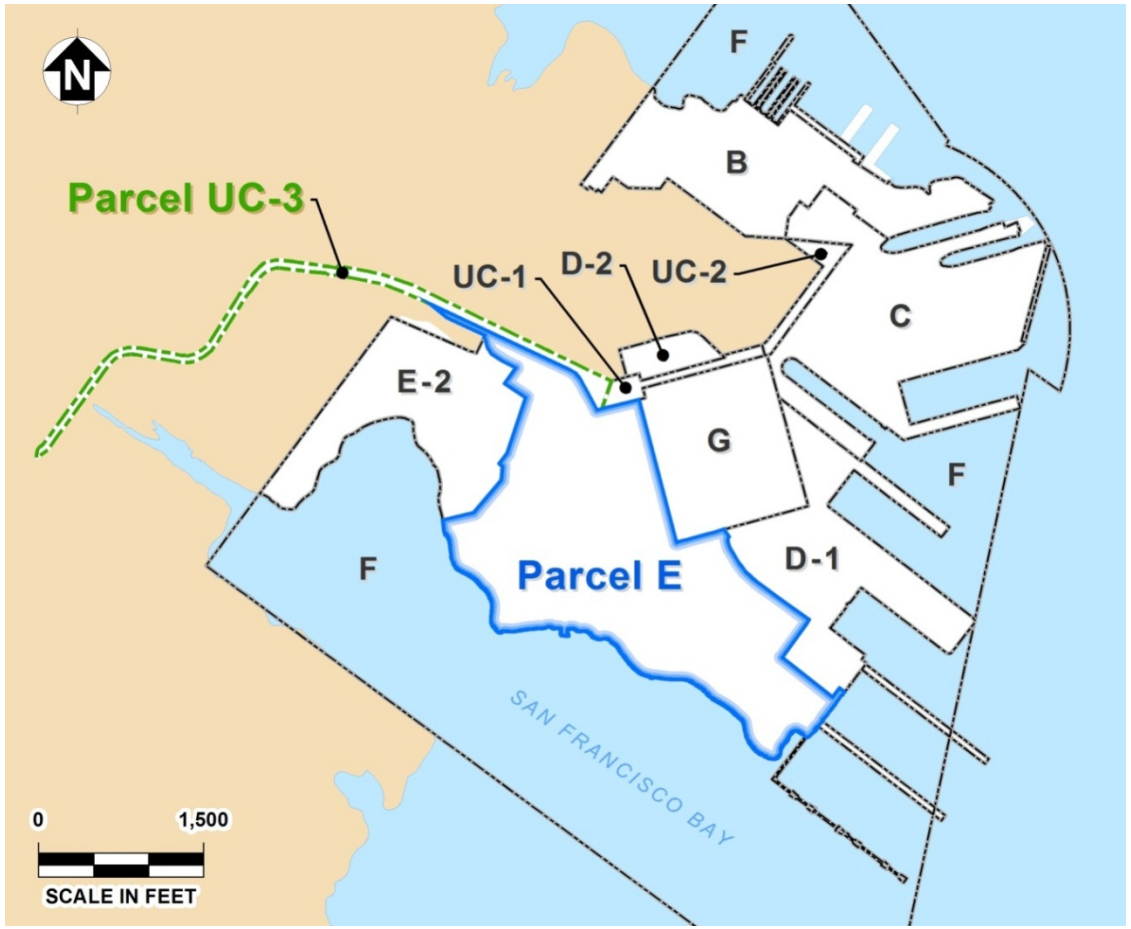
- **Respect** other participants.
- Please **hold questions and comments** until the end of the presentation.
- Speak **one at a time**.
- There will be time for **everyone** to make comments (either spoken or in writing).
- There will be **3 minutes** for each speaker.
- Speakers will be allowed to continue **after others are given an opportunity to speak**.
- Please **review the handouts**.

What are we going to talk about?

- Location of Parcels E and UC-3
- History of Parcels E and UC-3
- Early cleanup actions
- Summary and evaluation of remedial alternatives
- Preferred alternatives
- Next steps and additional information

Location of Parcels E and UC-3

- Parcel E includes about 128 acres located in the southwest part of HPNS.
- Parcel UC-3 includes about 11 acres in the western part of HPNS.



