



**Naval Facilities Engineering Systems Command Southwest  
Base Realignment and Closure  
Program Management Office West  
San Diego, California**

**FINAL  
Restoration Advisory Board  
Meeting Minutes, Meeting Number 213**

Former Naval Station Treasure Island  
San Francisco, California

September 1, 2023

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San Francisco, California

September 1, 2023

DCN: TRBW-0202-4856-0133

Prepared for:



**Department of the Navy  
Naval Facilities Engineering Systems Command Southwest  
BRAC PMO West  
33000 Nixie Way, Building 50  
San Diego, California 92147**

Prepared by:



**9775 Businesspark Avenue, Suite 200  
San Diego, California 92131**

Contract Number: N62473-18-D-0202; Task Order No. N6247320F4856

**FINAL  
MEETING MINUTES  
RESTORATION ADVISORY BOARD  
FORMER NAVAL STATION TREASURE ISLAND  
9 May 2023  
Meeting Number 213  
Virtual Meeting Number 13**

Community Restoration Advisory Board (RAB) Members in attendance:

Alice Pilram, Nathan Brennan, Dale Smith, John Gee

Department of the Navy (Navy) and Regulatory Agency RAB Members in attendance:

Jeff White, San Francisco Bay Regional Water Quality Control Board (Water Board)  
Kimberly Walsh, Department of Toxic Substances Control (DTSC)

Other Navy, Regulatory Staff, and Consultant Representatives in attendance:

Dave Clark, Navy Lead Remedial Project Manager  
Janet Lear, Navy  
William Franklin, Navy  
Marsha Maloof, Maloof & Associates, Meeting Facilitator  
Bob Beck, Treasure Island Development Authority (TIDA)  
Christine Niccoli, Court Reporter  
Geoff Mordock, FleishmanHillard  
Rick Wice, Battelle  
Megan Kranz, Trevet-Bay West Joint Venture (Trevet-Bay West)  
Maddison Laeber, Trevet-Bay West

Public Guests in attendance:

Carol Harvey, Journalist  
James Pepper, Blogger  
Shirletha  
Skylar Sacoolas, Greenaction for Health and Environmental Justice

## Welcome Remarks and Agenda Review

Marsha Maloof (Facilitator) opened the May 2023 RAB meeting for Former Naval Station Treasure Island (NSTI), held virtually. Introductions were initiated and the agenda was reviewed (Attachment A).

Alice Pilram (RAB Community Co-Chair) expressed her excitement about the RAB's upcoming in-person meeting and potential tour of the island.

## New Business—Environmental Program Overview

Dave Clark (Navy) introduced the PFAS Overview presentation (Attachment B).

Mr. Clark began his presentation by reviewing progress made to date at Site 12. Final remedies are yet to be selected for Site 12. A non-radiological remedy was implemented at the majority of Site 12. The remedy was documented in the 2017 record of decision (ROD), but it did not address all Solid Waste Disposal Area (SWDA) landfill areas. A major milestone was met with completion of the Westside SWDA Phase IV Non Time-Critical Removal Action (NTCRA). The conceptual site model update and 1400 Series radiological no further action report were also completed.

The next step at Site 12 is the feasibility study (FS) addendum #2, which will identify a remedy that is protective of human health and the environment and account for the reasonably anticipated future reuse of the site. The primary goal for Site 12 is to eventually memorialize the remedy in a ROD.

Additional ongoing work in support of FS addendum #2 includes the post-construction summary report (PCSR) for Westside SWDA Phase IV NTCRA, an explanation of significant differences (ESD), and more excavation in the Site 12 empty lot area. The ESD will establish an arsenic groundwater remedial goal (RG) at the Gateview Avenue petroleum area, and additional excavation will extend previous excavation work to remove residual polycyclic aromatic hydrocarbons and total petroleum hydrocarbon contaminated soil from the location of a removed prior underground storage tank.

Site 12 has two future land uses, identified as the development area and the open space area. The development area designates areas with planned residential use. Part of the development area has been recommended for no further action for radiological contamination, while the remaining part retains subsurface radiological issues that need to be addressed. The open space areas include identified landfill areas with an engineered cover as the presumptive remedy. An upgraded perimeter seawall to address sea level rise is also being considered.

