FORMER BEALE AFB
TITAN 1-A MISSILE FACILITY
FUDS PROJECT

FUDS PROJECT #J09CA1108-01

USACE Informational Public Meeting

May 31, 2023

Sun City Lincoln Hills
Orchard Creek Ballroom

U.S. ARMY

US Army Corps of Engineers®

AGENDA

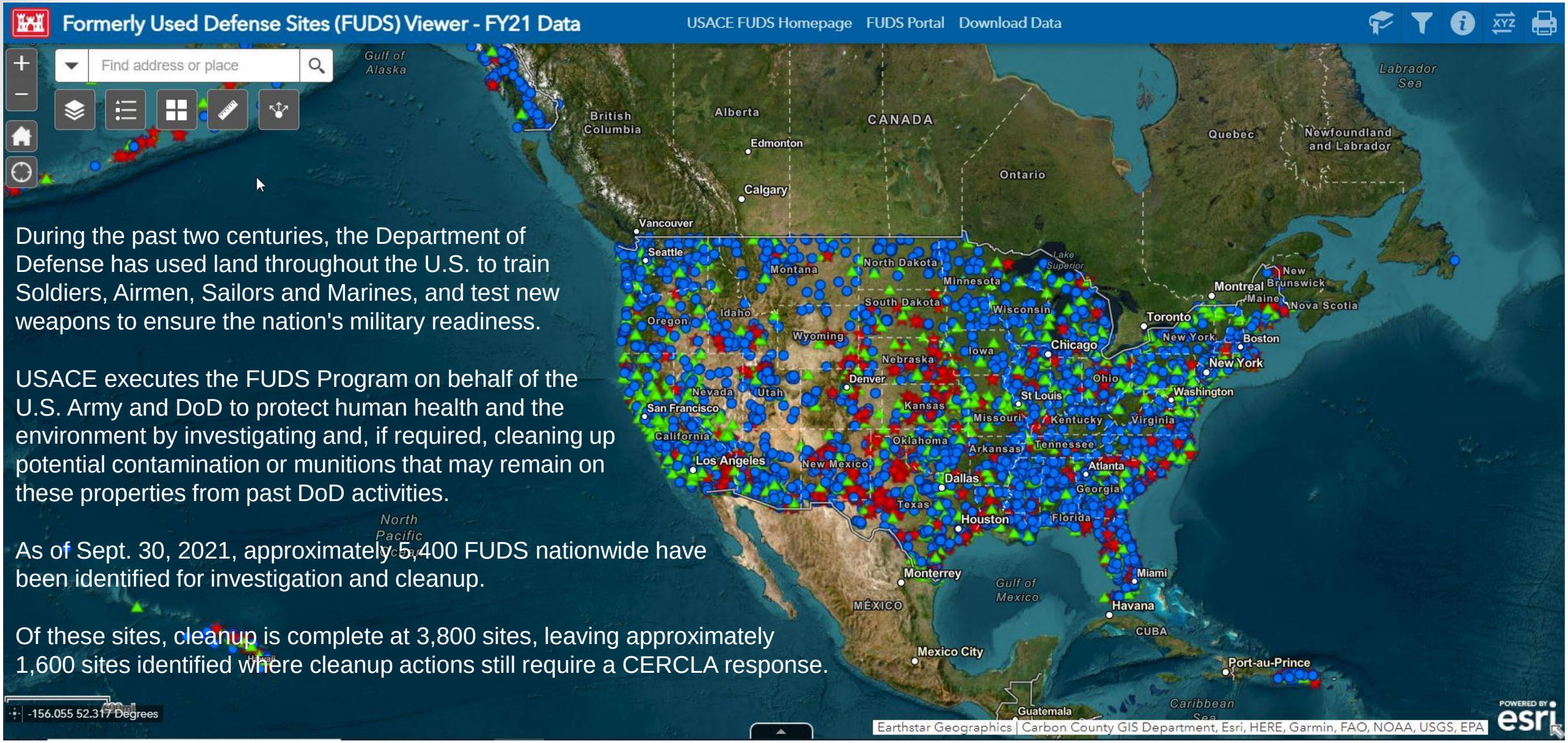
Presentation – 30 minutes

- Formerly Used Defense Site (FUDS) Overview
- U.S. Army Corps of Engineers (USACE) Role
- Site Background
- CERCLA Remedial Action Process
- Current Activities
- Schedule
- Future Activities
- Restoration Advisory Board
- Staying Connected