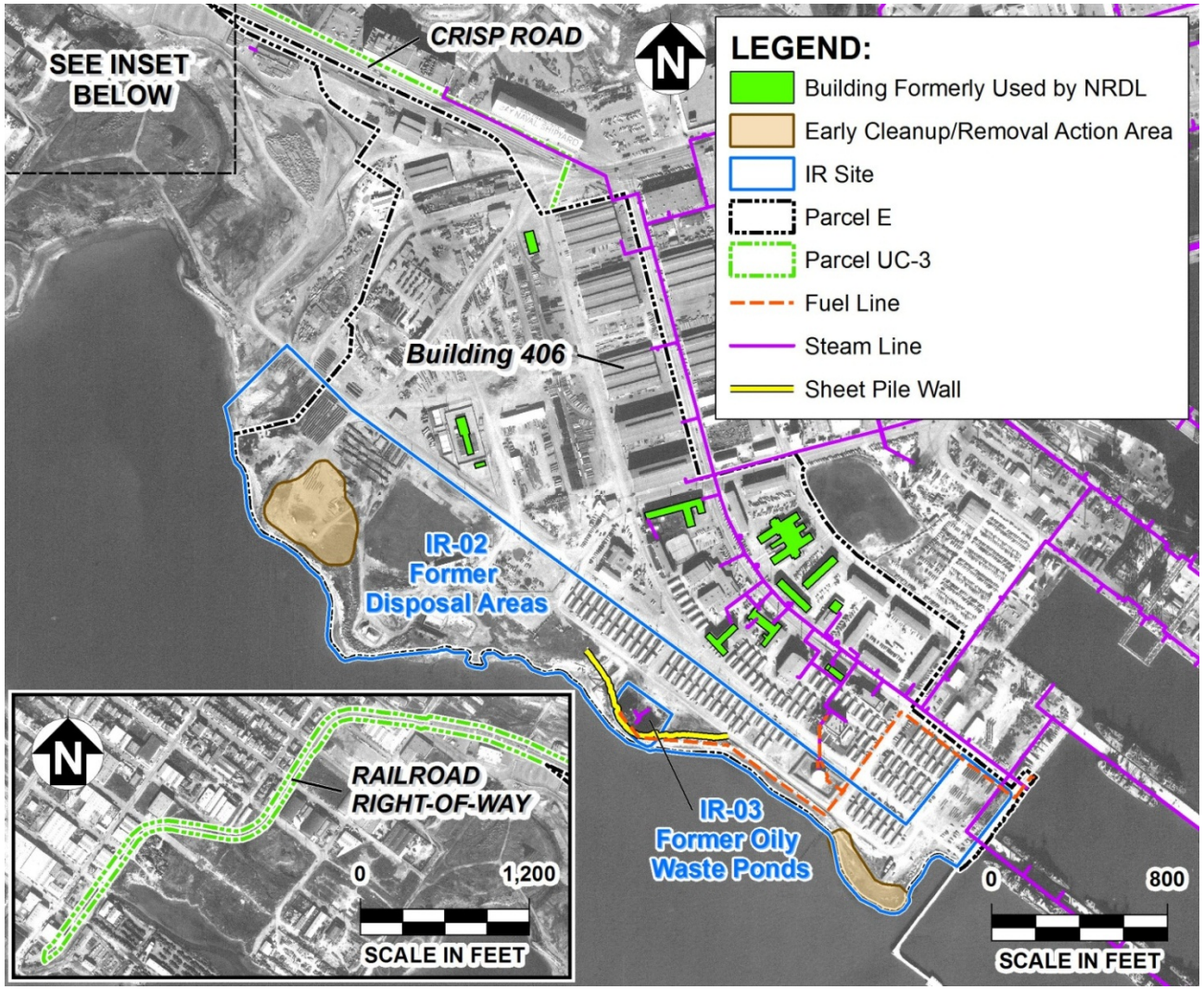
History of Parcel E

- Parcel E was used as an industrial support area, and includes these potential sources of contamination:
  - Warehouse (Building 406) where chemical solvents were spilled
  - Former Oily Waste Ponds where contaminated waste oil was stored and seeped into the ground
  - Shoreline areas where construction and industrial debris was stored and disposed
  - Buildings used by the Naval Radiological Defense Laboratory

History of Parcel UC-3

- Parcel UC-3 consists of Crisp Road and a railroad right-of-way that were used to transport materials and equipment to and from the shipyard
- Chemical contamination at Parcel UC-3 likely resulted from miscellaneous spills while the Navy operated and maintained the railroad