Mr. Clark then reviewed planned actions for per- and polyfluoroalkyl substances (PFAS). These activities include establishing a background area for nearshore sampling, developing a remedial investigation (RI) addendum and reactive barrier pilot test for Site 6 PFAS, and continuing the basewide PFAS investigations.

The Site 6 PFAS RI was sent to the regulatory agencies in April 2023 and is under review. The Navy is currently evaluating how RI data will be integrated into the new planning documents for the Site 6 PFAS RI Addendum. Site 6 PFAS SI reporting is also in process and the draft document was distributed to the agencies for review in April 2023. The Navy is evaluating a path forward for future basewide PFAS evaluation.

Mr. Clark summarized the status of ESD land use control (LUC) remedial design (RD) documents for various sites.

The 2015 Site 24 ROD identified chlorinated solvents. The second five-year review (FYR), issued in 2020, identified soil gas RGs that must be reevaluated based on revised regulations. As a result, the Navy drafted an ESD to revise the chlorinated solvent RGs for residential and commercial/industrial workers. No new applicable or relevant and appropriate requirements (ARAR) were identified. This will lead to a revision of the LUC RD incorporating recent soil gas monitoring data and a determination of whether or not

the plume extent is bounded. If needed, the area requiring institutional controls (ARIC) will be updated.

An ESD for Site 6 was published to revise the RG for arsenic in groundwater based on new toxicity criteria. No new ARARs were identified, although the footprint of the ARIC may need to be revised.

Evaluation of risk at Site 12 did not originally consider potential arsenic exposure for construction workers. As such, an RG of 35 micrograms/Liter is being added. This will likely require LUCs as a part of the groundwater management plan.

The draft Site 6 ESD was submitted in March 2023. The final Site 24 ESD and draft Site 12 ESD were both submitted in April 2023. The draft LUC RDs for Sites 24, 12, and 6 are anticipated for delivery in 2023.

Mr. Clark explained that the focus of FYRs is to evaluate the implementation and efficacy of a remedy and determine if it is still protective of human health and the environment. The upcoming third FYR will cover Sites 6, 12, 21, 24, 27, and 30, the same six sites as the second FYR. The review of Site 12 will differ from the previous FYR because the implemented soil remedy was not in place at the time of the second FYR and will now be included. The third FYR is targeted for finalization by late 2025.

The second FYR found that Sites 21, 27, and 30 are protective, Site 24 is protective in the short term, and the status of Sites 6 and 12 is protectiveness deferred. Protective in the short term means that the remedy is protective, although additional action is required to maintain protectiveness long term. Protectiveness deferred means that the determination of whether the remedy is protective has been deferred until more information is collected and evaluated. Site 6 was deferred pending further information about PFAS at the site, which will be part of the third FYR evaluation. Site 12 was protective in the short term, relative to establishing a new RG for construction worker exposure to arsenic.

The Navy expects that a third FYR contract will be in place by the end of the year. An internal draft FYR report will be prepared in 2024, a draft report will be distributed by early 2025, and the final document by completed by August 2025.

Mr. Clark brought up the topic of YF3, a site on Yerba Buena Island and the only remaining petroleum pipeline site at NSTI. Land surveying and a geophysical study will be performed to find bedrock, identify other aspects of the geology, and understand the horizontal and vertical extent of the residual petroleum contamination. The Navy plans to create a data gaps work plan in 2023 and perform fieldwork from 2023 through 2024., the Navy will evaluate alternatives in 2024 and create a corrective action work plan in 2025. Implementation of the work plan is expected in 2026.

John Gee (RAB Member) asked what was meant on slide 22 by a non-cancer risk being greater than one. Mr. Clark explained that in risk assessment, health impacts are separated into cancer and non-cancer risk.

Nathan Brennan (RAB Member) asked if the transfer pads contaminated with polycyclic biphenyls are discussed in the FYR. Mr. Clark said that they are not included in the FYR

process because it is not a Comprehensive Environmental Response, Compensation, and Liability Act aspect of the remedy.

Dale Smith (RAB Member) expressed her concern with the Navy not distinguishing landfill areas from contamination load areas, because all of NSTI is a landfill area. Mr. Clark explained that the Navy uses the term “landfill area” because people generally associate disposal areas with the term “contamination”. This is to distinguish between the landfill areas and the rest of the island that was constructed from “fill.” The Navy will consider how these areas will be referred to in the Feasibility Study Addendum.

