Community Discussion Series: United Heckathorn Superfund Site Update

January 28, 2026 6:30 to 8:00 pm PT

Reminders

- Join audio if you have not already.
- Live Spanish language translation is available.
- You are automatically muted.
- You will be able to ask questions verbally and in writing.
- Slides will be shared after the meeting.

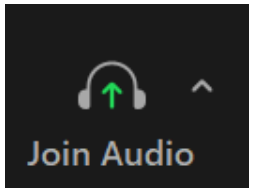
Welcome! The live event will start shortly

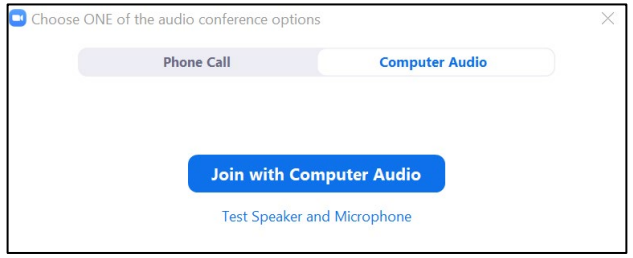
¡Bienvenido! El evento en vivo comenzará en breve.

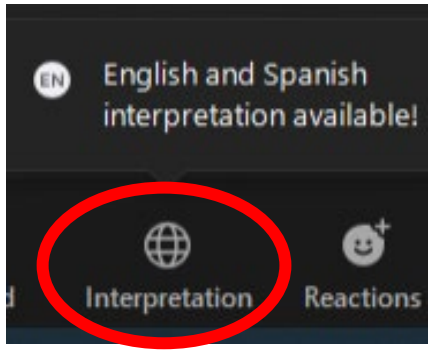
Audio and Interpretation Instructions

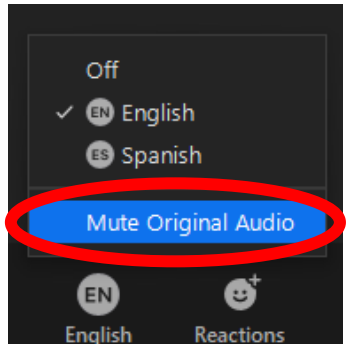
Please use controls to connect to audio as desired.

Utilice los controles para conectarse al audio como desee.









You MUST select your preferred language under “Interpretation.”

Spanish listeners, it is recommended to “Mute Original Audio.”

Debe seleccionar su idioma preferido en "Interpretación". Se recomienda "Silenciar audio original".

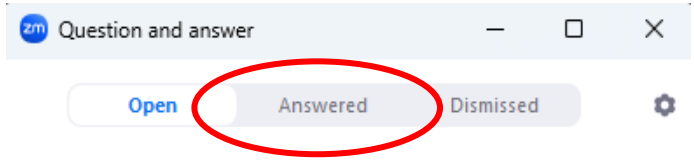
Participation Instructions

Audio is available online with your device or by telephone.

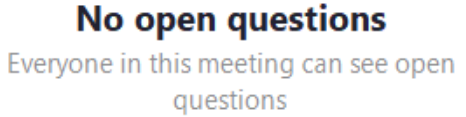
Optional dial in **669-254-5252** Meeting ID **160 843 0724**

Closed captioning/Live transcription is available.

Questions or technical problems?

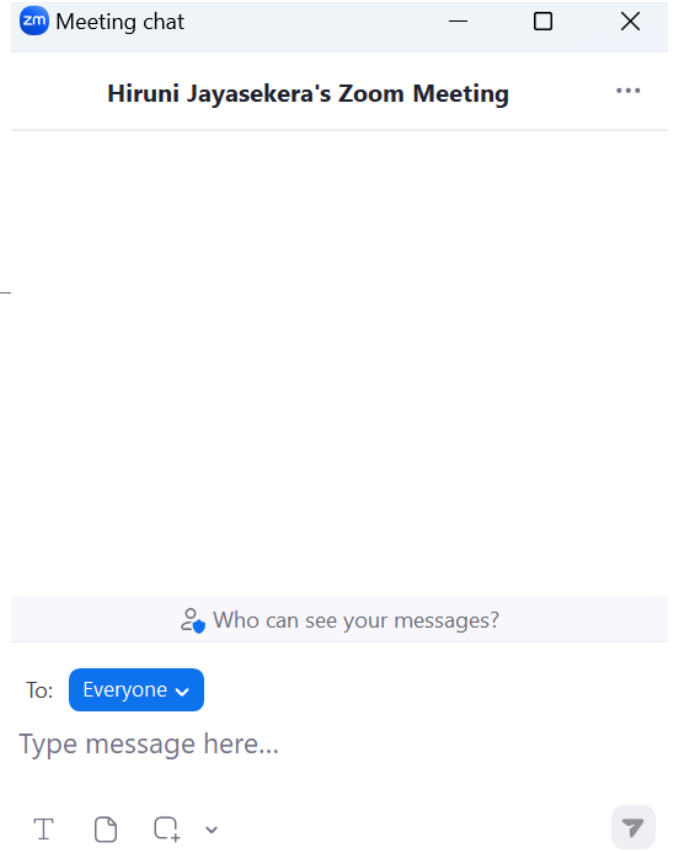


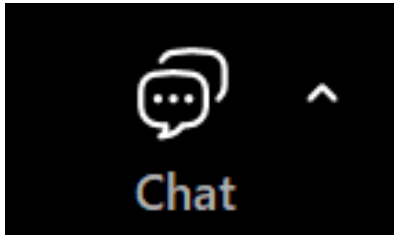
- Participants may enter questions in the Q&A box at any time.
- See answered questions in "Answered" tab.
- Questions in the *chat* may not be answered. Please put questions in the Q&A box.
- We will have a longer Q&A session where we will take raised hands after the presentation.



Chat function

- Questions in the *chat* may not be answered. Please put questions in the Q&A box.
- The chat function is available during the meeting for community discussion and resource sharing.





Meet EPA

- Karen Jurist: Project Manager
- Grace Beery: Project Manager
- Hiruni Jayasekera: Community Involvement Coordinator
- Omer Shalev: Superfund Section Supervisor
- David Yogi: Superfund Community Involvement Supervisor

In the chat:

Please introduce yourself!

Community facilitation support:
Carolyn Cheng, Sierra Club

COMMUNITY DISCUSSION SERIES #6: UNITED HECKATHORN SUPERFUND SITE

JANUARY 28, 2026

Long-Term Effectiveness of Cleanup Plans

Agenda

- United Heckathorn Site Overview
- Aspects of a Resilient Cleanup Plan
- Projected Environmental Hazards
- Next Steps
- Q&A

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N
Lauritzen Channel
United Heckathorn Site
San Francisco Bay
Richmond
United Heckathorn Co.
Superfund Site
Oakland
San Francisco
Santa Fe Channel
Richmond Inner Harbor
Channel

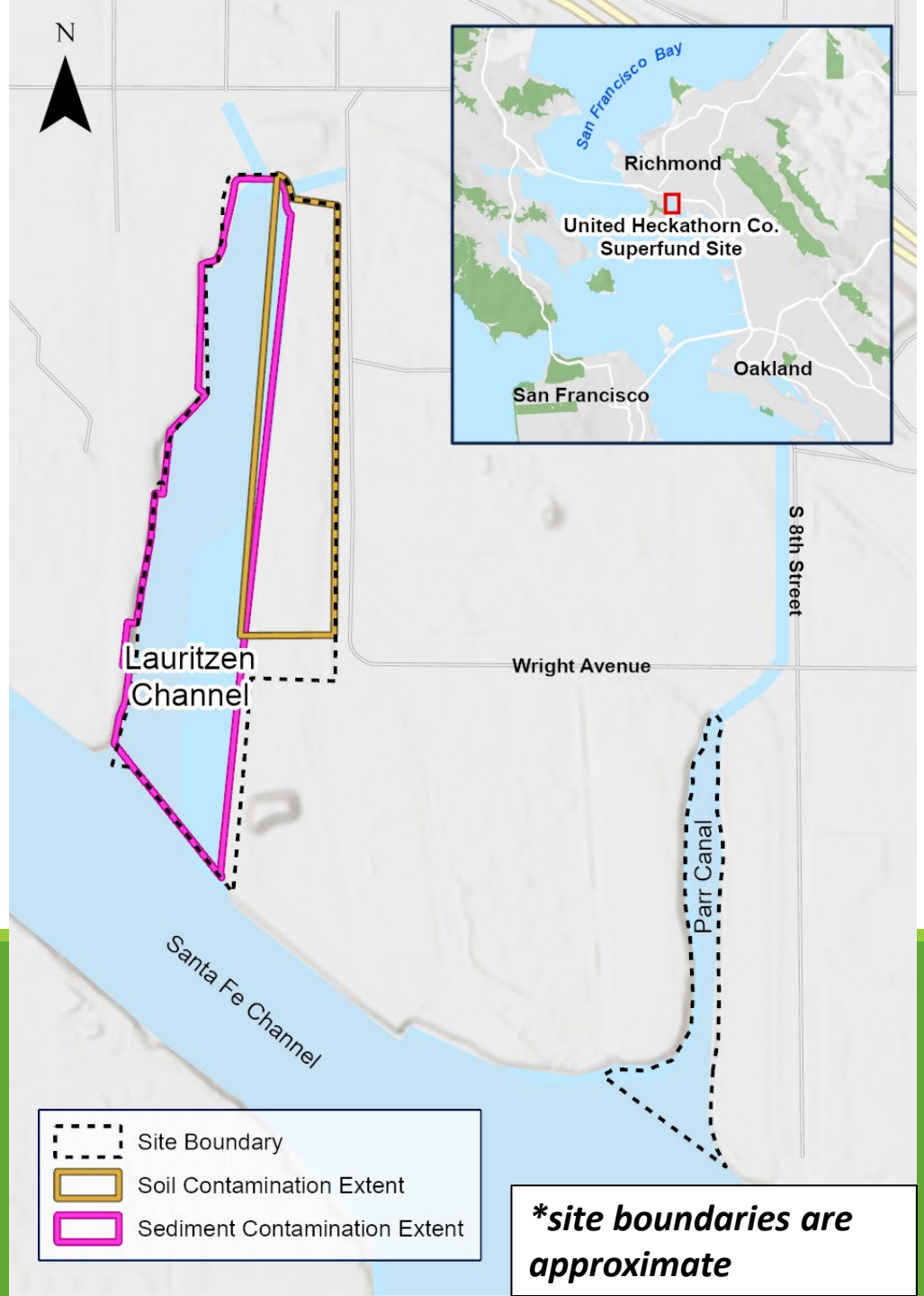
United Heckathorn site present day use

Photo: SF Baykeeper

- Historically a pesticide processing facility from 1940s-1960s
- Contaminants of concern are **DDT and dieldrin**
- Currently operates as dry bulk cargo shipping terminal