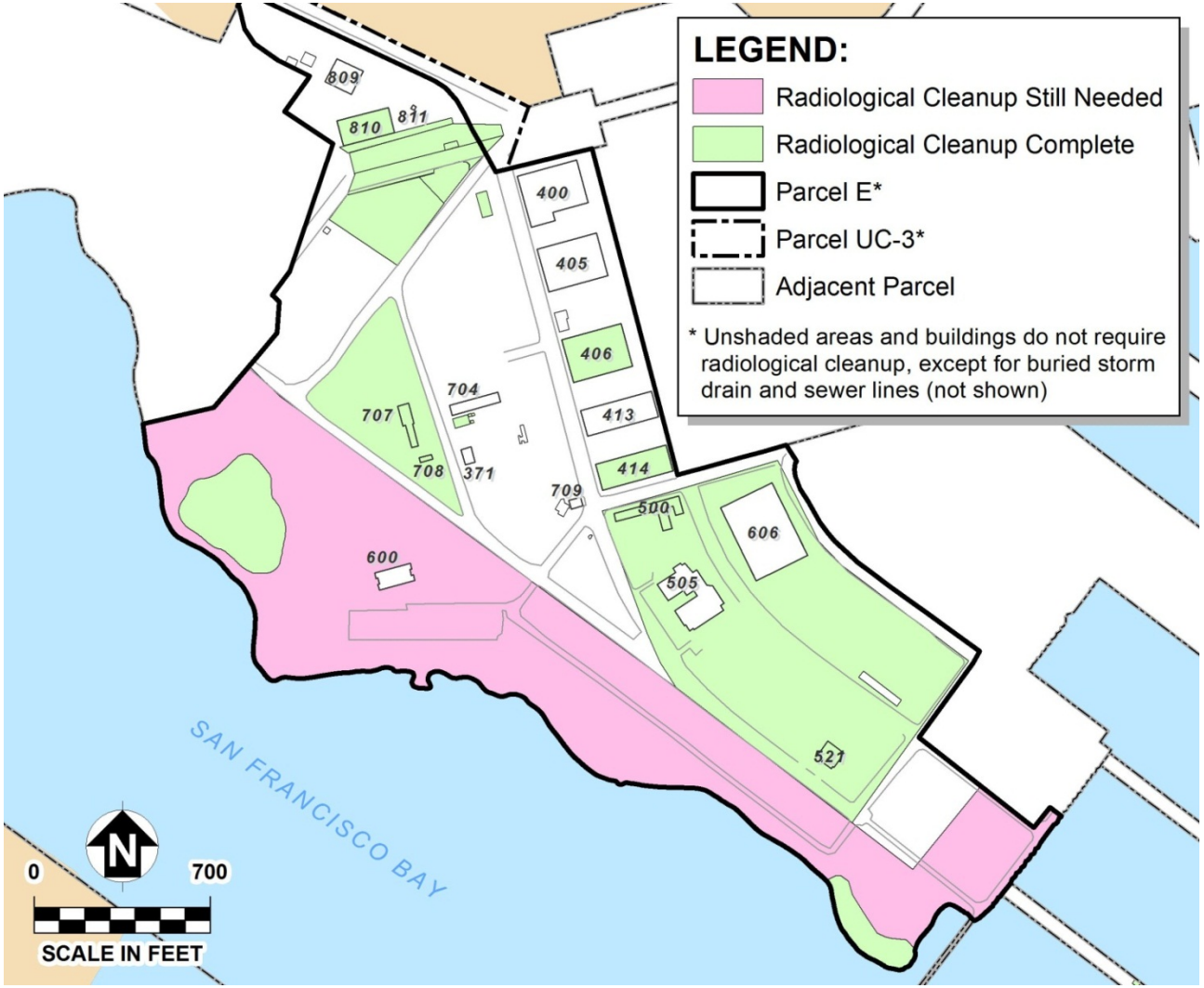
1969 Aerial Photograph



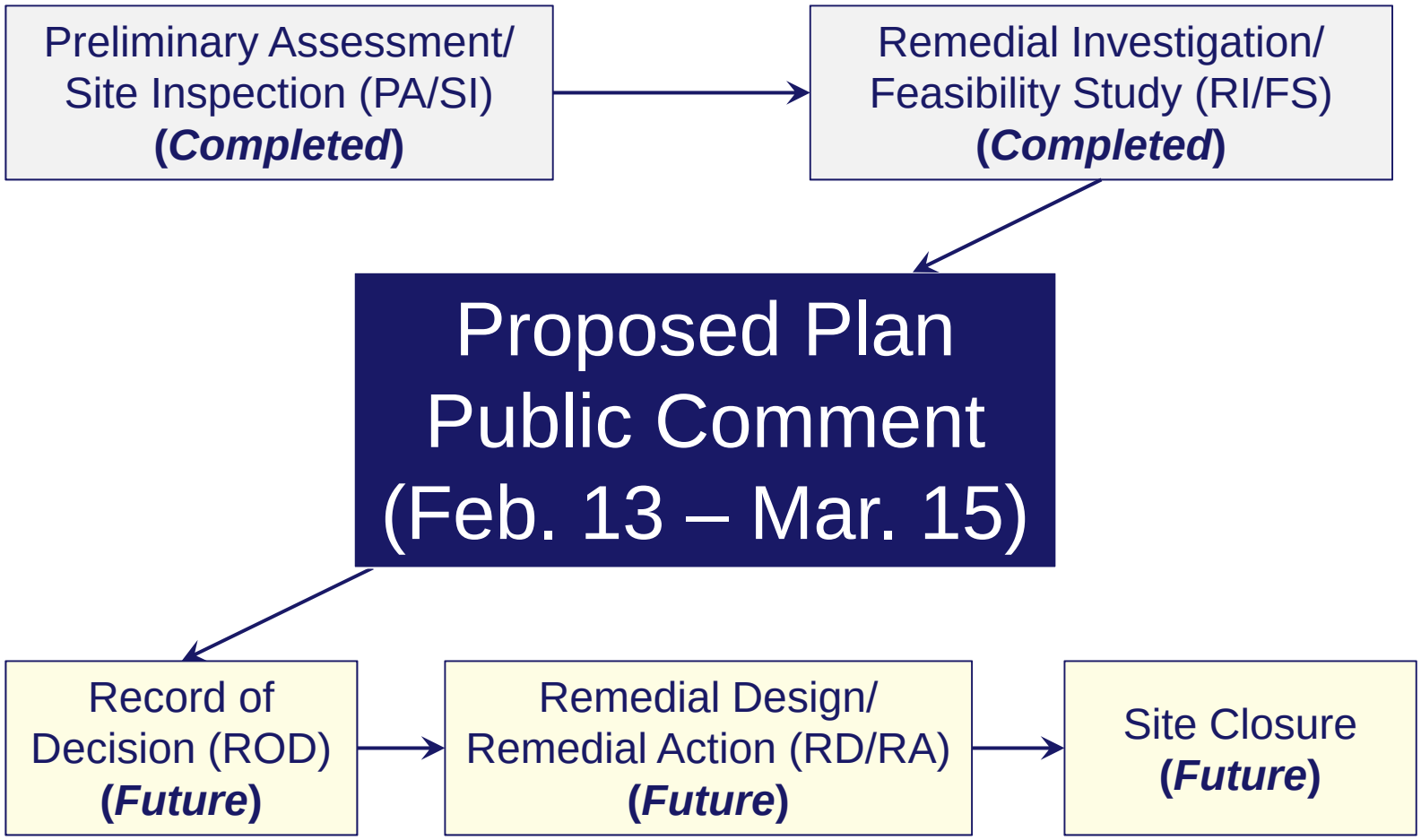
Early Cleanup Actions at Parcel E

- The Navy has performed numerous early cleanup actions:
  - Removal and screening of over 60,000 cubic yards (about 4,600 truckloads) of soil and debris with potential radiological contamination from two shoreline areas
  - Installation of a protective liner and a 900-foot-long below-ground barrier at the Former Oily Waste Ponds
  - Removal and cleanup of 8 underground storage tanks and 12 aboveground storage tanks
  - Removal and cleanup of radiological contamination at various sites and buildings in Parcel E
- Despite the early cleanup actions, contamination remains elsewhere at Parcels E and UC-3, which the Navy intends to address with the Preferred Alternatives described in this Proposed Plan

Radiological Cleanup to Date



The Cleanup Process



Remedial (Cleanup) Alternatives

- The Navy evaluated remedial alternatives for remediation of:
  - **Soil** at Parcels E and UC-3
  - **Shoreline sediment** at Parcel E
  - **Groundwater** at Parcels E and UC-3
  - **Former Oily Waste Ponds** at Parcel E
  - **Residual radiological contamination** at Parcel E
- The Navy developed the remedial alternatives in consultation with EPA, DTSC, and the Water Board
- The remedial alternatives evaluated range from not taking any action to extensive remediation

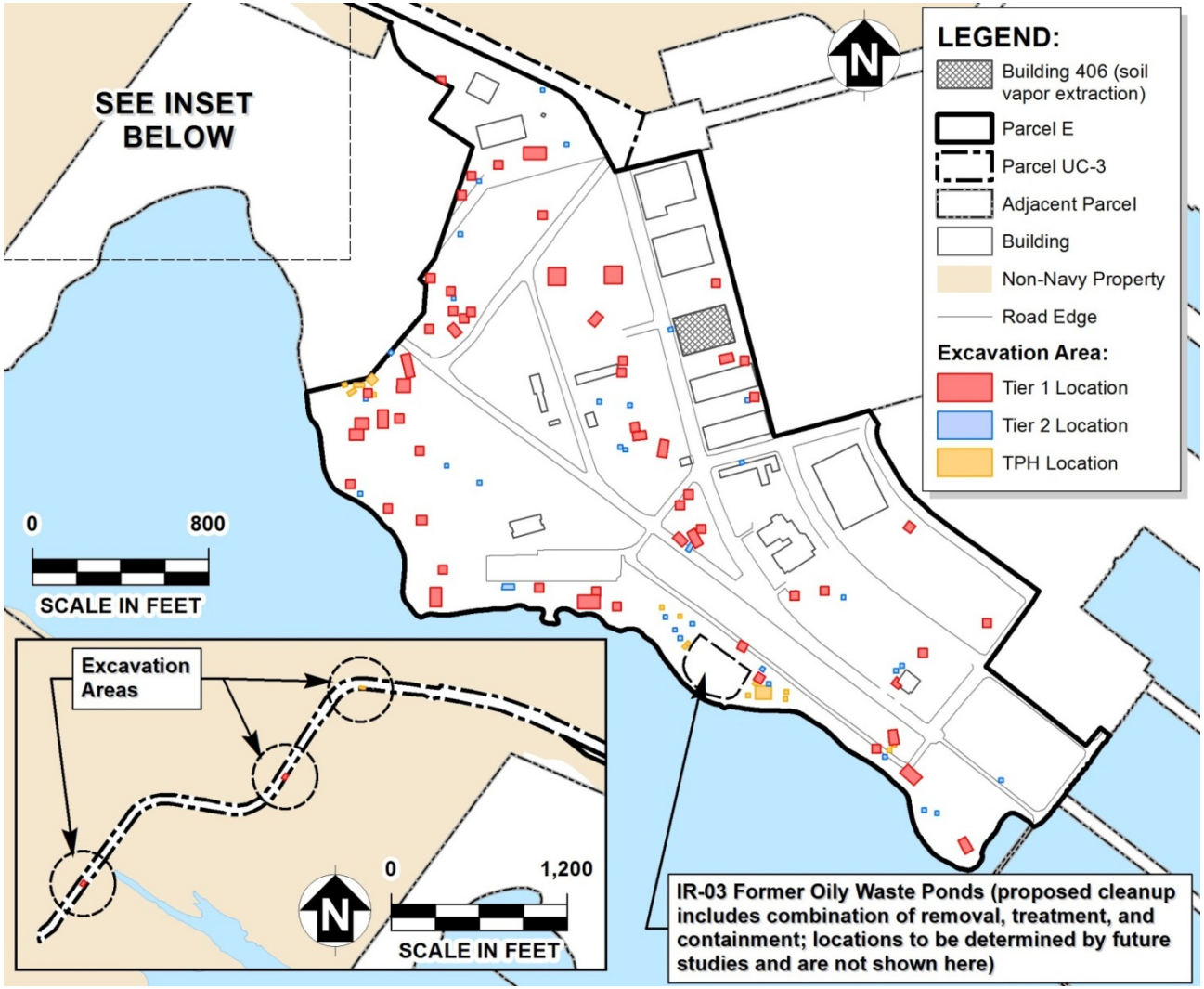
Remedial Alternatives for Soil and Shoreline Sediment