Ms. Smith said that the Navy is not addressing nearshore contamination associated with Yerba Buena Island and Clipper Cove and expressed her concern about how this affects benthic, aquatic, and avian species in the area. She asked if the Navy is abiding by new regulatory standards for RGs. Mr. Clark responded that the Navy’s RGs have to take into consideration regulatory standards.

Ms. Smith asked why the Navy is primarily considering a small part of YF3, rather than the whole site. Mr. Clark responded that the pipeline closure report evaluated YF3 as a whole and determined that the only part of the site in need of further evaluation was the shoreline area.

James Pepper (Blogger) stated that according to Department of Defense regulations, the Navy cannot transfer NSTI to the City of San Francisco.

Mr. Pepper asked when aqueous film-forming foam was used at NSTI. Mr. Clark responded that its use began in the late 1960s to early 1970s and ended in the mid-1990s.

Carol Harvey (Journalist) asked how she can be certain that the Site 12 PCSR lists all items removed from the site. Mr. Clark responded that every item removed from the ground is documented and included in the PCSR.

Ms. Harvey asked why the arsenic plume is considered hazardous to construction workers and aquatic organisms but not to residents along Gateview Avenue, next to the plume. She suggested that water pipes could crack and causing exposure of the drinking water in the pipes to arsenic in the plume. Mr. Clark responded that drinking water comes from off the island and water pipes are under positive pressure, meaning that drinking water would be pushed out in the event of a crack, rather than water from the plume being pulling in.

## **New Business—BRAC Cleanup Team (BCT) Update**

Kimberly Walsh (DTSC) stated that she is currently filling in for Peyton Ward (DTSC), who will return before the next RAB meeting. Since the previous RAB meeting, Ms. Walsh has worked on providing comments on the draft PFAS SI report. Once review of the SI report is completed, she will begin reviewing the Site 6 PFAS RI report.

Jeff White (Water Board) said that he has also been reviewing the PFAS SI report and expects to provide comments to the Navy the next day, after which he will begin his review of the Site 6 PFAS RI report. He has also been reviewing the Site 12 Westside SWDA Phase IV PCSR.

Mr. White asked if the RAB is familiar with GeoTracker, the Water Board's website for posting documents. Ms. Harvey said that she has not used GeoTracker because she does not know how to use it. Mr. Clark said that Celina Hernandez (Water Board) gave a presentation on using GeoTracker at the February 2021 RAB meeting and suggested that the presentation be sent out to RAB attendees again.

## Old Business—Community Comments

Ms. Harvey stated that Trelease Miller, community member on NSTI, died in November 2021.

Mr. Pepper stated that in 1974, Naval Facilities Engineering Systems Command gave an order for all radium dials to be removed from ships and disposed on their bases. He recommended that the Navy investigate where they were disposed of on NSTI.

Skylar Sacoolas (Greenaction for Health and Environmental Justice) stated that seawalls, which are being used at NSTI to combat sea level rise, can exacerbate inland flooding. She asked whether sea level rise or groundwater rise are of concern to the Navy and if it will be considered in the upcoming FYR. Mr. Clark responded that sea level rise and groundwater rise may be evaluated in the future as part of an RD. Because NSTI is in the bay, groundwater experiences a "mounding" effect, which is higher toward the middle of the island and lower around the perimeter.

## Old Business—RAB Meeting Minutes Approval Meeting No. 212

Ms. Maloof asked for comments on the February 2023 RAB meeting minutes.

Mr. Gee suggested that "Tiburon by Marin County" in the second paragraph on page 4 be changed to "Tiburon in Marin County."

Mr. Gee also stated that the "New Business—BRAC Cleanup Team (BCT) Update" section stand alone and be formatted the same as section titles.

In the second to last paragraph on page 4, Mr. Gee recommended removing "in the" from the sentence, "He hopes to receive Navy comments on the plan in the next week." In the same paragraph, he said "over the next week to a month" should be changed to "within a month or sooner."

Ms. Smith stated that in the third paragraph of page 3, "it's sampling in recent years" should be revised to "it has sampled in recent years."

