



**NAVFAC**  
Naval Facilities Engineering Systems Command

# Environmental Restoration Program Update

Treasure Island Restoration Advisory Board Meeting

7 May 2024

# Tonight's Presentation Topics

- **YF3 – Shoreline Petroleum Evaluation**
- **PFAS (Per and Polyfluoroalkyl Substances) - Program Update**
- **Site 12 Status Update**
- **Revised Remedial Goals**
- **3rd, Five Year Review Details**

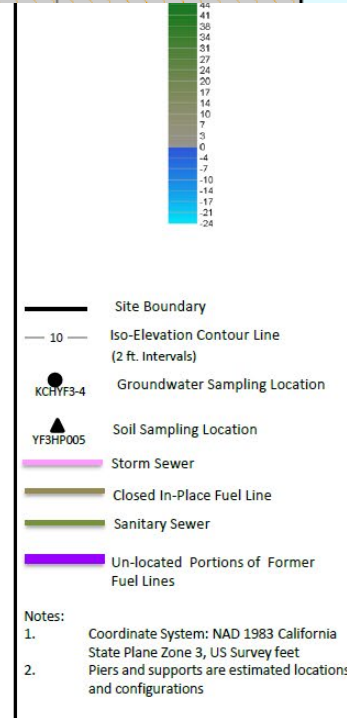
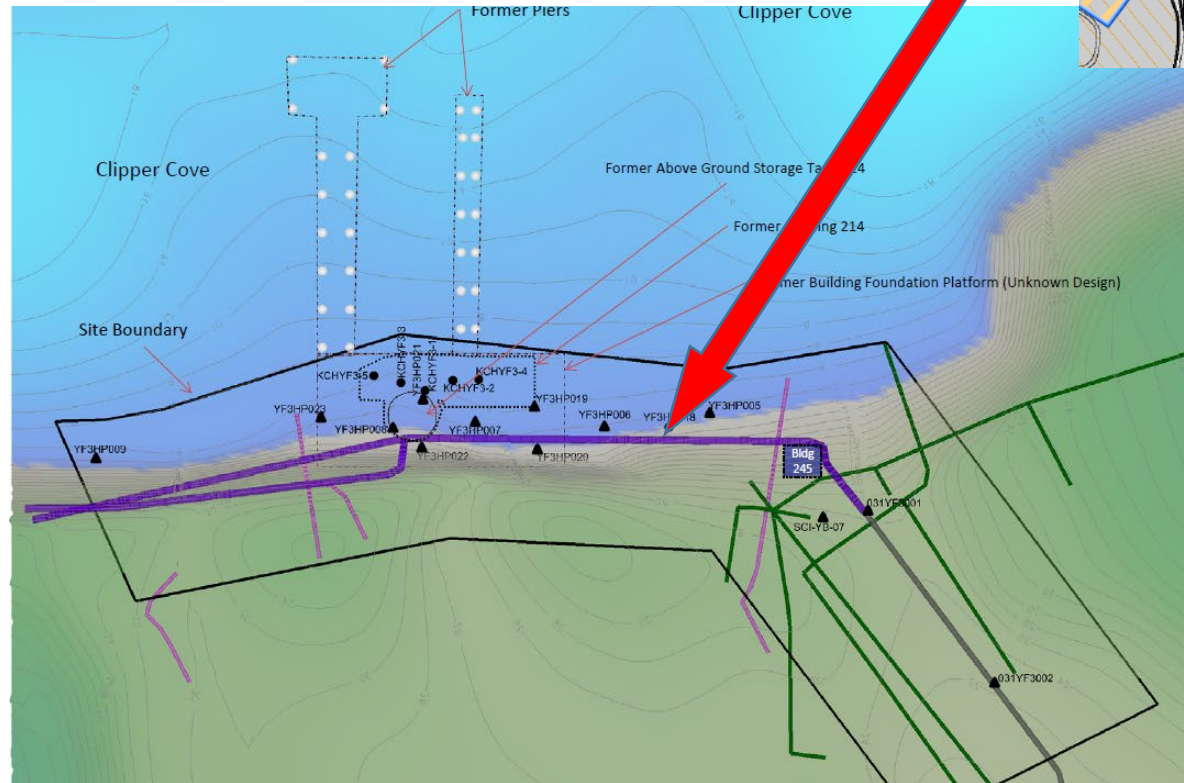
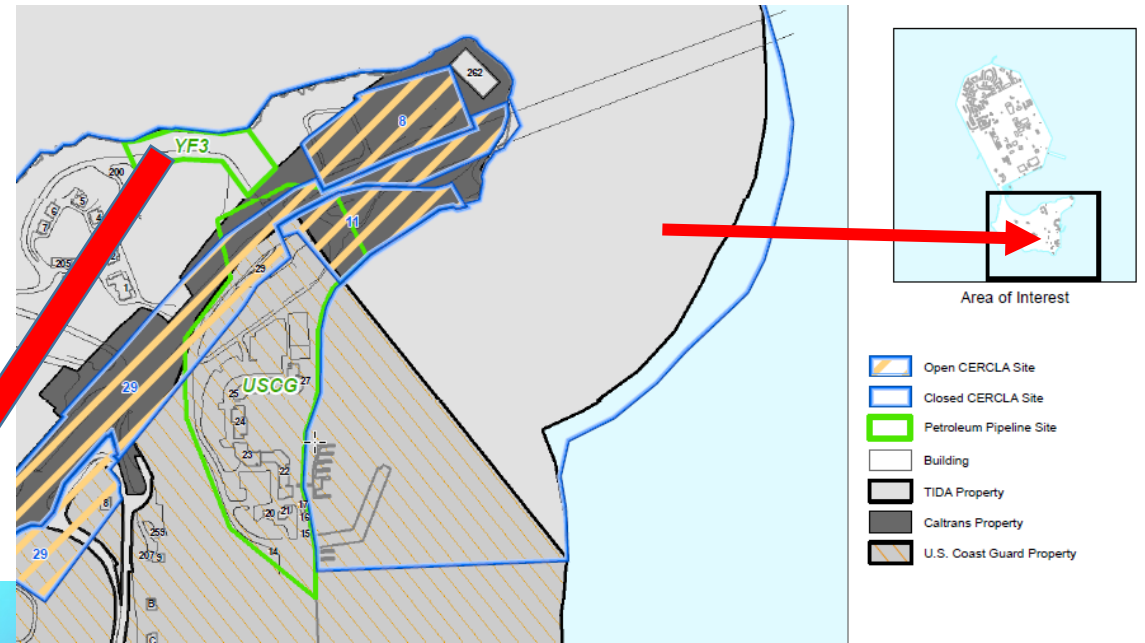