- S-1 No Action
- S-2 Covers and shoreline protection
- S-3 Same as Alternative S-2 plus:
  - Removal and disposal of Tier 1 locations
- S-4 Same as Alternative S-3 plus:
  - Removal and disposal of Tier 2 and petroleum locations
  - Soil vapor extraction (SVE) at Building 406

Remedial Alternatives for Soil and Shoreline Sediment

- The Navy identified future removal areas with the highest chemical contamination:
  - **Tier 1 locations** contain chemicals at concentrations **greater than 10 times** the preliminary remediation goals (PRGs)
  - **Tier 2 locations** contain chemicals at concentrations **greater than 5 times** the PRGs
  - **Petroleum locations** contain total petroleum hydrocarbons (TPH) at concentrations greater than the PRG
- Removal of contaminated soil at these locations will remove the most significant sources of contamination, and significantly reduce the risk to humans and wildlife. The remaining contamination is low level but widespread, which prevents complete removal.

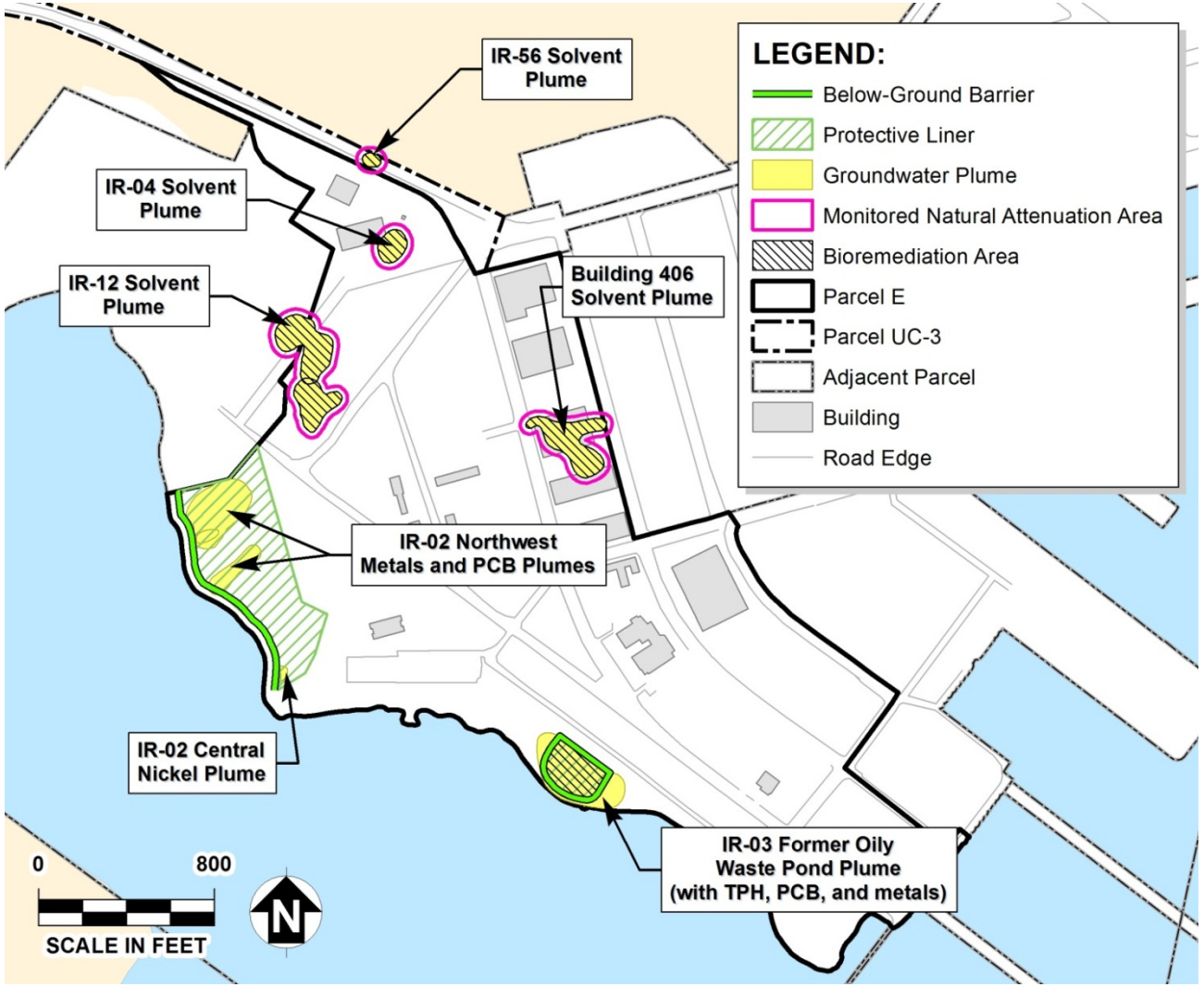
Remedial Alternatives for Soil and Shoreline Sediment



Remedial Alternatives for Groundwater

- GW-1 No Action
- GW-2 Long-term Monitoring
- GW-3 Long-term monitoring plus:
  - Groundwater containment (shoreline plumes at Parcel E)
  - Active treatment (other plumes in Parcels E and UC-3)
- GW-4 Same as Alternative GW-3 plus:
  - Different treatment (air sparging) at Building 406 plume

Remedial Alternatives for Groundwater



Remedial Alternatives for Former Oily Waste Ponds

• O-1	No action
• O-2	Containment (soil cover, protective liner, and below-ground barrier) and long-term monitoring
• O-3	Same as Alternative O-2 plus:
	– Removal or treatment of contaminated oil
• O-4	Same as Alternative O-3 plus:
	Active groundwater treatment
• O-5	Same as Alternative O-4 plus:
	– Removal of all contaminated oil above the groundwater
• O-6	Removal of all contaminated oil followed by long-term monitoring

Remedial Alternatives for Residual Radiological Contamination

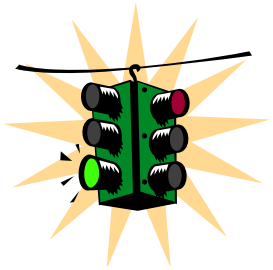
- **R-1** — No action
- **R-2** — Cleanup of contamination not already addressed by early cleanup actions:
  - Storm drain and sewer lines remaining at Parcel E
  - Shoreline areas at Parcel E (IR-02 and IR-03)