Open House – 90 minutes

- Ask questions to the USACE team working the project

FORMERLY USED DEFENSE SITES OVERVIEW



During the past two centuries, the Department of Defense has used land throughout the U.S. to train Soldiers, Airmen, Sailors and Marines, and test new weapons to ensure the nation's military readiness.

USACE executes the FUDS Program on behalf of the U.S. Army and DoD to protect human health and the environment by investigating and, if required, cleaning up potential contamination or munitions that may remain on these properties from past DoD activities.

As of Sept. 30, 2021, approximately 5,400 FUDS nationwide have been identified for investigation and cleanup.

Of these sites, cleanup is complete at 3,800 sites, leaving approximately 1,600 sites identified where cleanup actions still require a CERCLA response.

USACE ROLE IN FUDS PROJECTS

For projects to be eligible under FUDS:

- Property was formerly owned by, leased to, or otherwise possessed by the United States; under the jurisdiction of the Secretary of Defense; and transferred from the Secretary's control prior to October 1986
- Known or potential contamination must be attributable to DoD activities prior to 1986 and associated with the eligible property

NOTE: Only contamination attributable to DoD activities can be remedied through FUDS program.

USACE Sacramento District is currently in the process of completing its Remedial Investigation to clean up trichloroethene (TCE) at the Former Beale AFB Titan 1-A Missile Site.

- Trichloroethene (TCE) is a common chemical compound widely used as an industrial solvent to degrease metal parts. It's also used in some household products, such as cleaners and polishes, paint removers, and carpet cleaners and spot removers.

FORMER BEALE AFB TITAN 1-A MISSILE FACILITY

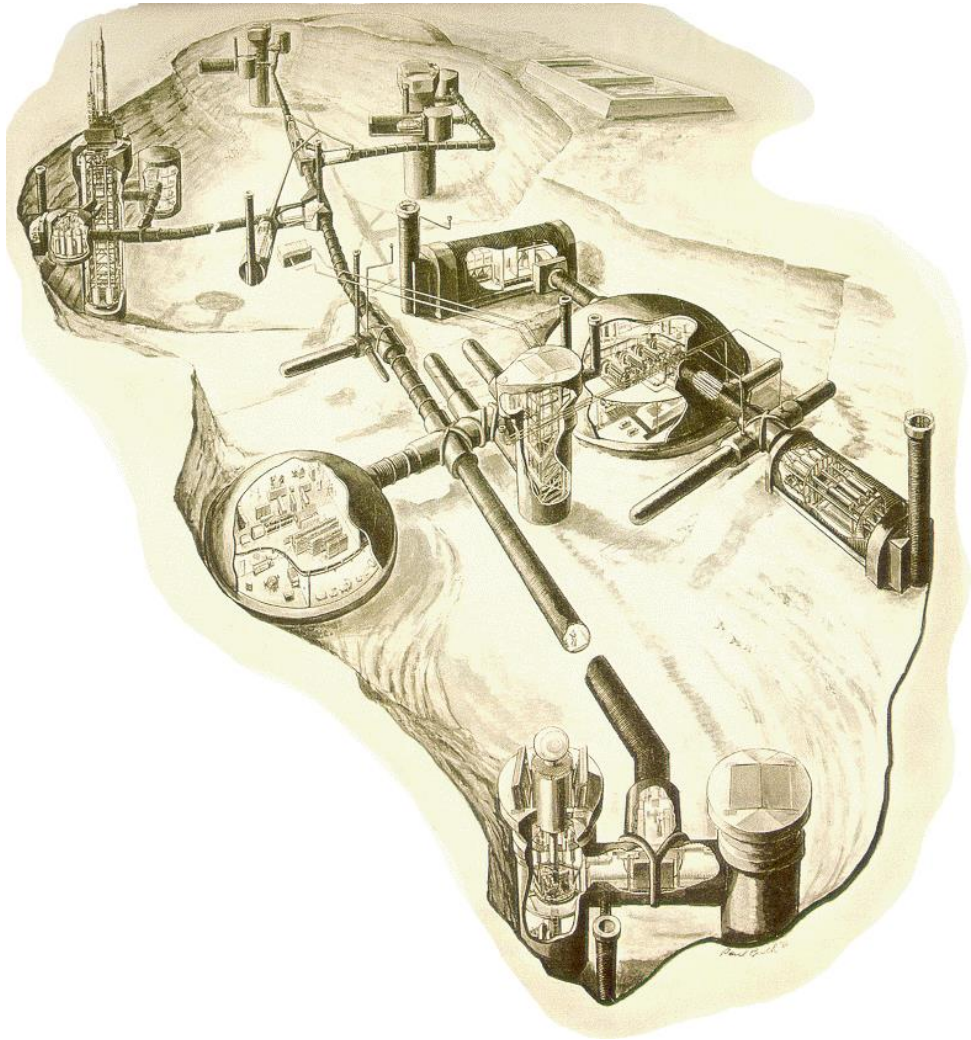
Completed in **1962**; Dismantled in **1968**