# YF3 – Shoreline Evaluation



# Site YF3 – Upcoming Work

- Data Gaps Work Plan issued draft early May
- Additional chemical and geotechnical sampling
- Results will support remedial action selection
- Fieldwork = Fourth quarter 2024



# PFAS Program Update



# PFAS (Per and Polyfluoroalkyl Substances)

## PFAS Program Accomplishments:

- **Finalized Preliminary Assessment (PA) for Site 6**
  - Accelerated to Remedial Investigation (RI)
- **Finalized the Basewide PA and Site Investigation (SI)**
- **Initiated onshore Remedial Investigation Study for Site 6**
- **Evaluating Strategy for Basewide Remedial Investigation**
- **Drafting Workplan for Ambient Sampling**
- **Began Workplan for Pilot Study**

# Ongoing PFAS Evaluations

- **Supplement Ambient Data Set for San Francisco Bay**
  - Sediment – Porewater – Surface Water
- **IR Site 6 PFAS Reactive Barrier Pilot Test**
- **Monitoring Regulation Developments – EPA rule-10 April 2024**
- **Shoreline Evaluation**
  - Intertidal Mixing Zone
  - Infrastructure



Injection in process



Moving the DPT rig to a different injection location

# Site 12 – Housing Area





# Site 12 at a Glance

- Site consists of several major components
  - Historical Landfill Areas
    - Solid Waste Disposal Areas and Central Rubbish Area
  - Areas outside of landfill areas
  - 1400 Series Housing Area



# Site 12 Accomplishments

- **Feasibility Study (FS) and FS Addendum #1 (2014 & 2015)**
  - Addressed non radiological issues across majority of the site.
  - Supported 2017 Record of Decision
- **Site 12 Conceptual Site Model (CSM) Update (2023)**
  - Refined understanding of legacy disposal activities during WWII-1950s.
  - Refined understanding of soil movement during housing construction.
  - Updated CSM improves ability to evaluate alternatives across a large area.
- **1400 Series Housing Radiological No Further Action (2023)**
  - Eliminates need to conduct radiological remedial action within the 1400 series (newest built in 1989) housing.

# Site 12 Next Steps – FS Addendum #2

- **Feasibility Study (FS) Addendum (#2) will present an evaluation of *additional* potential remedies for Site 12**
  - The FS will address alternatives for:
    - Remaining chemical contamination within the Solid Waste Disposal Areas (SWDA's), Central Rubbish Area (CRA).
    - Radiological impacted areas across IR Site 12 outside of 1400 series.
    - Remaining chemical contamination issues outside the landfill areas.
- **Evaluating Applicable or Relevant and Appropriate Requirements (ARARs)**
  - Contaminant specific
  - Action Specific
  - Location Specific
- **Challenges include**
  - Unique aspect of discrete rad objects.
  - PFAS

# Feasibility Study Criteria

- **Threshold Criteria**
  - **Overall Protection of Human Health and the Environment**
  - **Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)**
- **Balancing Criteria**
  - **Long-term Effectiveness and Permanence**
  - **Reduction in Toxicity, Mobility, or Volume Through Treatment**
  - **Short-term Effectiveness**
  - **Implementability (technical and administrative)**
  - **Cost**
- **Modifying Criteria**
  - **State Acceptance**
  - **Community Acceptance**

# Site 12 Westside Drive SWDA



- **Seeding Success**

# Revised Remedial Goals From 2nd, Five Year Review Recommendations

# New Remedial Goal for Arsenic (2nd Five Year Review Recommendation)

## Accomplishments

- An Explanation of Significant Differences (ESD) for IR Site 6 established a new remedial goal (RG) for potential construction worker exposure.
  - RG revised from 250 ug/l to 35 ug/l
- Performed tidal study at IR Site 12 to evaluate if there is an optimal sampling time in tidal cycle. Currently evaluating the data.

## Ongoing Evaluations

- Evaluating path forward for Site 12 ESD
  - Nature and extent
  - Current sampling plan
  - Relationship of groundwater and the bay
- Drafting Land Use Control Remedial Design (LUC-RD) for Site 6