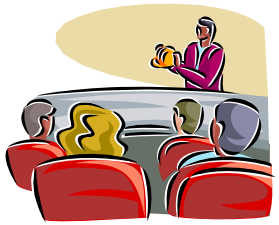
  Cleanup at IR-02 and IR-03 would consist of:
  - Removal and disposal of contamination near the ground surface (at least 1 foot deep)
  - Constructing 2-foot thick soil cover and demarcation layer
- **R-3** — Same as Alternative R-2 plus:
  - Constructing thicker (3-foot) soil cover at IR-02 and IR-03

Comparison Criteria for Alternatives

- The Navy evaluated each remedial alternative based on nine criteria developed by EPA
- The nine criteria fall into 3 categories:

Threshold Criteria (1 and 2) → **Balancing Criteria (3 through 7)** → **Modifying Criteria (8 and 9)**





- The nine criteria are identified on the following slide

Comparison Criteria for Alternatives *(continued)*

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

Comparison of Alternatives for Soil and Shoreline Sediment

Remedial Alternative	Overall Protection of Human Health and Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume via Treatment	Short-Term Effectiveness	Implement-ability	Cost ($M)	Overall
S-1: No Action	No	NA					0	
S-2: Covers, ICs, and Shoreline Protection	Yes	Yes					35.2	
S-3: Excavation and Offsite Disposal of Tier 1 Locations, followed by Covers, ICs, and Shoreline Protection	Yes	Yes					48.7	
S-4: Excavation and Offsite Disposal of Tier 1 and Tier 2 Locations, followed by Covers, SVE, ICs, and Shoreline Protection	**Yes**	**Yes**					50.2	

Notes:
Text in **blue** indicates preferred alternative.

Symbol:

Fill symbol by quarters from open (not acceptable) to full (excellent).

Comparison of Alternatives for Groundwater

Remedial Alternative	Overall Protection of Human Health and Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume via Treatment	Short-Term Effectiveness	Implement-ability	Cost ($M)	Overall
GW-1: No Action	No	NA					0	
GW-2: ICs and Long-Term Groundwater Monitoring	No	No					2.6	
GW-3: Groundwater Containment, In-Situ Treatment, MNA, and ICs	**Yes**	**Yes**					5.7	
GW-4: Groundwater Containment, In-Situ Treatment, Air Sparging, MNA, and ICs	Yes	Yes					5.9	

Notes:
Text in **blue** indicates preferred alternative.

Symbol:

Fill symbol by quarters from open (not acceptable) to full (excellent).

Comparison of Alternatives for Former Oily Waste Ponds

Remedial Alternative	Overall Protection of Human Health and Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume via Treatment	Short-Term Effectiveness	Implement-ability	Cost ($M)	Overall
O-1: No Action	No	NA					0	
O-2: Source Containment, Long-Term Monitoring, and ICs	Yes	Yes					1.7	
O-3: Source Removal or Treatment, Containment, MNA, and ICs	Yes	Yes					13.1	
O-4: Source Removal or Treatment, In-Situ Groundwater Treatment, Containment, MNA, and ICs	**Yes**	**Yes**					14.7	
O-5: Source Removal by Excavation and Extraction/ Treatment, In-Situ Groundwater Treatment, MNA, and ICs	Yes	Yes					22.0	
O-6: Source Removal by Excavation, MNA, and ICs	Yes	Yes					21.8	

Comparison of Alternatives for Residual Radiological Contamination

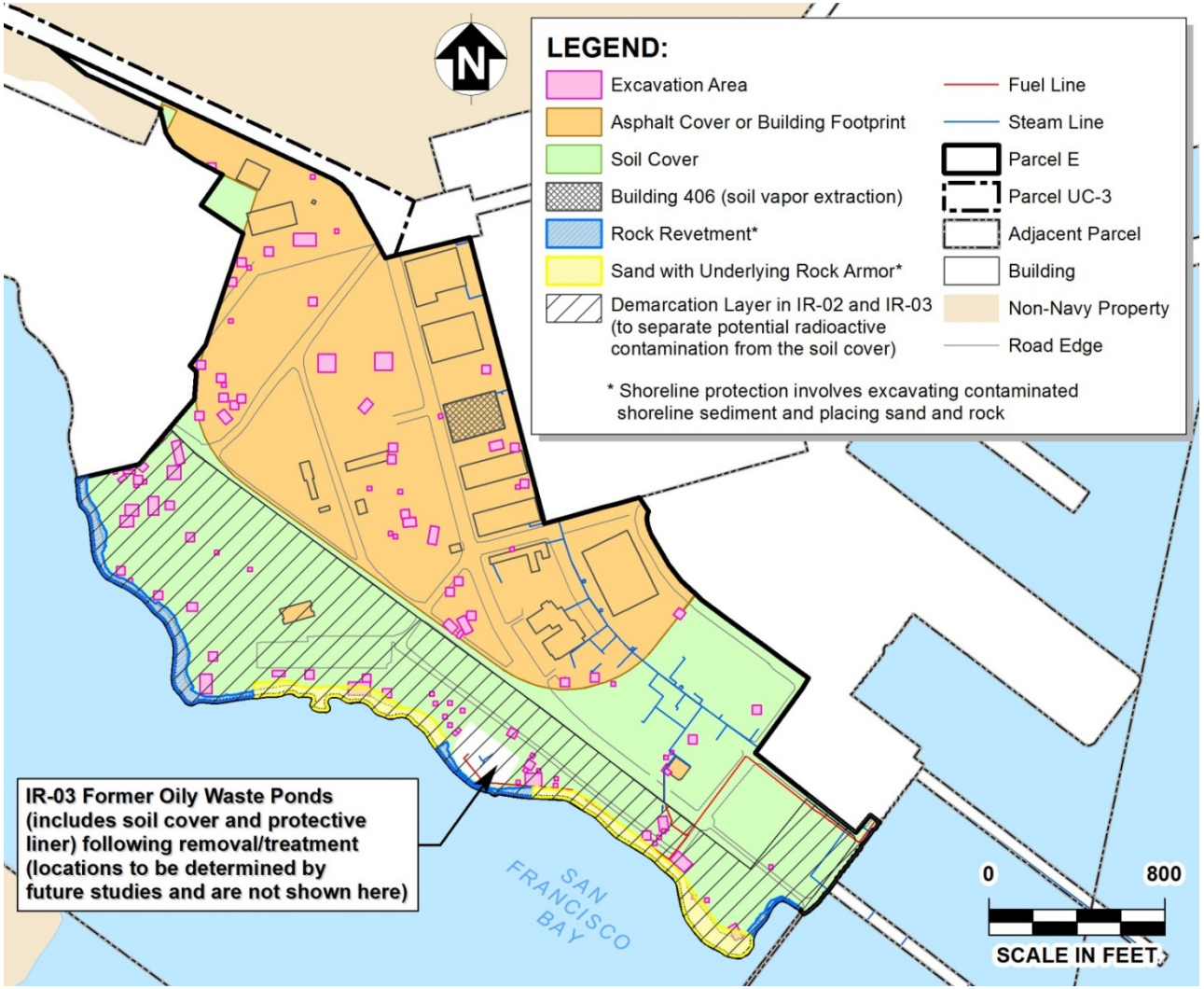
Remedial Alternative	Overall Protection of Human Health and Environment	Compliance with ARARs	Long-Term Effectiveness and Permanence	Reduction of Toxicity, Mobility, or Volume via Treatment	Short-Term Effectiveness	Implement-ability	Cost ($M)	Overall
R-1: No Action	No	NA					0	
R-2: Survey, Removal, and Disposal (with 2-foot-thick soil cover and ICs at IR-02 and IR-03)	**Yes**	**Yes**					34.9	
R-3: Survey, Removal, and Disposal (with 3-foot-thick soil cover and ICs at IR-02 and IR-03)	Yes	Yes					36.1	

Notes:
Text in **blue** indicates preferred alternative.