Consisted of three 160-foot-deep missile silos, with adjacent underground and above-ground features including storage tanks, distribution lines, electrical wiring, water supply, communication lines, and wastewater collection facilities.

1968: Placer County acquired a parcel of the complex
Adjacent parcels acquired by private owners since 1968

1991: Presence of trichloroethene (TCE) discovered southwest of the site as a result of groundwater sampling

1994: USACE authorized to begin remedial investigations of soil, soil vapor, and groundwater through the Formerly Used Defense Sites (FUDS) Program



A LITTLE MORE HISTORY

2001-2004: USACE began small-scale pilot groundwater extraction and treatment system. Approximately 10 pounds of TCE were removed by extracting impacted groundwater

2002: Soil Vapor Extraction test performed at 4 wells to test soil permeability/vacuum radius of influence

2005: Performed two bench-scale studies testing chemical oxidation and enhanced bioremediation effectiveness on site contamination

2007-2008: Feasibility Study Report complete; Addendum adds remedial alternative for consideration

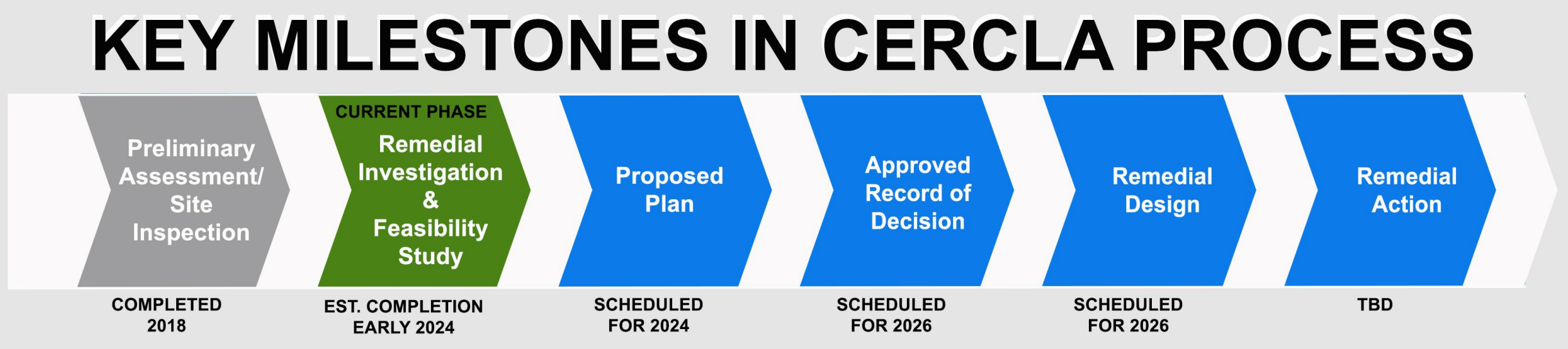
2009: USACE field activities related to the Titan 1-A FUDS project stopped to investigate other potential sources of TCE contamination.