# **New Remedial Goal for Soil Gas – Site 24**

## **(2nd Five Year Review Recommendation)**

### **Accomplishments**

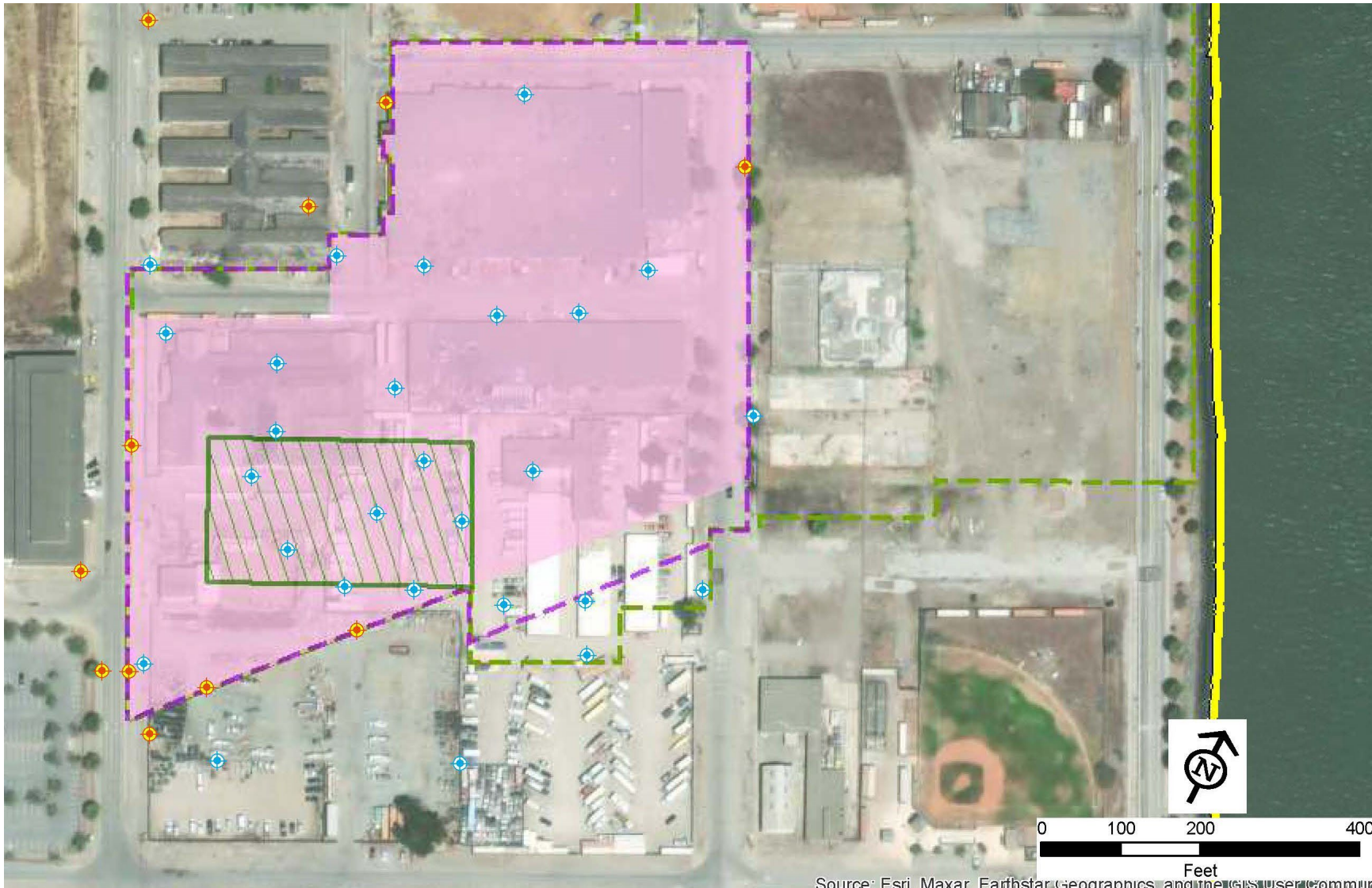
- **Revised chlorinated solvent RGs for soil gas at Site 24**
  - **Explanation of Significant Differences**
- **Installed new soil gas probes along the Area Requiring Institutional Controls (ARIC) at IR Site 24.**
  - **Sampling these soil gas probes quarterly**

### **Ongoing Evaluations**

- **Water inside some probes at Site 24 because of heavy rains prevented collection soil gas samples.**
  - **Will attempt collection again in June 2024.**
- **Evaluating solutions to moisture in soil gas probes.**
- **Evaluating southern edge of Site 24 relative to the area requiring an institutional controls.**