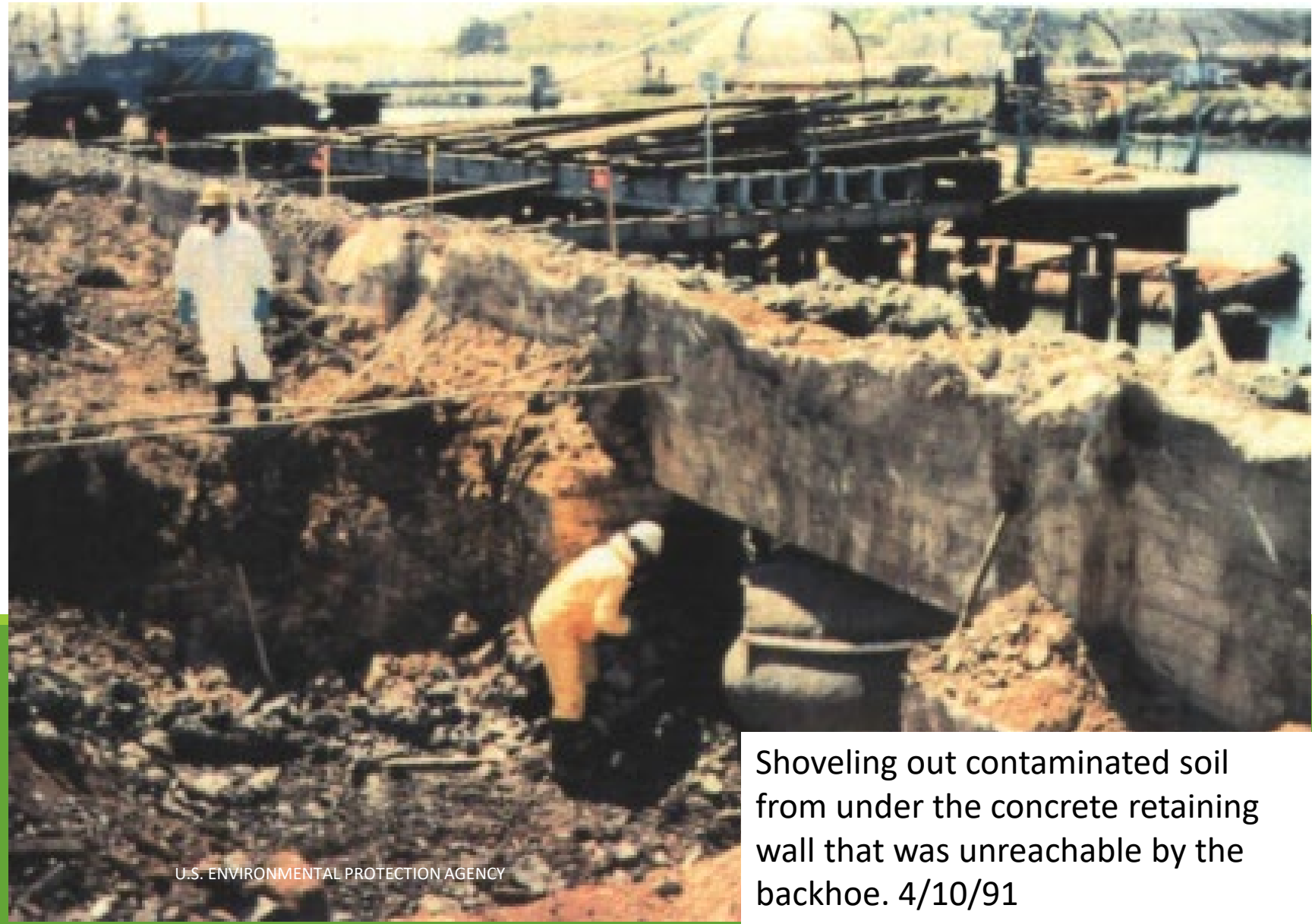
- **Upland area:** contaminated soils on land

- **Marine area:** contaminated marine sediments



1990-1993 Upland Soil Cleanup

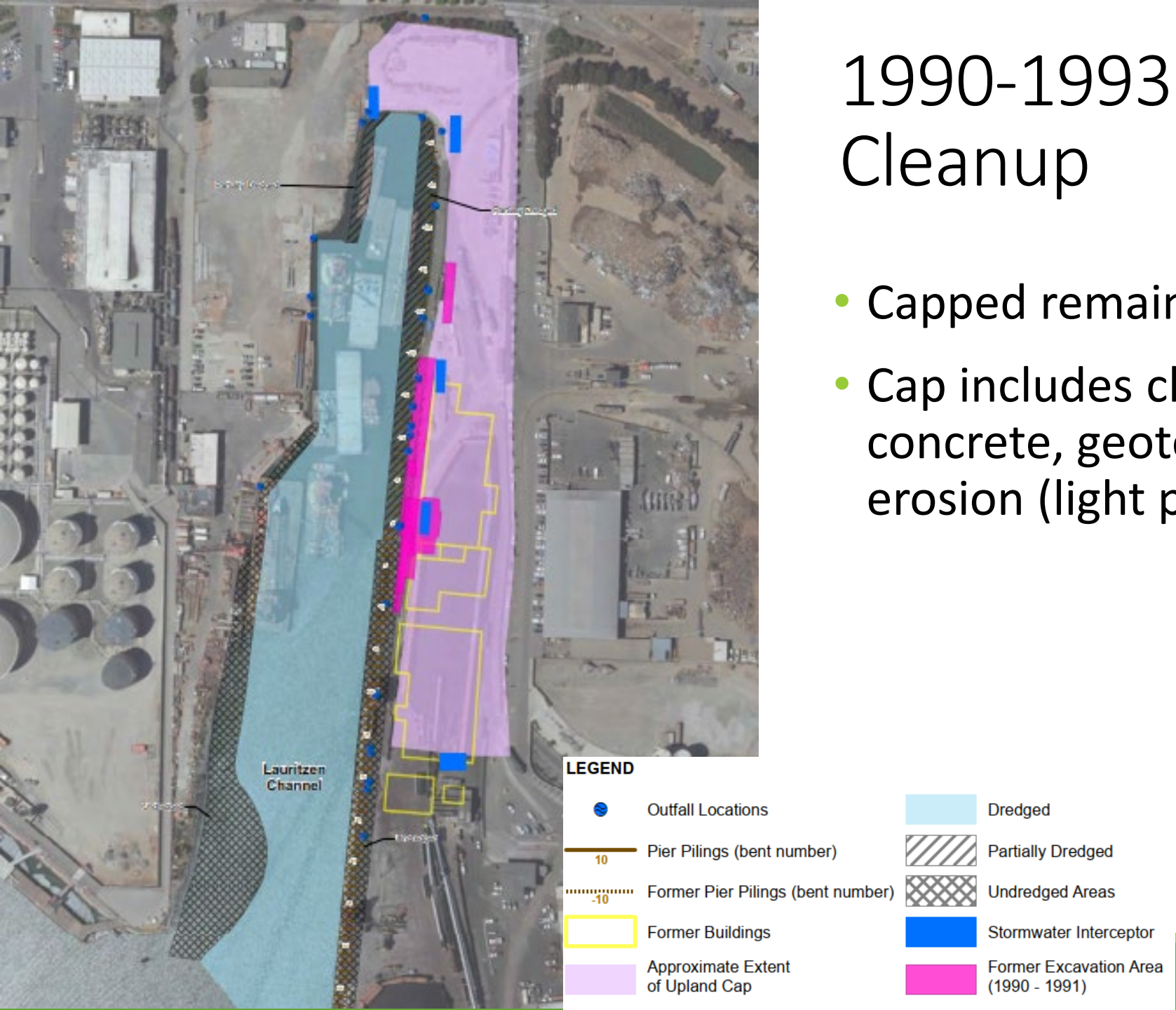
- 1990: 1500 yd^3 of soil and visible pesticide residue excavated and removed
- 1991: An additional 1800 yd^3 of contaminated soil removed
- Total of 3300 yd^3 of contaminated soils removed
- 1993: Excavated soil stockpiles removed



Shoveling out contaminated soil from under the concrete retaining wall that was unreachable by the backhoe. 4/10/91

1990-1993 Upland Soil Cleanup

- Capped remaining soil in upland area.
- Cap includes clean materials like gravel, concrete, geotextiles to prevent soil erosion (light pink).