Symbol:

Fill symbol by quarters from open (not acceptable) to full (excellent).

Preferred Alternatives for Soil and Shoreline Sediment at Parcel E



Preferred Alternatives for Soil and Shoreline Sediment at Parcel E *(continued)*

Construction of Soil Cover and Demarcation Layer

Typical Vegetated Soil Cover

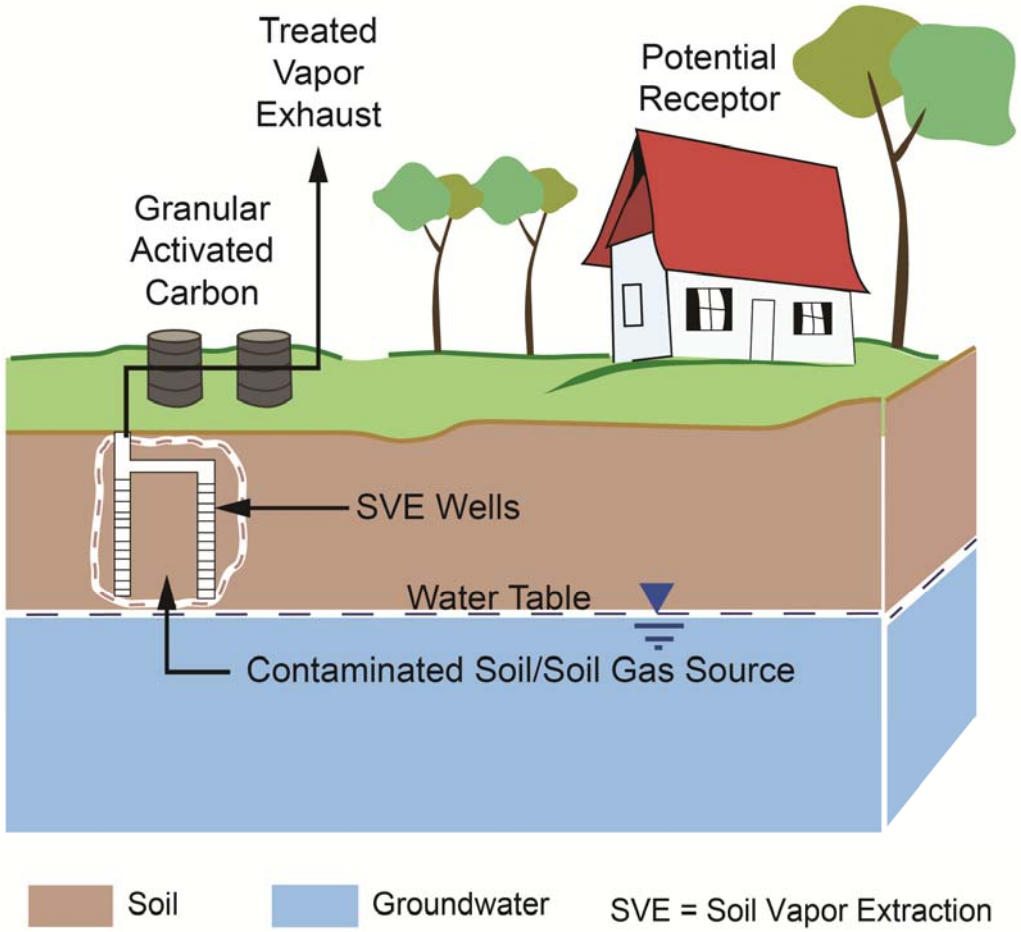
Preferred Alternatives for Soil and Shoreline Sediment at Parcel E *(continued)*