# Site 24 ARICs and Soil Gas Probe Locations



Source: Esri, Maxar, Earthstar, GeoGraphics, and the GIS User Community

# 3rd, Five Year Review

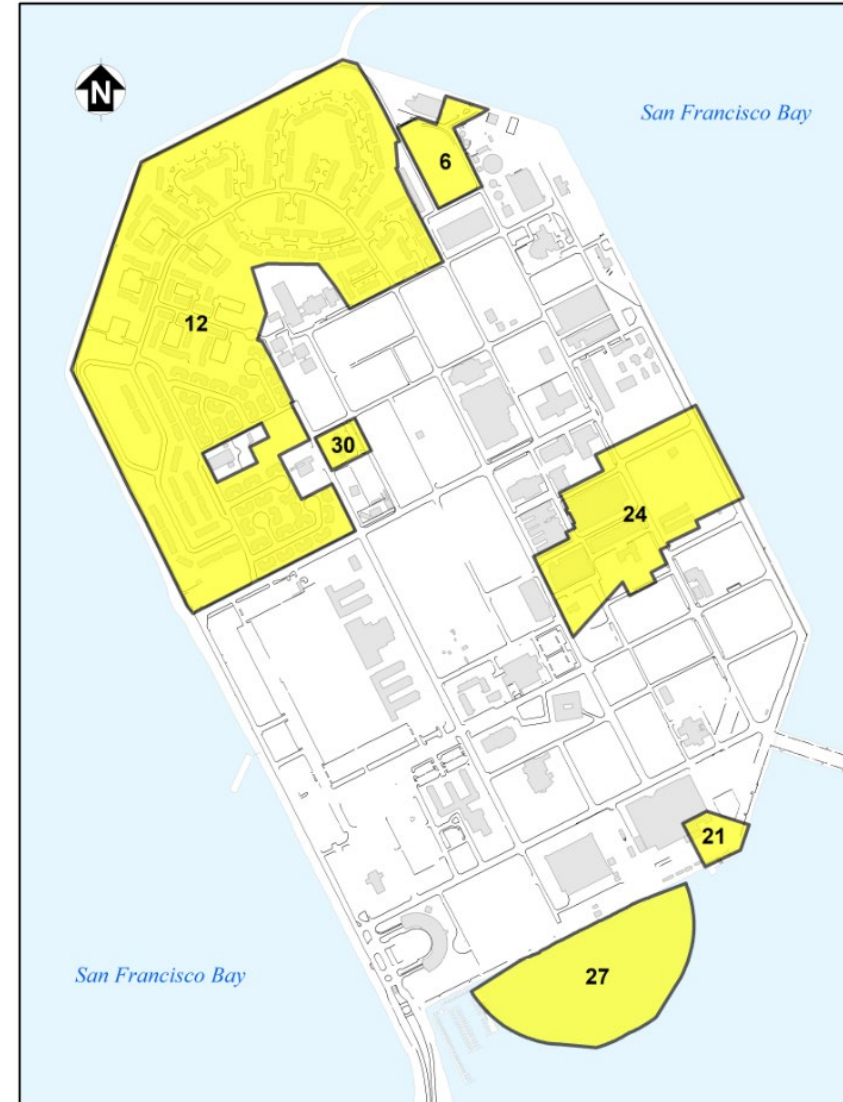
# Focus of the 3rd Five Year Review

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



# Five Year Review Sites

- Remedies in place for six sites will be evaluated for the 3<sup>rd</sup> FYR:  
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 (continued)

## Accomplishments

- Site inspections performed April 2024

## Ongoing Evaluations

- PFAS (as potential COC)
- Climate change
  - Assess effects of Sea level and groundwater level rise on remedies in place

# Report Schedule

- **End of 2023 – Contract in Place**
- **2024 – Develop Internal Draft**
- **Early 2025 – Draft Completed**
- **May 2025 – Concurrence on Response to Comments**
- **Final in Administrative Record by August 2025**

Questions?