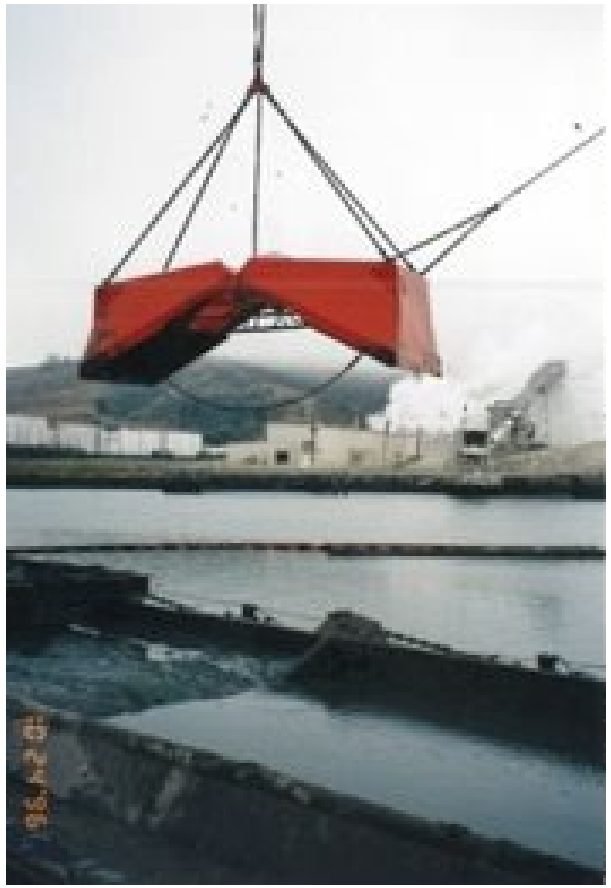
1996-1997 Marine Sediments Cleanup

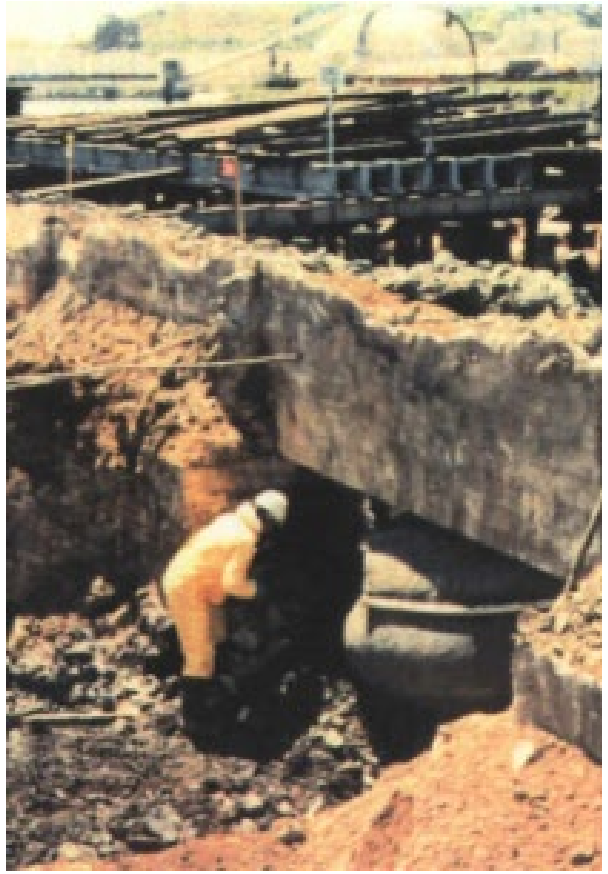
Marine sediments from Lauritzen Channel and Parr Canal were dredged and transported offsite for disposal.

Cleanup in the Lauritzen Channel removed substantial contamination. However, **DDT and dieldrin levels are above cleanup goals**.

Lauritzen Channel cleanup needed to be re-investigated.

Site History Overview





1. The site was contaminated with DDT and dieldrin mid-century.

2. Site is divided into two parts, each with their own cleanup plan/approach.

- Upland area

- Marine area

3. Marine cleanup in Lauritzen Channel is no longer effective

4. EPA is working on re-doing the cleanup.

United Heckathorn Site Overview

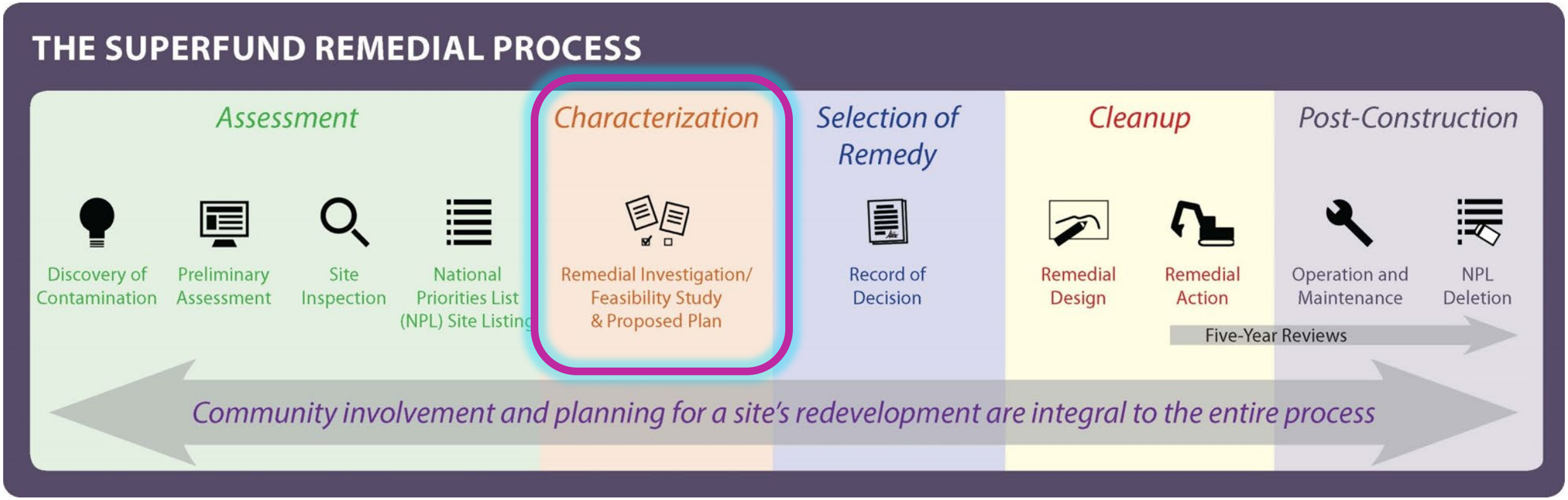
Aspects of a Resilient Cleanup Plan

Projected Environmental Hazards

Next Steps

Q&A

Where is the Marine Area of the site in the Superfund process?



The United Heckathorn OU2 Proposed Plan will be released in 2026

The process we use to select cleanup plan

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

2 Compliance with Federal and State Applicable or Relevant and Appropriate Requirements
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, and Volume through Treatment
Ability of 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

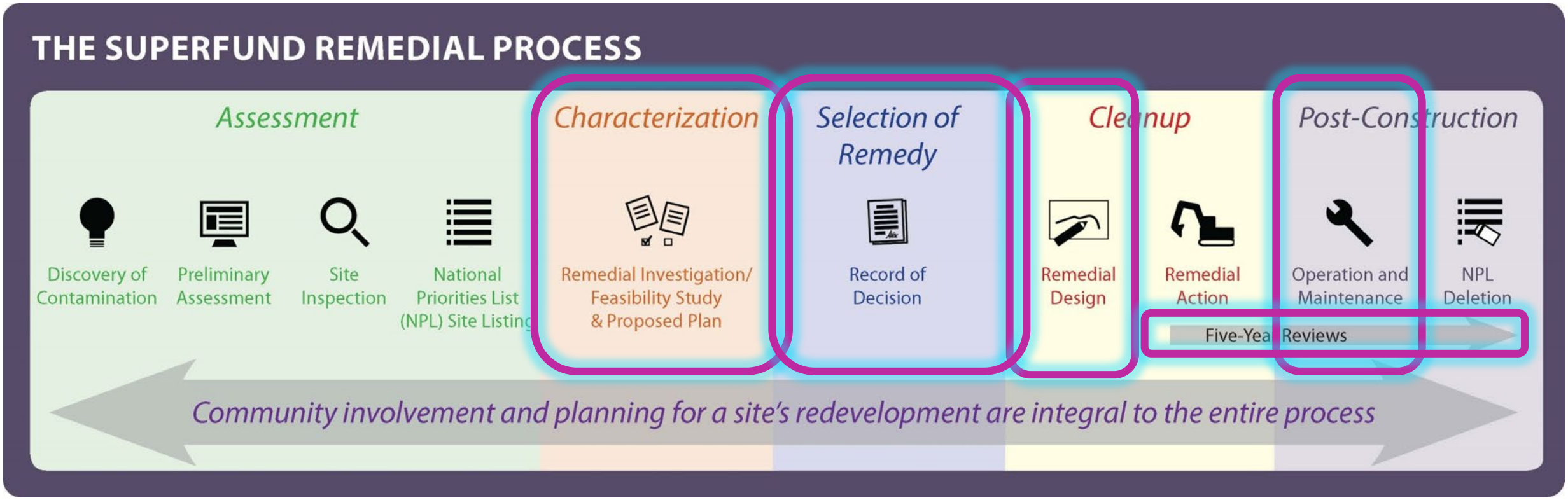
6 Implementability
Technical and administrative feasibility of a remedy, including the availability of materials and services needed to carry it out

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

When Does EPA Focus on Long-term Effectiveness?