2018: USACE re-initiates Titan 1-A FUDS project, remedial investigation activities

2019: USACE installs 19 new groundwater monitoring wells in addition to 14 pre-existing wells and 24 new Soil Vapor Probes; Begins collecting data quarterly to assess status across varying conditions.

REMEDIAL ACTION PROCESS

FUDS projects must proceed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Defense Environmental Restoration Program (DERP) Manual, and ER 200-3-1 FUDS Program Policy.



USACE is currently focused on completing the requisite studies to make a determination regarding the type and timing of mitigation strategies. It is too early to know when mitigation will be complete.

CURRENT PHASE (RI/FS) ACTIVITIES

Remedial Investigation Activities:

- Determine nature and extent of contamination to support development and evaluation of effective remedial alternatives in the Feasibility Study
- Provide information to support assessment of potential risks to human health, safety, and the environment
- Determine the potential need for Remedial Actions

Feasibility Study Activities:

- Develop Remedial Action objectives, which define the conditions to achieve Response Complete
- Identify and evaluate a range of potential technologies and mechanisms capable of contributing to meeting Remedial Action objectives
- Evaluate Remedial Action alternatives moved forward for additional consideration

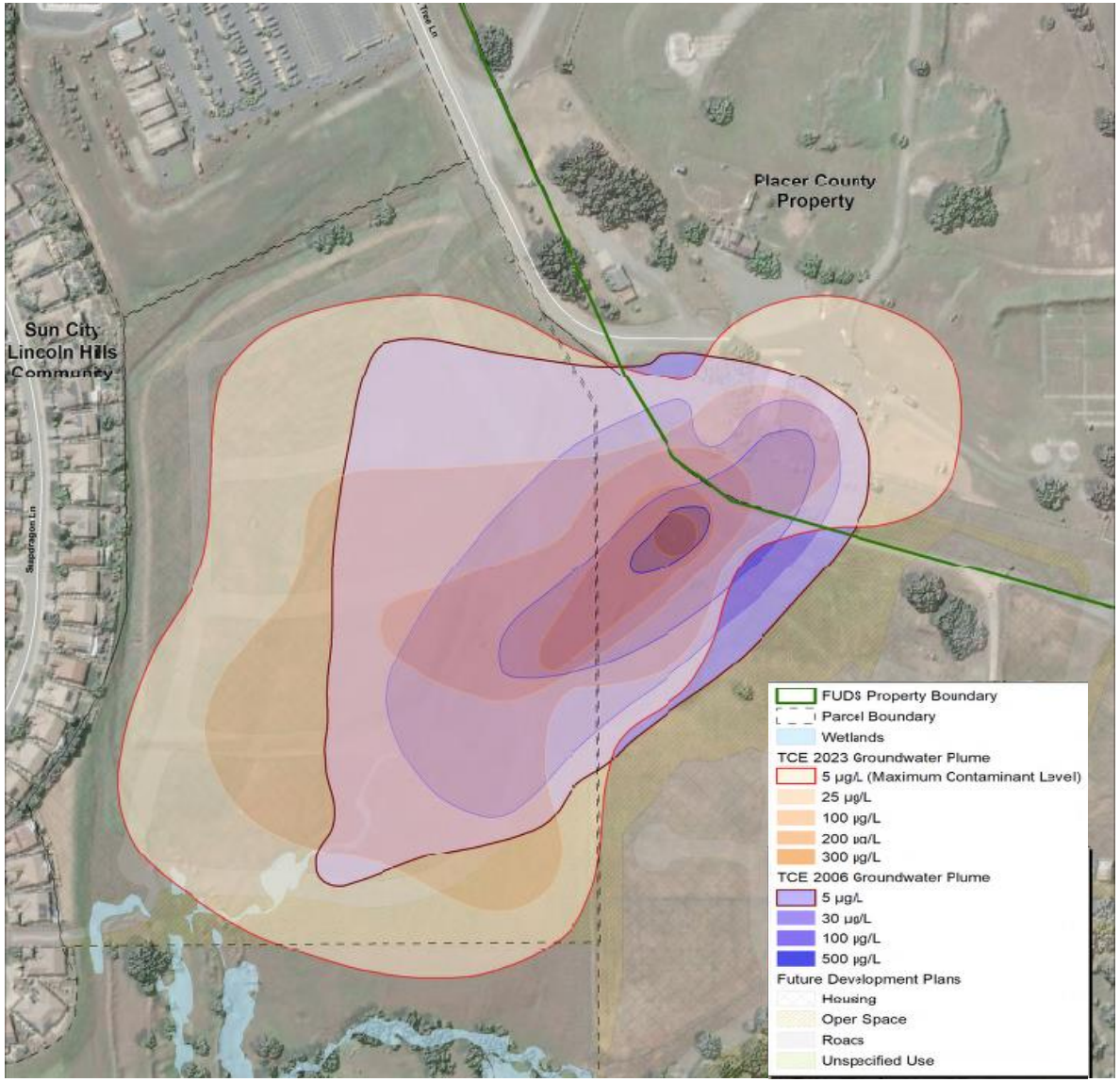
PLUME DATA: 2006 VS NOW(2023 Q1)