Ms. Smith added that in the fourth from last paragraph of page 3, "is yet to be determined" should be revised to "has yet to be determined."

Mr. Brennan moved to accept the minutes as amended. Mr. Gee seconded the motion. The February 2023 meeting minutes were approved.

## Action Items from February 2023 RAB Meeting

There were no action items from the February 2023 RAB meeting.

## RAB Discussion Items, Co-Chair Announcements, and Future Agenda Items

Mr. Clark noted that the in-person RAB meeting will be held in NSTI Building 1.

## Adjournment

The meeting adjourned at 8:54 p.m.

## Action Item

Mr. White will email the GeoTracker presentation from February 2021 to the meeting attendees.

## 9 May 2023 RAB Meeting Handouts

- Attachment A: NSTI RAB Meeting No. 213 Agenda
- Attachment B: Environmental Program Overview Presentation



## **Attachment A. NAVSTA TI RAB Meeting No. 213 Agenda**

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## ENVIRONMENTAL RESTORATION ADVISORY BOARD MEETING AGENDA

FORMER NAVAL STATION TREASURE ISLAND

Tuesday, 9 May 2023 at 7:00pm

**Join by computer** Download the Microsoft Teams App to your desktop, phone, or tablet and use Meeting Link:

**[Click here to join the meeting](#)**

**Meeting ID: 235 056 695 110**

**Password: Aq2c5u**

**Or Click or Type in: <https://tinyurl.com/TI-RAB-MAY-2023>**

**Join by telephone** Toll Free: 1-833-258-6146, Enter the meeting ID: 869 981 622#

### MEETING NO. 213

#### I. WELCOME REMARKS AND AGENDA REVIEW

**7:00 – 7:05 Welcome, Introductions**

Marsha Maloof, Meeting Facilitator

**7:05 – 7:10 Meeting Guidelines and Agenda Review**

Marsha Maloof, Meeting Facilitator

Alice Pilram, Community Co-Chair

#### II. NEW BUSINESS

**7:10 – 8:00 Environmental Program Overview**

David Clark, Lead Remedial Project Manager

Q&A: RAB

Q&A: Community

**8:00 – 8:15 Break**

**8:15 – 8:25 BRAC Cleanup Team Update**

Kimberly Walsh, Department of Toxic Substances Control

Jeff White, Regional Water Board

#### III. OLD BUSINESS

**8:25 – 8:40 Community Comments**

Marsha Maloof, Meeting Facilitator

Q&A: RAB

Q&A: Community

**8:40 – 8:45 RAB Meeting Minutes Approval Meeting No. 212**

David Clark, Lead Remedial Project Manager

**8:45 – 8:50 Action Items from February 2023 RAB Meeting**

David Clark, Lead Remedial Project Manager

**8:50 – 8:55 Co-Chair Announcements and Future Agenda Items**

Alice Pilram, Community Co-Chair and David Clark, Lead Remedial Project Manager

**9:00 Adjourn**

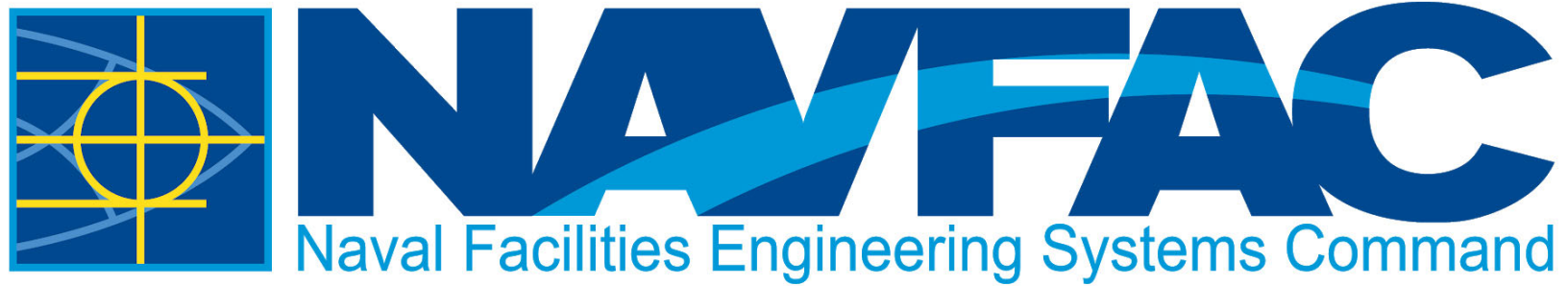
***The Next RAB Meeting will be held in-person at Building 1 on 8 August 2023 at 7:00pm***