What makes Superfund cleanups effective in the long term?

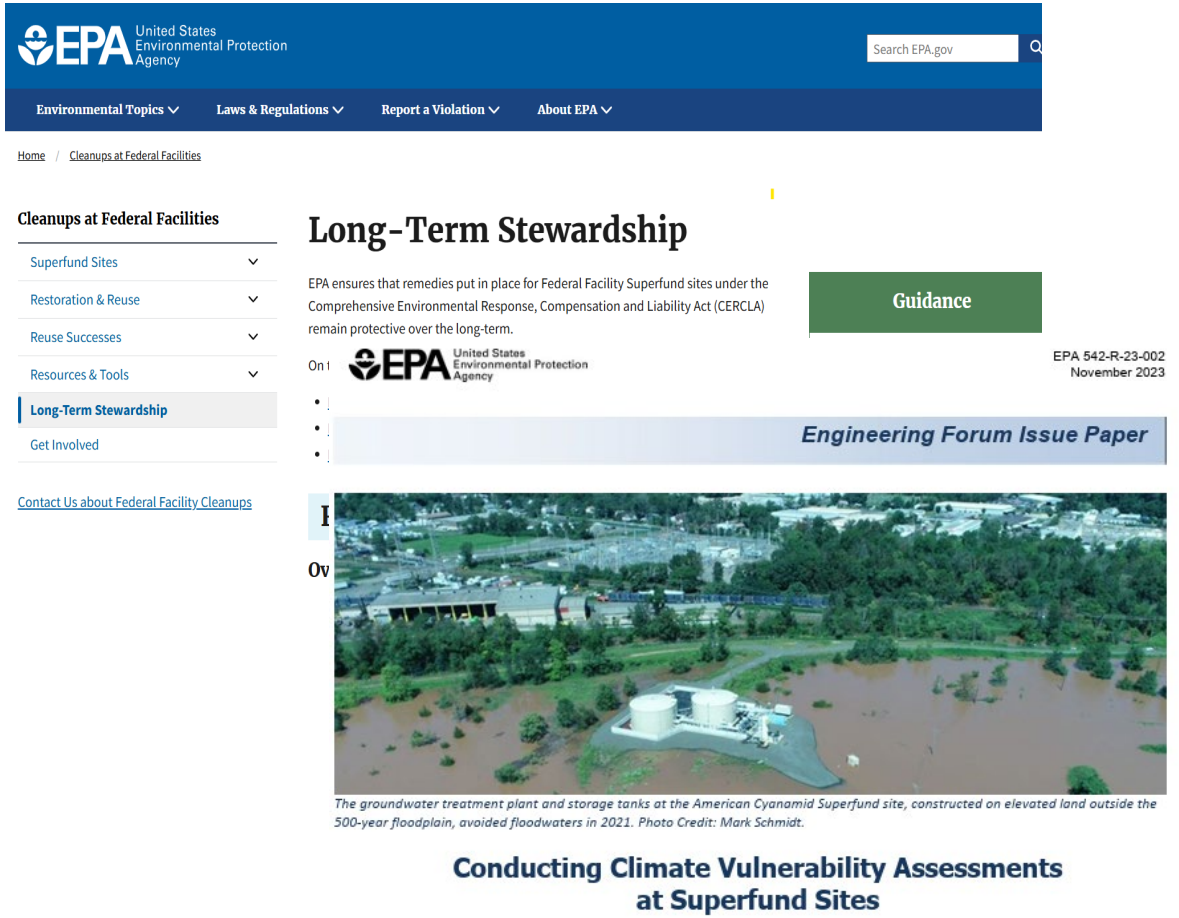
Durability through change in environment and site conditions

Protective of human health and the environment

Adaptable to maintain compliance with evolving regulatory standards

2023 United Heckathorn Vulnerability Assessment

- Completed on July 12, 2023.
- Performed to help inform cleanup design and maintenance decisions to protect against potential vulnerabilities.
- Examined how potential changes in the environment could affect current and future site conditions



Climate Vulnerability Assessment looked at…

- Documents describing previous cleanup actions
- Studies of new cleanup technologies
- Environmental hazards that could impact the site in the long term
- How environmental hazards could specifically impact clean strategies at United Heckathorn

United Heckathorn Site Overview

Aspects of a Resilient Cleanup Plan

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Q&A

Key Environmental Hazards Projected at United Heckathorn

PRECIPITATION/STORMS

SEA LEVEL RISE

GROUNDWATER RISE

Key Environmental Hazards Projected at United Heckathorn

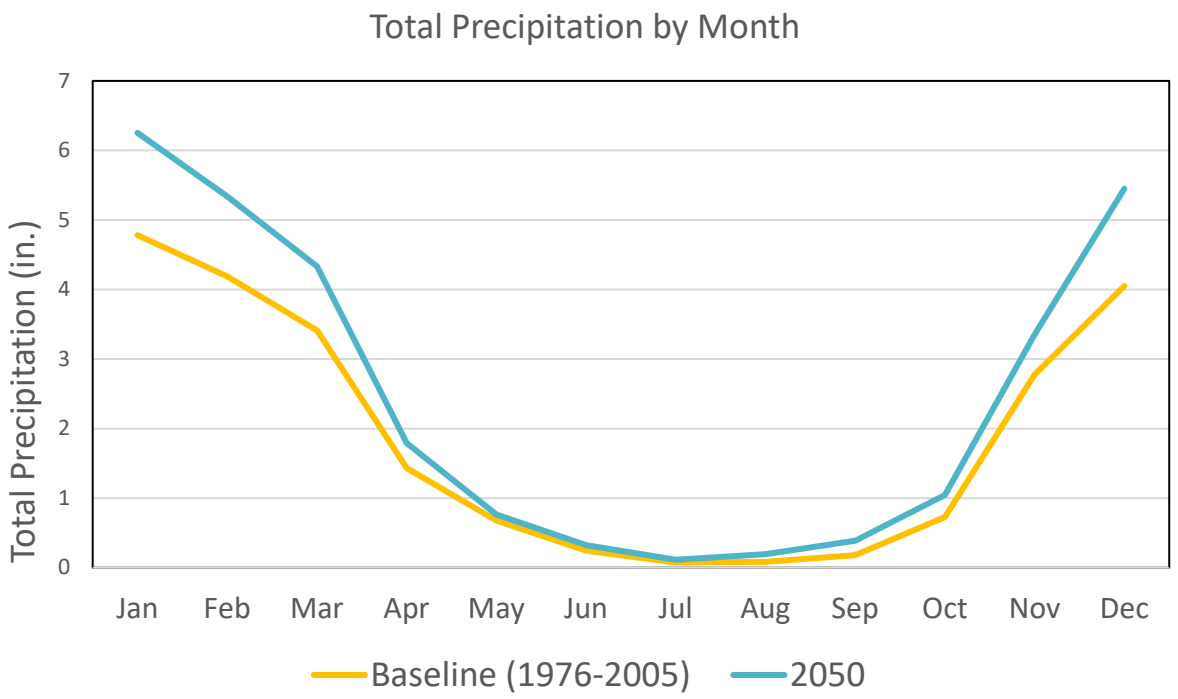
PRECIPITATION/STORMS

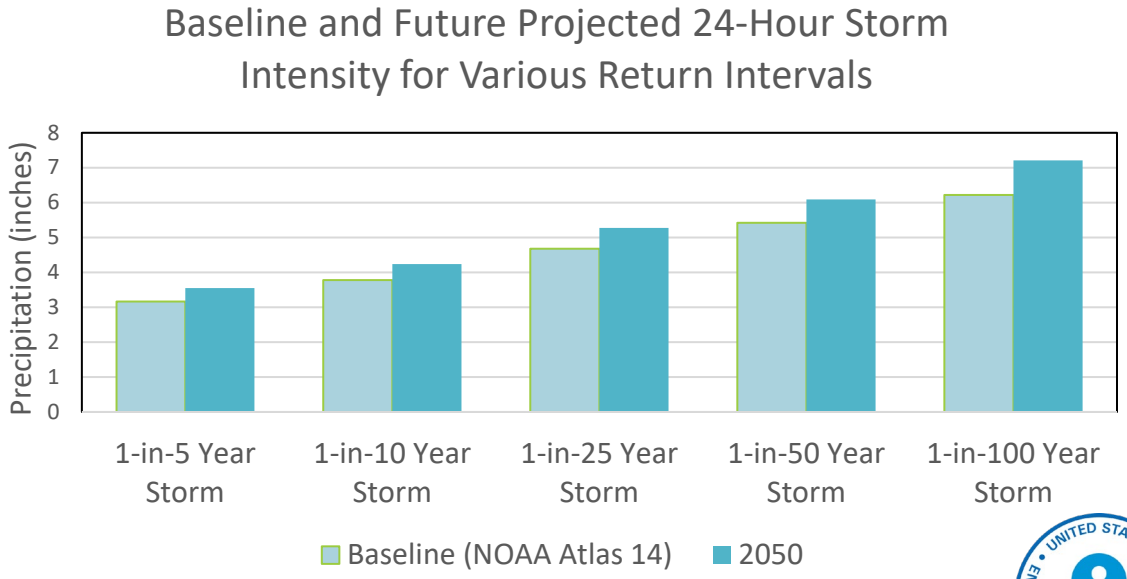
SEA LEVEL RISE

GROUNDWATER RISE

Precipitation and storms

- Precipitation totals projected to increase significantly by 2050
- Frequency and intensity of rain events projected to increase – leads to increased flood risk at the site