2006 vs Now

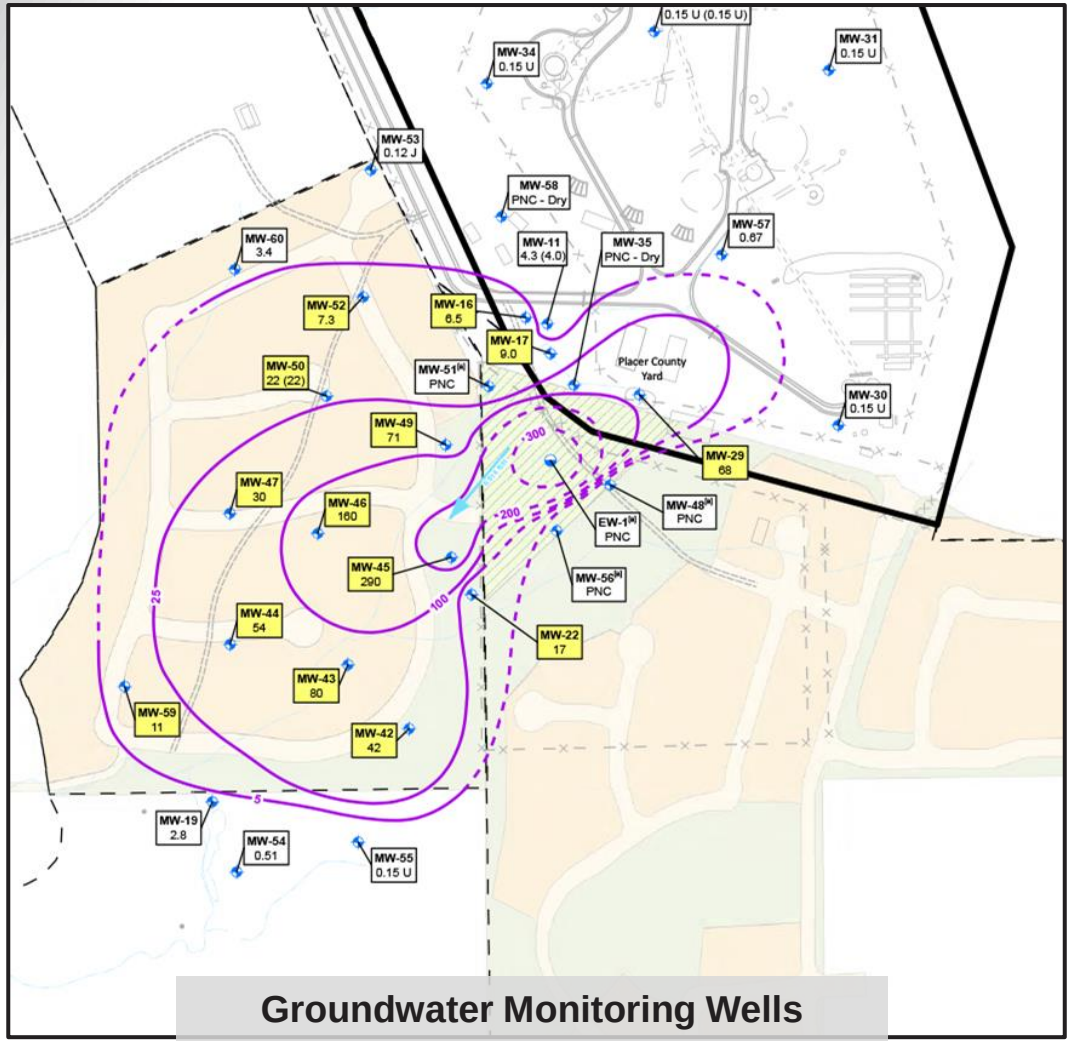
- Highest TCE concentrations detected at EW-1 both then (1,300 µg/L) and now (540 µg/L)