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## **Attachment B. Environmental Program Overview Presentation**

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# Environmental Program Overview

**Treasure Island Restoration Advisory Board Meeting**

9 May 2023

# Presentation Overview

- **Site 12 Update**
- **PFAS Path Forward**
- **ESD – LUC RD Update**
- **Five Year Review**
- **YF3**





## Major Progress To Date at Site 12

- **Non-radiological remedy implemented on majority of Site 12**
  - Documented in 2017 Record of Decision
  - Did not address some landfill (SWDA) areas
  - Excavation of non-radiological chemicals of concern
  - Addressing groundwater at Gateview Avenue shoreline
- **Completion of Westside Solid Waste Disposal Area (SWDA) Phase IV Non-Time Critical Removal Action (NTCRA)**
- **Conceptual Site Model (CSM) Update**
- **1400 Series Radiological No Further Action (NFA)**

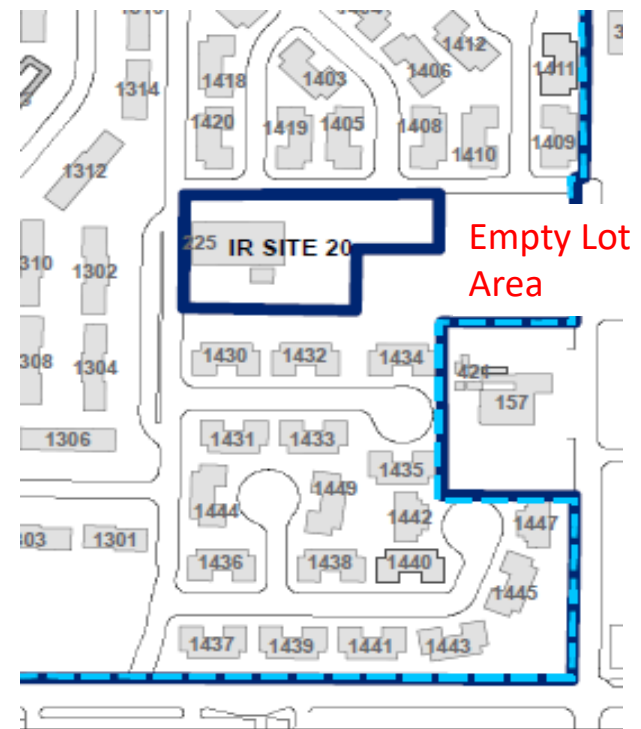
## Site 12 Next Step – Feasibility Study Addendum #2

- Identify a Site 12 Remedy (potential combination of multiple tasks) that conforms to overall goals of the environmental program including:
  - Protection of human health and the environment
  - Taking into account the reasonably anticipated future reuse
- Major future goal:
  - Memorialize remedy in record of decision



## Additional Work Ongoing in Support of FS Addendum #2

- **Post-Construction Summary Report (PCSR) for Westside SWDA Phase IV NTCRA**
- **Explanation of Significant Differences (ESD)**
  - Site 12: Establish arsenic groundwater remedial goal at Gateview Ave petroleum area.
- **Additional excavation in Site 12, (empty lot area)**
  - Extend previous excavation to remove residual PAH/TPH-contaminated soil



## Site 12 Development Areas

- **12 Development Area:**
  - Planned residential within this footprint
  - No further for radiological in part of the area
  - Limited non-radiological issues remaining
- **Remedy in place for groundwater (Gateview Ave TPH) will remain.**
- **Limited remaining non radiological issues to be addressed**



## Site 12 Open Space Areas

- **12 Open Spaces**
  - **Include Identified Landfill Areas**
    - Presumptive remedy would include an engineer cover
  - **Perimeter seawall to be upgraded**