Analysis of LOCA downscaled data, RCP 8.5 90th percentile projections

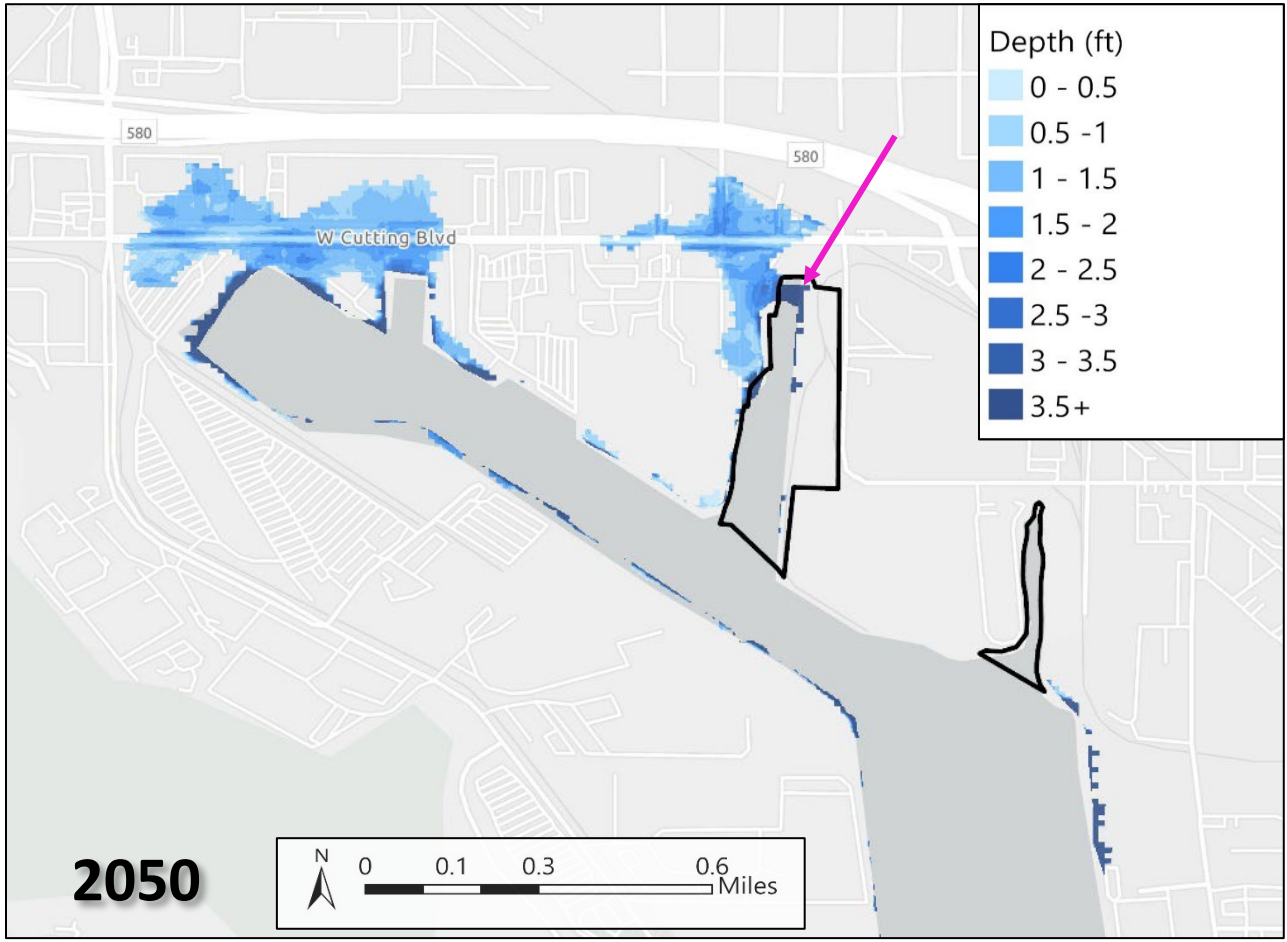
Precipitation and storms

- Ex: recent heavy rainfall events of December 2025-January 2026
- Extreme winds and rain across the bay caused flooding and damage.

Flooding in Oakland, CA from rain event on January 4, 2026

Precipitation and storms

- Flooding from heavy rain could affect a **small portion of the land area at the site in 2050** for a 1-in-100 year storm in a high emissions sea level rise scenario
  - 1-in-100 year storm has a 1% chance of happening each year



Projected storm surge extent and water depth in a 1 in 100 year storm with projected sea level rise

Source: Barnard, P.L., Erikson, L.H., Foxgrover, A.C., Limber, P.W., O'Neill, A.C., and Vitousek, S., 2018, Coastal Storm Modeling System (CoSMoS) for Southern California, v3.0, Phase 2 (ver. 1g, May 2018): U.S. Geological Survey data release, https://doi.org/10.5066/F7T151Q4.

Impacts of precipitation/storms at the site

Future Projection in Year 2050

- Monthly rain totals are projected to increase for September through April.
- Extreme storm events are projected to increase in frequency and intensity.
- Flood risk increased.

Site Cleanup Sensitivities

- Increased stormwater could exceed the designed capacity of the **stormwater treatment system**.
- Increased rain could impact the upland **gravel cap**.

Upland area cap

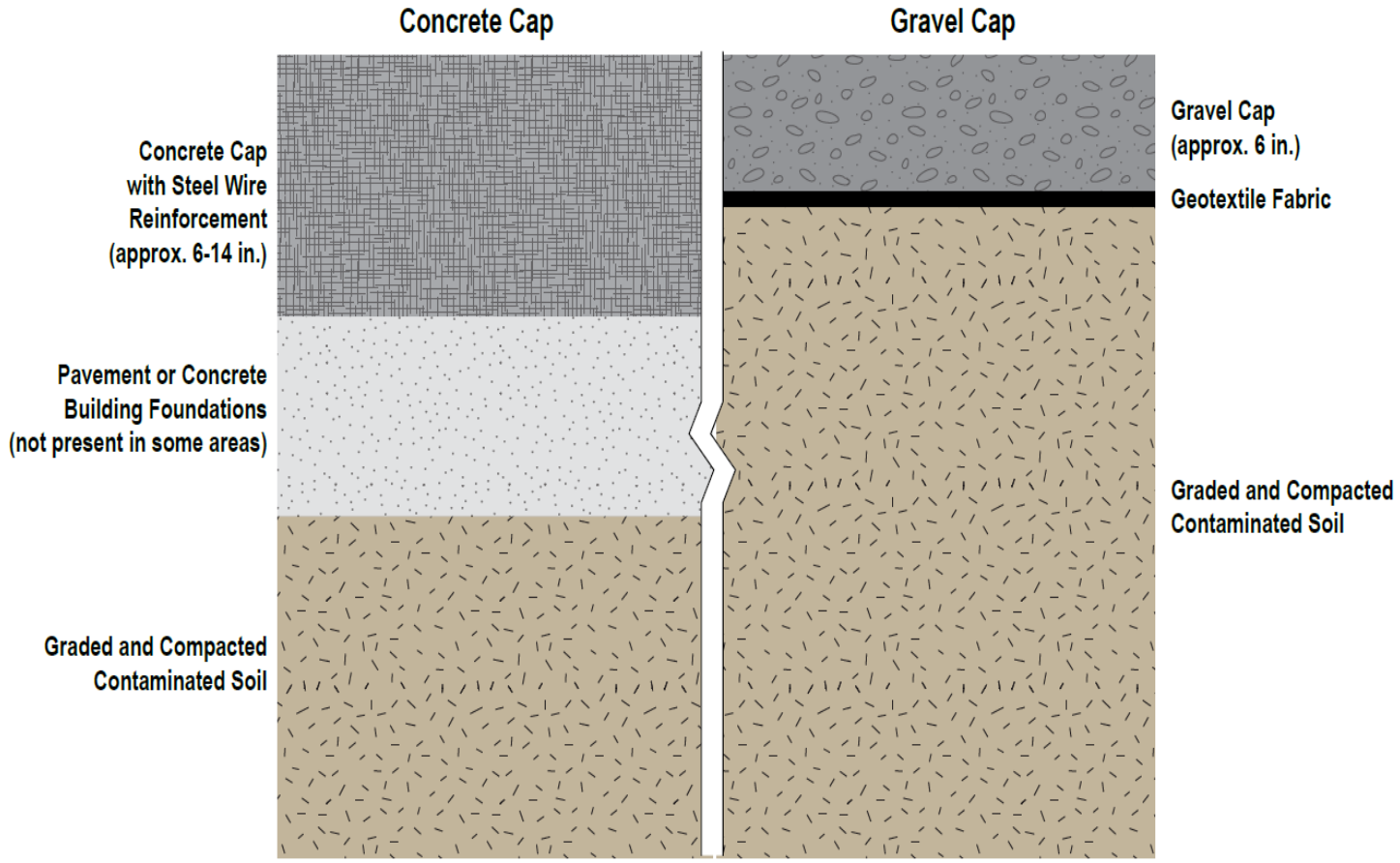
- Capping prevents contamination in the soil on land from eroding and spreading into the environment.
- Concrete cap reinforced with steel wire in yellow areas
- Gravel and geotextile cap in orange areas

CDIM Engineering, 2022-2023 Annual Report, United Heckathorn Superfund Site, Upland Capping System Richmond, California