Sand with Underlying Rock Armor

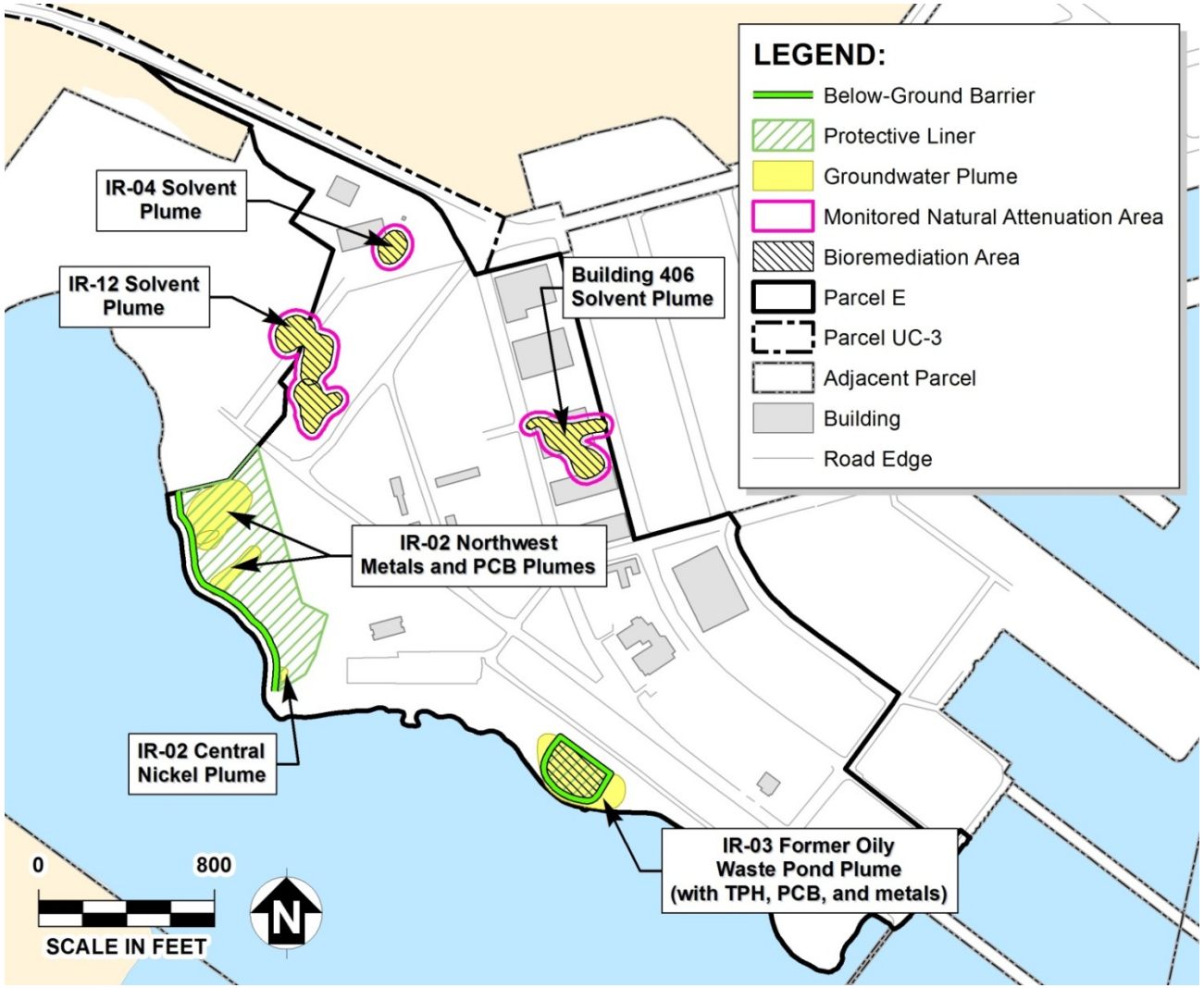
Rock Revetment

Preferred Alternatives for Soil and Shoreline Sediment at Parcel E *(continued)*

Drawing of Soil Vapor Extraction System

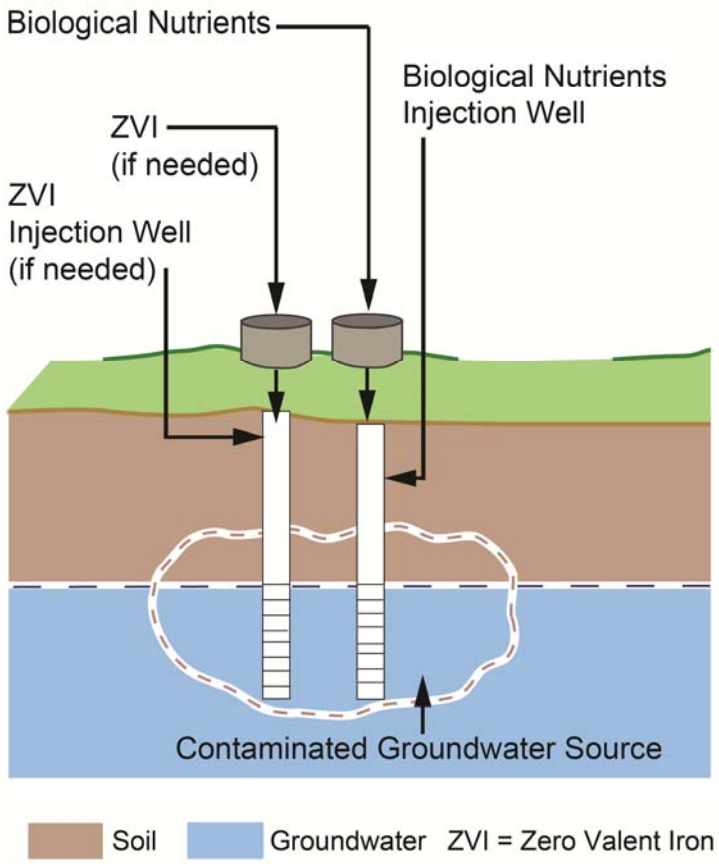


Preferred Alternatives for Groundwater at Parcel E



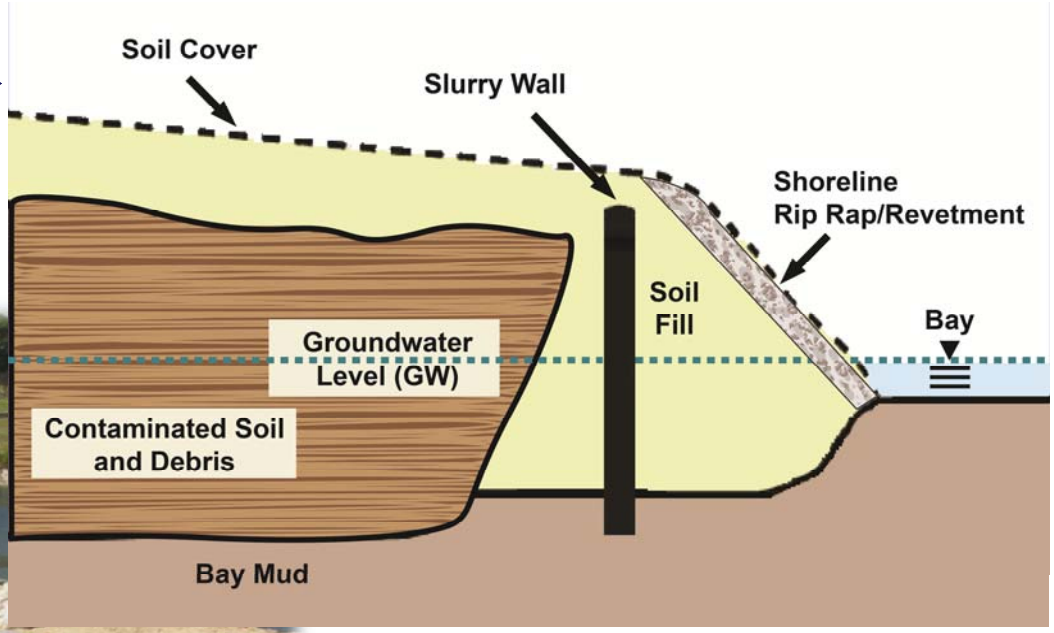
Preferred Alternatives for Groundwater at Parcel E *(continued)*

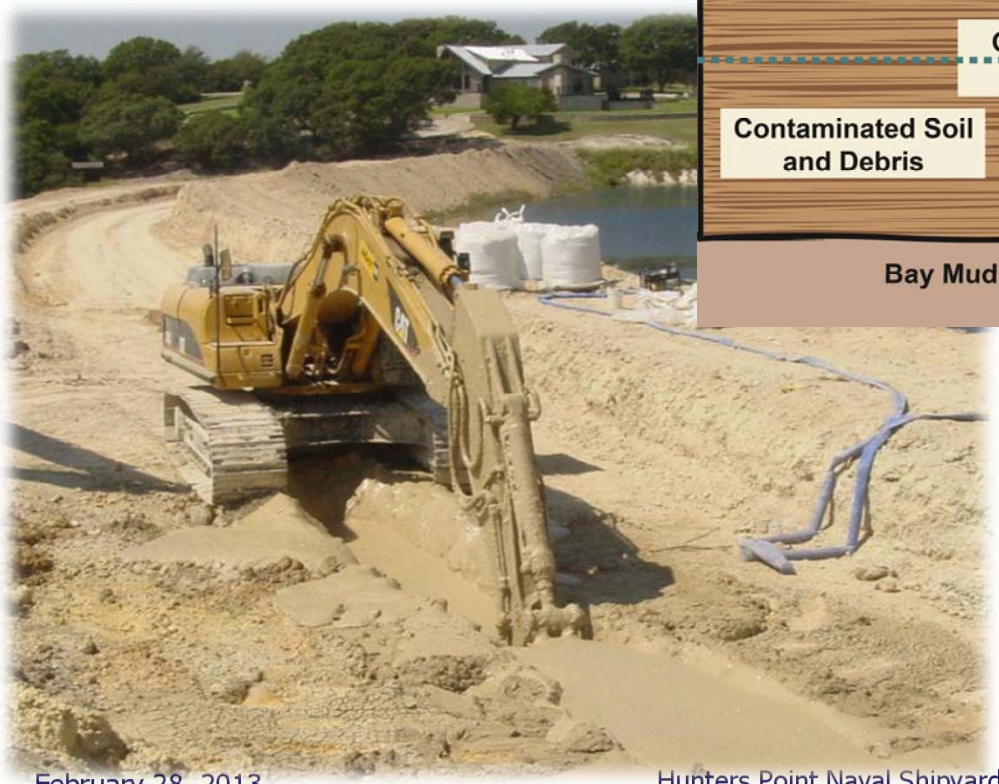
Drawing of Active Groundwater Treatment System