# PFAS Path Forward



# Planned PFAS Activities

- **Establish Background Area for Nearshore Sampling**
  - Sediment – Porewater – Surface Water
- **IR Site 6 PFAS RI Addendum**
  - Risk Assessment Development (Site 6)
- **IR Site 6 PFAS Reactive Barrier Pilot Test**
- **Continue Basewide PFAS Evaluation**

# Preliminary PFAS CERCLA Document Status

- **Reporting for the IR Site 6 PFAS RI is currently underway**
  - Draft Document out April 2023
- **Evaluating how data will be integrated into the new planning documents for the Site 6 PFAS RI Addendum**
- **Reporting for the Basewide PFAS SI in process**
  - Draft Document out April 2023
- **Evaluating path forward for further Basewide PFAS evaluation**



# **Explanation of Significant Differences (ESD) Land Use Controls Remedial Design (LUC RD) Document Summary**

## Site 24

- **ESD**

- **ROD/Final RAP (2015) identified chlorinated solvents in groundwater for construction workers working in a trench based on direct contact and inhalation**
- **Second Five Year Review (2020) identified soil gas Remedial Goals (RG)s needed evaluation based on revised regulations**
- **Revised chlorinated solvent soil gas RGs for residential and commercial/industrial workers**
- **No new Applicable or Relevant and Appropriate Requirement (ARARs) identified**

- **LUC RD**

- **Review recent soil gas monitoring data – determine if plume extent is bounded**
- **Revise area requiring institutional controls if needed (ARIC)**

## Site 6

- **ESD**

- **ROD/Final RAP identified arsenic in groundwater for the future construction worker exposure pathway**
- **Proposed RG revisions from 250 ug/l to 35 ug/l**
- **No new ARARs identified**

- **LUC RD**

- **Review recent groundwater monitoring data – determine if plume extent is bounded**
- **If not, expand monitoring well network to delineate new RG**
- **Revise area requiring institutional controls (ARIC)**

## Site 12

- **ESD**

- ROD/Final RAP identified arsenic in groundwater as contaminant of ecological concern for off-site aquatic receptors
- Proposed RG establishment of 35 ug/l
- No new ARARs identified

- **LUC RD**

- Establish an ARIC
- Implement contaminated groundwater management plan to be followed during construction activities
- Evaluate land use controls as needed

## Document Delivery Timeline

Document	Delivery Date
Final Site 24 ESD	April 2023
Draft Site 6 ESD	March 2023
Draft Site 12 ESD	April 2023
Draft Site 24 LUC RD	July 2023
Draft Site 12 LUC RD	October 2023
Draft 6 LUC RD	November 2023

# Treasure Island Five-Year Review

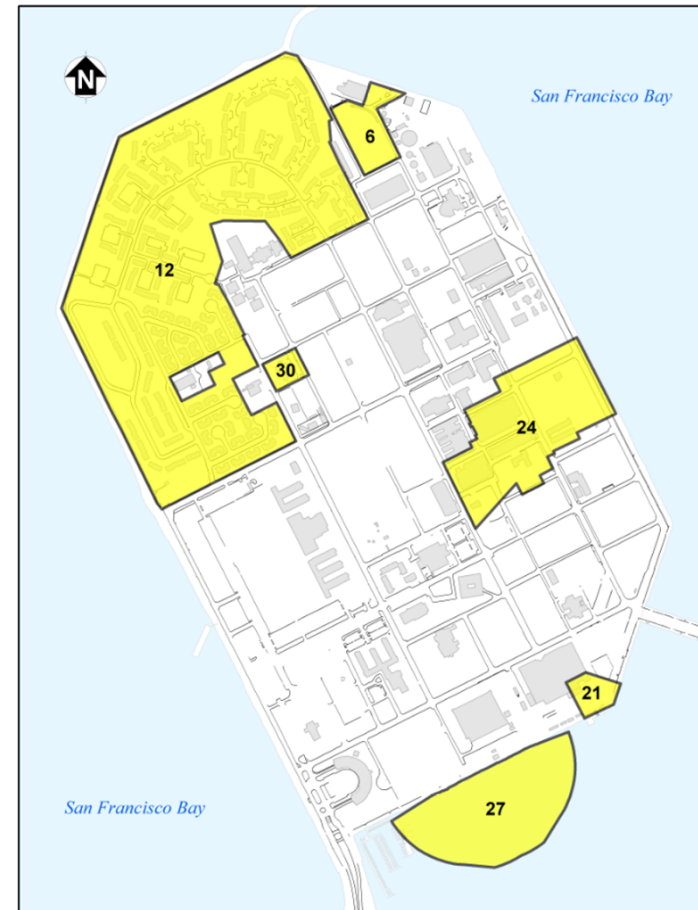
## Focus of the Five Year Review

- To evaluate the implementation and performance of the remedy for subject sites to whether the remedy is, or will be protective of human health and the environment