Reinforced concrete cap

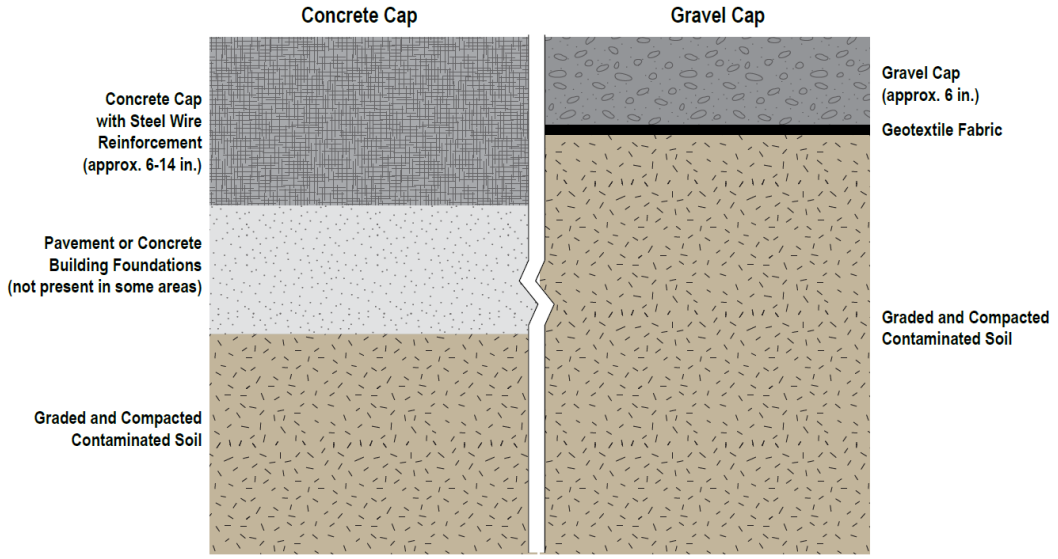
Gravel and geotextile cap

Upland cap



Reinforced concrete cap

Gravel and geotextile cap



Geotextile matting protects bare soil from erosion caused by wind and stormwater

Upland cap – geotextile fabric

Gravel cap

Concrete cap

Upland cap

Stormwater Treatment System

Stormwater treatment system (upper left) and gravel cap at the site, 2026

Precipitation + storms projection recommendations

- Portion of cap with reinforced concrete is expected to withstand projected increases in precipitation
- Monitor cap with storm events and replace gravel as needed
- Evaluate and increase capacity of stormwater treatment system

5 minute break for questions

Key Environmental Hazards Projected at United Heckathorn

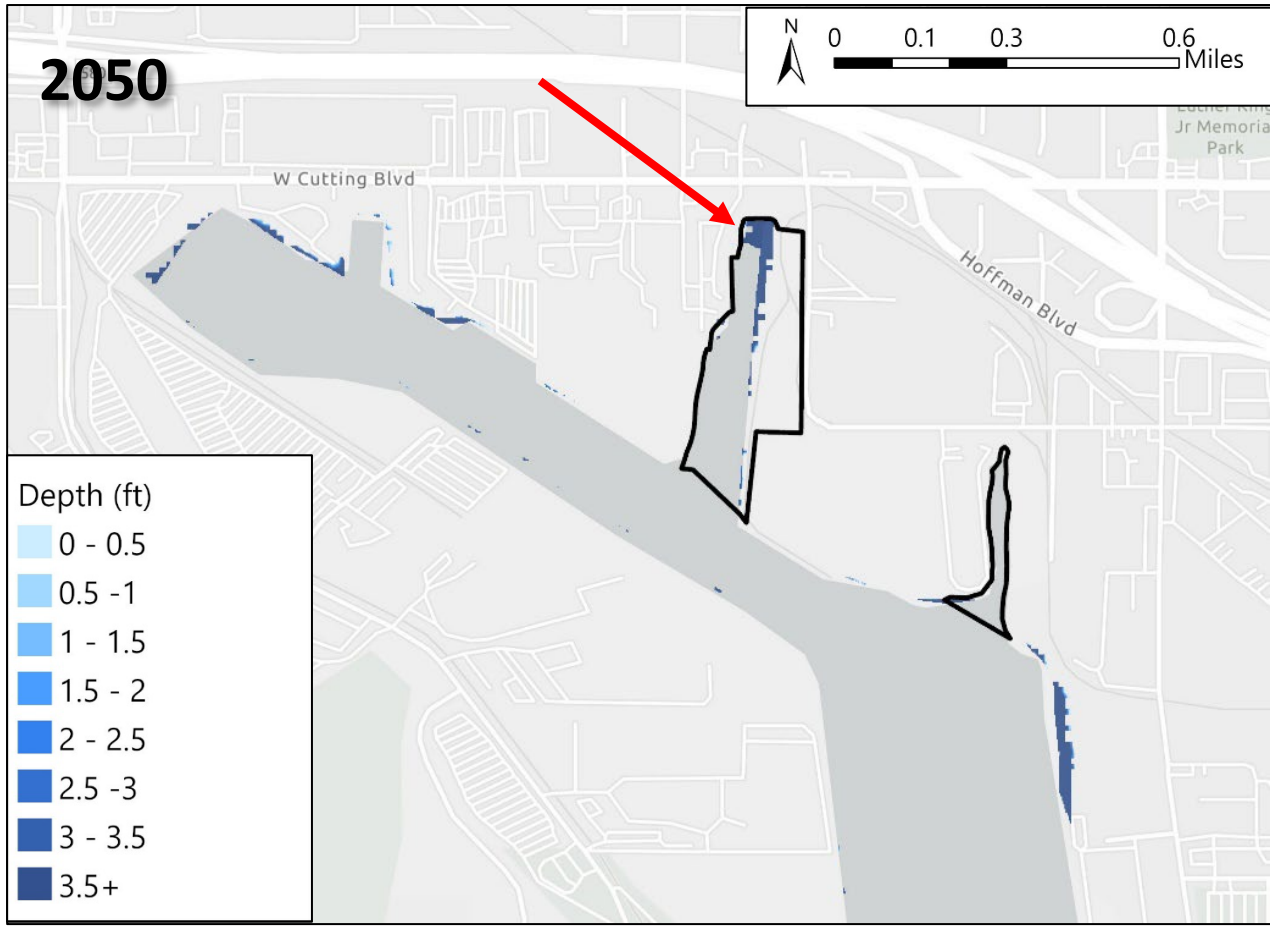
PRECIPITATION/STORMS

SEA LEVEL RISE

GROUNDWATER RISE

Sea Level Rise

Time Horizon	California Ocean Protection Council sea level rise projection at the site (2018 study)
2050	1.9 ft (0.57 m)

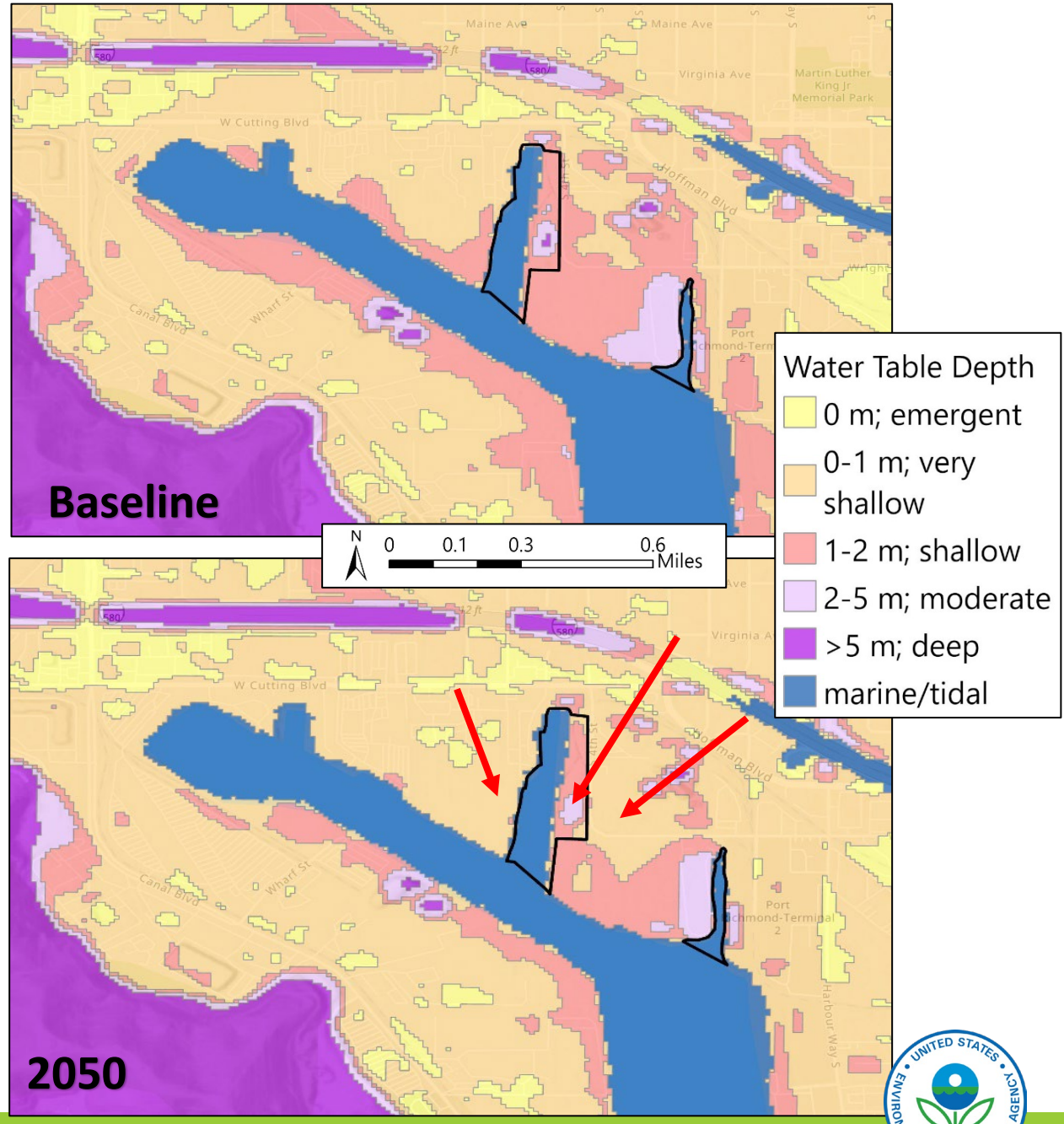


2050 projected sea level rise extent and depth under high emissions scenario

Barnard, P. L., Erickson, L. H., Foxgrover, A. C., Limber, P. W., O'Neill, A. C., & Vitousek, S. (2018). Coastal Storm Modeling System (CoSMoS) for Southern California, v3.0, Phase 2. U.S. Geologica Survey