Preferred Alternatives for Groundwater at Parcel E *(continued)*

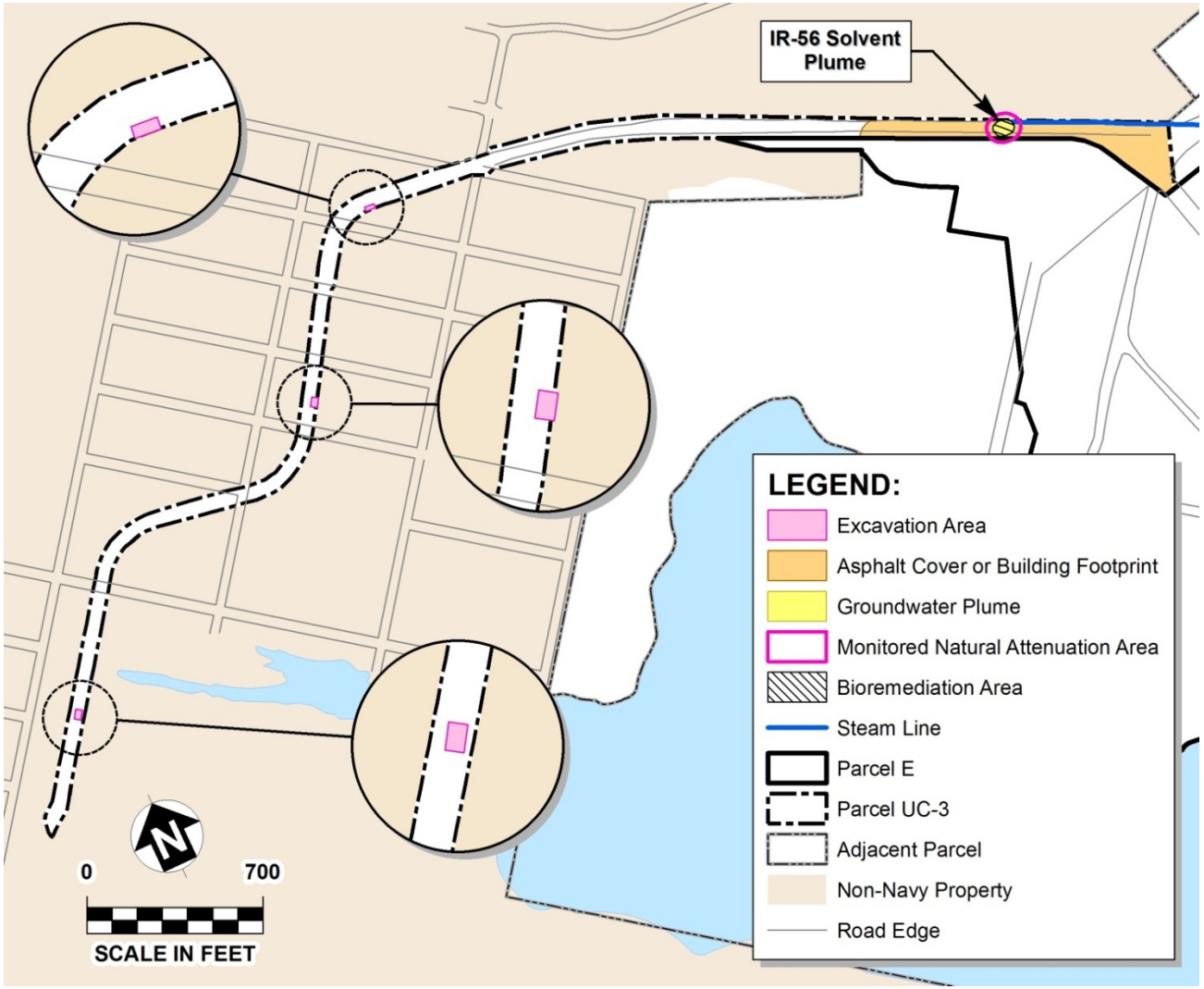
Cross-Section of Slurry Wall Between Plume and Bay →





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

Preferred Alternatives for Parcel UC-3



Why are these the Preferred Alternatives?

- Protects people and wildlife from being exposed to contamination that may pose an unacceptable risk
  - Removes and disposes of contaminated soil that poses the greatest risk to people
  - Treats contaminated groundwater that poses the greatest risk to people
  - Installs covers and below-ground barriers to prevent contact with remaining low-level contamination
  - Includes long-term monitoring and maintenance

Why are these the Preferred Alternatives? *(continued)*

- The remaining contamination can be safely contained because the Navy's investigations show that:
  - Low-level soil contamination consists of chemicals (such as metals and polychlorinated biphenyls) that are not mobile
  - Residual low level radiological contamination at IR-02 and IR-03 consists of mostly of scattered glow-in-the-dark dials that can be safely managed in place

Why are these the Preferred Alternatives? *(continued)*

- The preferred alternatives:
  - Will protect people and wildlife
  - Are consistent with state law, federal law and EPA national policy
  - Are consistent with the anticipated reuse/redevelopment of the property

Next Steps

- **Proposed Plan**
  - Public comments due March 15, 2013
- **Records of Decision (RODs)**
  - RODs will include responses to public comments
  - RODs will identify the final remedy for Parcels E and UC-3
  - Two separate RODs will be prepared, one for Parcel E and one for Parcel UC-3
- **Design and build the final remedies for Parcels E and UC-3** (Remedial Design/Remedial Action)

How to Provide Comments Tonight

- **Submit a written comment tonight**, or **speak your comment during the formal comment period** which follows this presentation

How to Provide Comments After Tonight

- After this meeting, **mail, e-mail,** or **fax comments to:**

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Provide comments no later than Friday, March 15, 2013

Project Contacts

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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 on the Internet at **www.bracpmo.navy.mil**