## Five Year Review Sites (2<sup>nd</sup> & 3<sup>rd</sup> FYR)

- **Six sites will be evaluated for the 3<sup>rd</sup> FYR: IR Sites 6, 12\*, 21, 24, 27, and 30**
  - **\*For Site 12, the evaluation will include the remedy for groundwater within the Gateview Arsenic/TPH area, as well as the implemented soil remedy.**





## Five Year Review Process

Step	Purpose
Document Review	<ul style="list-style-type: none"><li>• Review of records of decision, remedial action designs, work plans, completion and monitoring reports, and annual site inspection reports</li><li>• Confirm remedial action is working as designed and/or how the remedial action is currently functioning</li></ul>
Site Inspection	<ul style="list-style-type: none"><li>• Document current site conditions to evaluate visual evidence of the protectiveness of the remedies at each site</li></ul>
Site Interviews	<ul style="list-style-type: none"><li>• Complete interviews of cross-section stakeholders to identify any problems or concerns with the remedies that remain to be addressed</li><li>• Stakeholders include: DTSC, Waterboard, TIDA, residents, and local community members</li></ul>
Protectiveness Statement	<ul style="list-style-type: none"><li>• Establishing if the remedy for each site is protective of human health and the environment</li></ul>

## 2<sup>nd</sup> FYR Protectiveness Determinations

Protective	Protective in the Short-term	Will be Protective	Protectiveness Deferred	Not Protective
Site 21	Site 24		Site 6	
Site 27			Site 12*	
Site 30				

\*Cleanup for 2nd FYR only included GW within Gateview Avenue Arsenic/TPH Area. 3rd FYR will include soil remedy.

## 2<sup>nd</sup> FYR Issues & Recommendations

- Issues identified during the Five-Year Review were assigned a follow up action and milestones for completion by the responsible party

Site	Name	Milestone
6	Investigate PFAS	2021
	Revise Arsenic Groundwater Remedial Goal	2023
	Evaluate Redevelopment Plans in Next 5YR	2025
12	Re-evaluate Construction Worker Groundwater Risk	2021
21	Collect Soil Gas Data	2023
24	Ensure Accessible Wells	2021
	Delineate Soil Gas Plume	2021
	Revise Soil Gas Remedial Goals	2023
27	Implement Signage per Site Management Plan	2021
	Speed Limit Enforcement Provisions	2022
30	NONE	--

## ***FYR Addendum – February 2022***

- **Site 6 – Protectiveness Determination: Protectiveness Deferred**
  - A protectiveness determination of the remedy for IR Site 6 cannot be made at this time until further information is obtained. Further information will be obtained by completing a remedial investigation, feasibility study, and record of decision for PFAS.
- **Site 12 – Protectiveness Determination: Protective in the Short Term**
  - Non-cancer hazards to the construction worker from dermal exposure to groundwater are greater than 1 because of the arsenic concentrations in two wells.
  - Therefore, establish RG for arsenic via an ESD, along with developing a LUC-RD.

## 3<sup>rd</sup> FYR Schedule

- **End of 2023 – Contract in Place**
- **2024 – Develop Internal Draft\***
- **Early 2025 – Draft Completed**
- **May 2025 – Concurrence on RTCs and RLSO**