Groundwater Rise

- **Groundwater rise** is when water located below the Earth's surface moves upward towards the surface due to heavy rain or sea level rise
- Groundwater rise has the potential to move pollutants in the soil into water that may surface or runoff into the Lauritzen Channel
- By 2050, groundwater levels may rise 1-2 meters (3-6 feet) in the areas around the site, but no significant changes within the site's boundaries.



Source: Befus, K.M., Hoover, D.J., Barnard, P.L., and Erikson, L.H., 2020, Projected responses of the coastal water table for California using present-day and future sea-level rise scenarios: U.S. Geological Survey data release, https://doi.org/10.5066/P9H5PBXP

Impacts of sea level and groundwater rise at the site

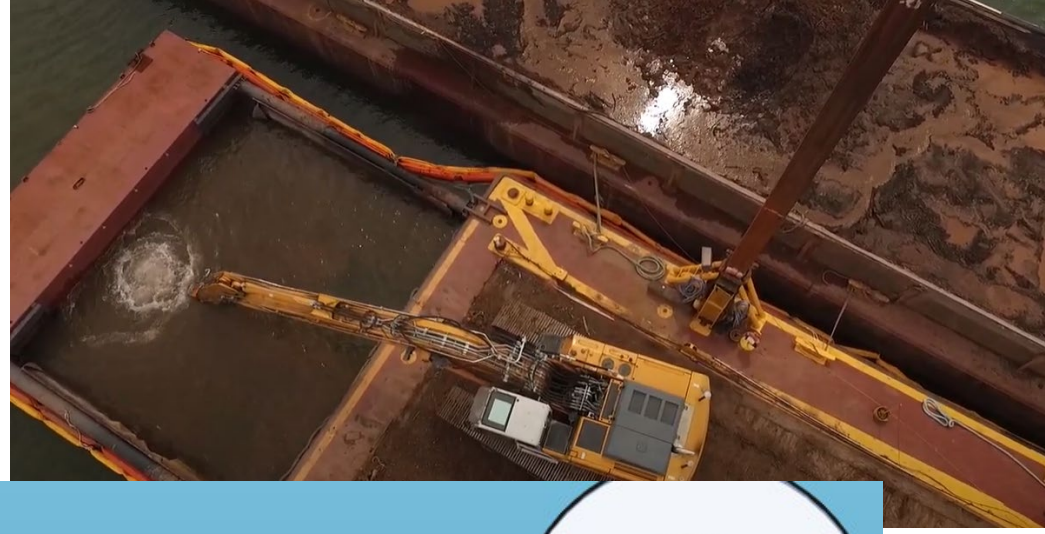
Future Projection

- By 2050 sea level rise, and groundwater rise are projected to increase coastal flooding in the area near the site.

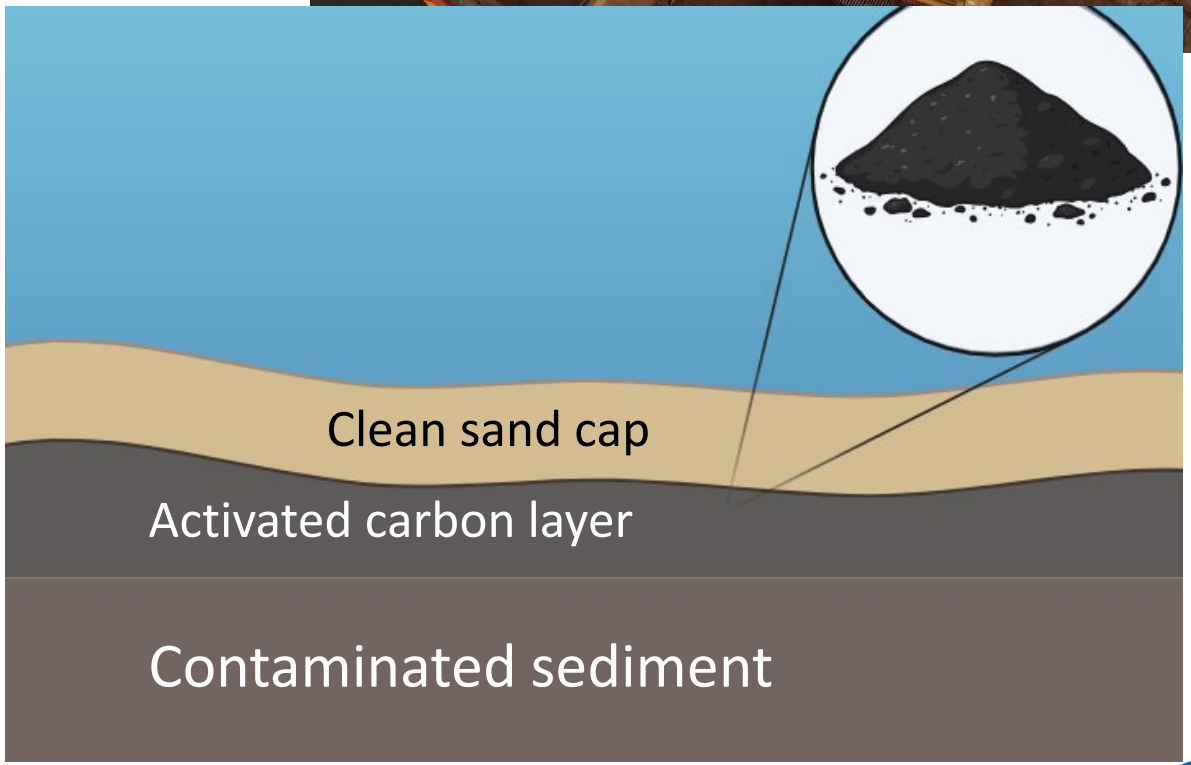
Site Cleanup Sensitivities

- Any kind of marine sediment cap placed over the marine sediments in the Lauritzen Channel could be destabilized.
- Groundwater rise may increase migration of contaminants from shoreline sources into the Lauritzen Channel.

Marine Sediment Cap

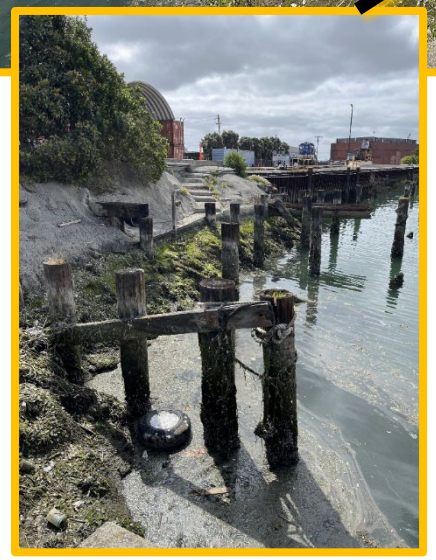


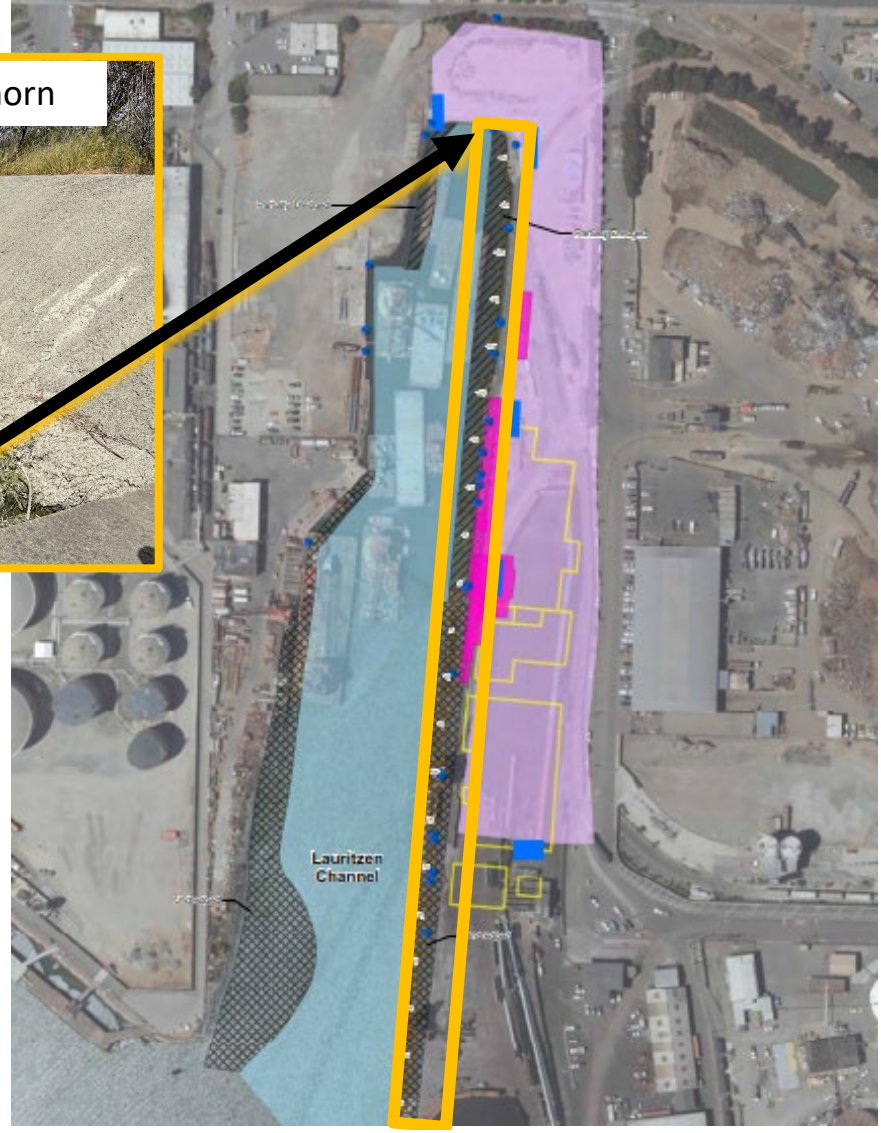
- Like a blanket of clean materials over contaminated marine sediment
  - Activated carbon can be used in a cap to trap contaminants and prevent them from moving around.
- Sea level rise could disturb any kind of marine sediment cap and make it less effective.



Shoreline sources of contamination

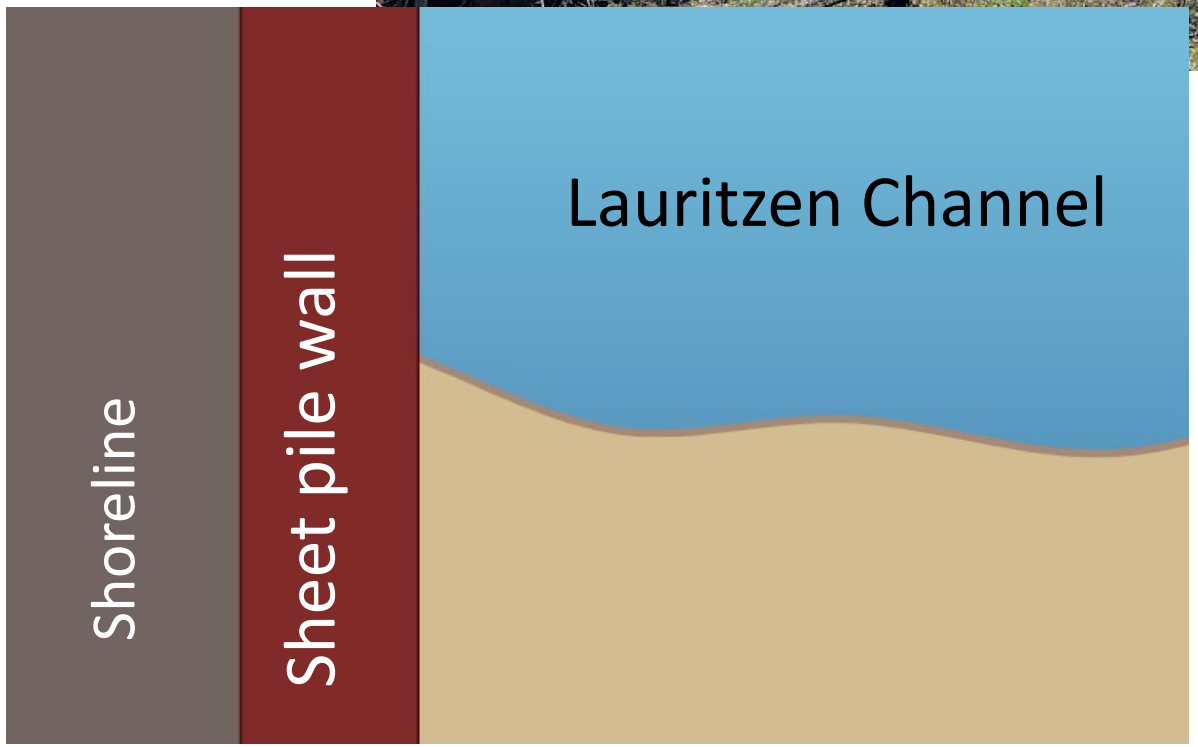
- Shoreline sources of contamination = sources of DDT and dieldrin contamination (in soil and groundwater) that continue to add contamination to the Lauritzen Channel.
- Ex: groundwater that rises could move DDT and dieldrin from the soils on site and into the Channel.
- Assessment recommends controlling shoreline sources.





What are shoreline source controls?

- Technologies that prevent contamination from the upland parts of the site from entering the Lauritzen Channel. Ex:
  - Sheet pile wall
  - Active carbon cap



Sea level + groundwater rise recommendations

Consider increases in wave action and turbulence due to sea level rise if using marine sediment caps.

Design cleanup to include shoreline source control measures to be resilient to groundwater rise and mitigate contaminant migration.

Shoreline areas of the Lauritzen Channel at United Heckathorn site, 2026

What does EPA do with this information?

- Use these estimates and considerations to inform site management decisions.
- Evaluate and/or refine our understanding of the site and its contaminants.
- Incorporate into the site's Five-Year Review and monitoring plans.
- Evaluate potential affects to current remedy and potential future cleanup plans (like the 2026 proposed cleanup strategy of the marine sediments in the Lauritzen Channel).

Long-term Effectiveness

- Long-term effectiveness is one of the nine criteria used to select a proposed cleanup.
- Climate Vulnerability Assessment is one part of evaluating the long-term effectiveness of a cleanup.
- Upcoming Proposed Plan for marine area will describe different cleanup plans EPA is evaluating.
- We monitor long-term effectiveness and protectiveness of a cleanup through the Five-Year Review process.

United Heckathorn Site Overview

Aspects of a Resilient Cleanup Plan

Projected Environmental Hazards

Next Steps

Q&A

Next Steps at United Heckathorn

- EPA will propose a cleanup plan to address the **marine area** of the site
- Upland area is **not** included in the upcoming cleanup proposal
- Upland area continues to be monitored – formal annual inspection + frequent visual monitoring.
  - Recommendations from the vulnerability assessment will be folded into the monitoring routine.
  - Will be thoroughly evaluated in the Five-Year Review by Fall 2026.

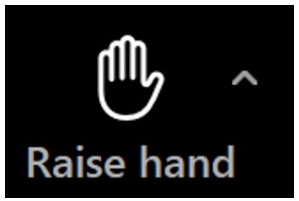
Acknowledgements

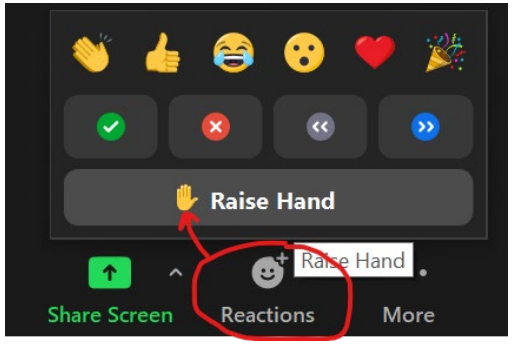
EPA Technical Assistance Services for Communities

- Upcoming meetings for the community, dates to be determined.
- Scientist to provide support understanding topics related to United Heckathorn.
- Stay up to date by joining the mailing list – email Jayasekera.Hiruni@epa.gov

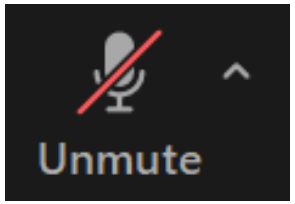
Questions and Discussion

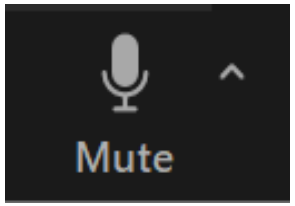
- Participants may enter questions in the Q&A box.
- Participants may raise hands via Zoom to ask questions verbally.
- Speak slowly and clearly to assist with interpretation.
- Questions will be read out loud to speakers.





Press *9 on telephone keypad to raise hand





Press *6 on telephone keypad to unmute

Stay connected

Join the mailing list by emailing:

- Jayasekera.Hiruni@epa.gov

Visit our website: epa.gov/superfund/unitedheckathorn

Contact us

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Grace Beery – Site Project Manager

Beery.Grace@epa.gov

415-972-3207

Hiruni Jayasekera – Community Involvement Coordinator

Jayasekera.Hiruni@epa.gov

415-947-4307

Five Year Review Notice

- United Heckathorn, 8th & Wright, Richmond, CA 94804, https://www.epa.gov/superfund/unitedheckathorn
- EPA is the lead agency conducting the review
- The remedy selected for the Upland Area includes capping, monitoring and maintenance of the constructed cap, and deed notice
- Spills, leaks, and releases of pesticides resulted in direct discharge to soils and waterways.
- Interested community members can submit a questionnaire to EPA if interested in contributing to the review process
- For additional information please contact Cynthia Ruelas (FYR Coordinator, 415-972-3329, ruelas.cynthia@epa.gov)
- Five-year review completion date is September 30, 2026