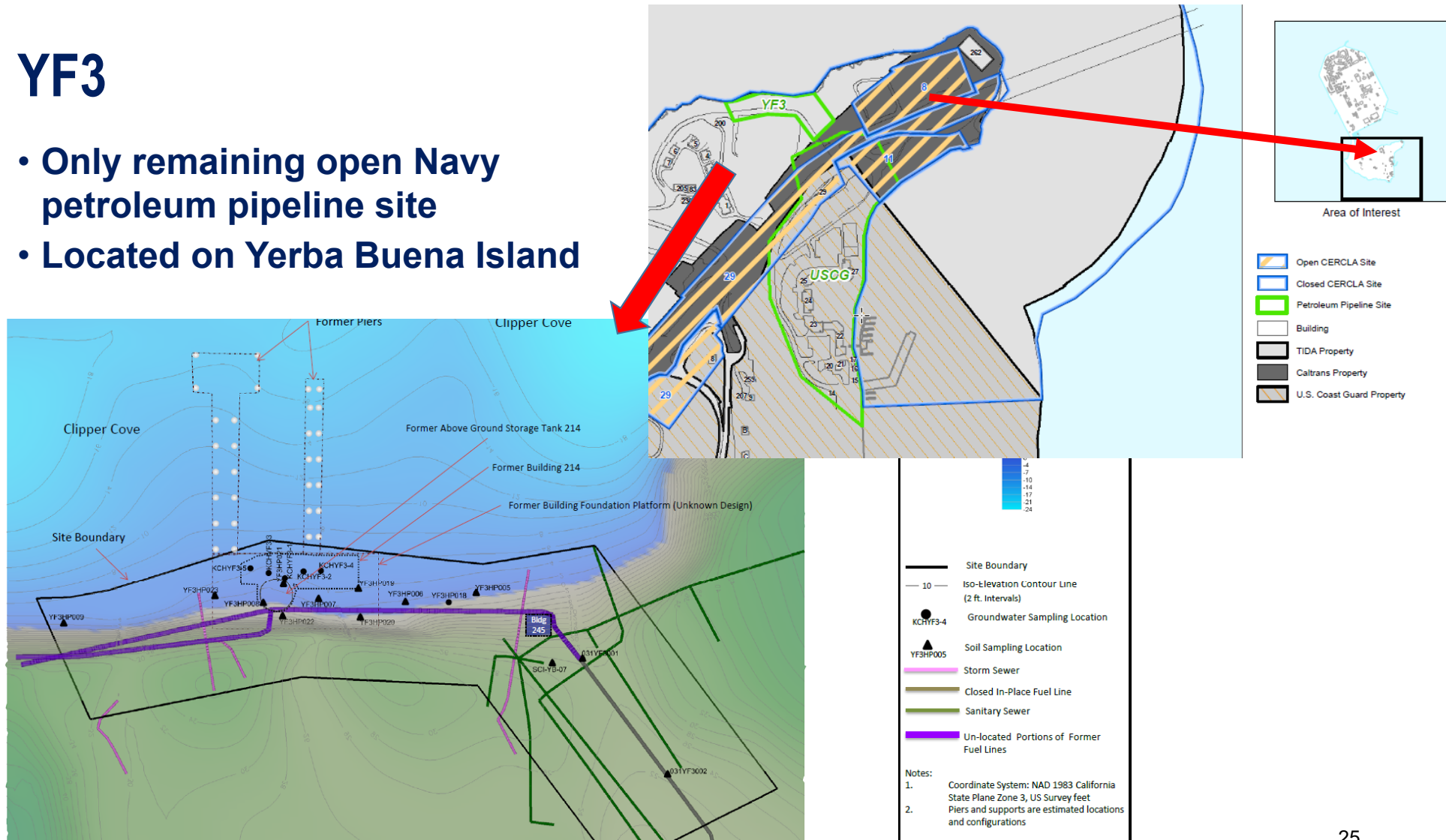
\*Any new rules or regulations should be provided by early 2024

**YF3**



# YF3

- Only remaining open Navy petroleum pipeline site
- Located on Yerba Buena Island



## Additional Data Collection

- Land surveying and a geophysical study to determine the physical boundaries, including bathymetric and topographical delineation, and to further characterize the depth to bedrock using surveys and geophysics of the proposed remedial area.
- Soil boring and porewater assessments to further define the horizontal and vertical extent of residual petroleum contamination Data will be collected and analyzed to supplement the existing site information and delineate the extent of contamination.





## YF3 Path Forward

- **2023 – Datagaps Work Plan**
- **2023 to 2024 – Fieldwork**
- **2024 – Evaluate Alternatives**
- **2025 – Corrective Action Workplan**
- **2026 – Implementation**

# Questions?