	2000 (acres)	2006 (acres)	2023 (acres)
Area of 100 µg/L	5.3	2.7	3.7
Area of 5 µg/L	21.2	16.3	28.6

- 19 New groundwater wells installed 2019-2020 provides higher sample density to inform plume area calculations.



GROUNDWATER SAMPLING DATA



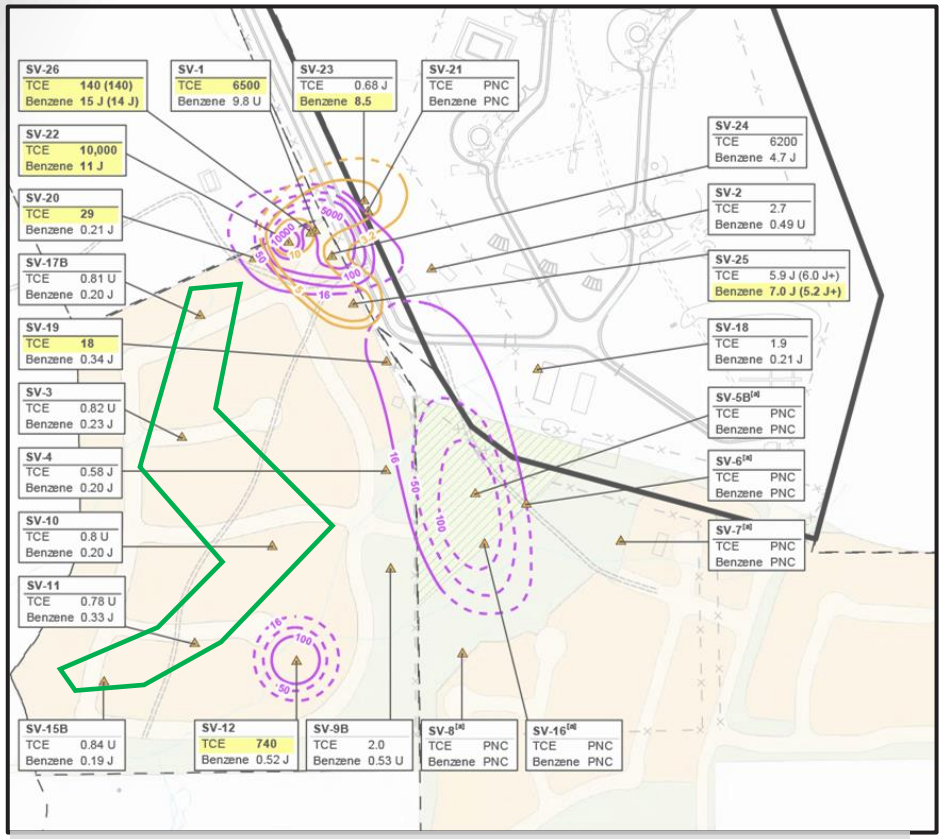
Groundwater Monitoring Wells

2019-2023:

- 19 New monitoring wells installed
- Sampled quarterly for volatile organic compounds, including trichloroethene (TCE)
- All samples can detect TCE below the maximum contaminant level (MCL) of 5 µg/L
- Groundwater flows to the southwest
  - 20-30 feet below ground to north/east
  - As shallow as 5 feet below ground to the southwest

Groundwater Sampling

SOIL VAPOR SAMPLING DATA (AS OF 2022 Q3)



Soil Vapor Probes

2019-2023:

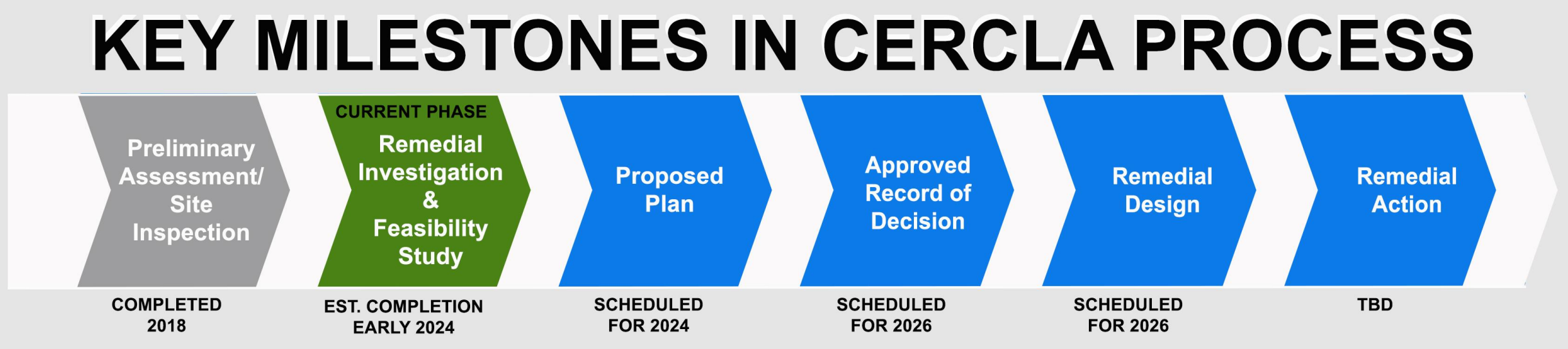
- 24 New soil vapor probes installed
- Sampled quarterly for volatile organic compounds, including trichloroethene (TCE)
- All samples can detect TCE below the risk-based screening level of 16 µg/m^3,SFRWQCB, Residential Vapor Intrusion (VI) Human Health Risk Screening Levels
- Soil Vapor probes installed as close to groundwater interface as possible
- 2022: SV-22 to SV-26 installed to better understand TCE at SV-1
  - Understanding the delineation and source of TCE at SV-1 is a continuing effort

Soil Vapor Sampling

Data tells us that nearby residences are not being exposed to TCE vapors, and there is no evidence TCE is reaching nearby neighborhoods. **There is no imminent danger to surrounding communities.**

REMEDIAL ACTION SCHEDULE

FUDS projects must proceed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Defense Environmental Restoration Program (DERP) Manual, and ER 200-3-1 FUDS Program Policy.



USACE is currently focused on completing the requisite studies to make a determination regarding the type and timing of mitigation strategies. It is too early to know when mitigation will be complete.

FUTURE ACTIVITIES

Proposed Plan:

- USACE presents its preferred alternative including the basis of selection
- Includes a public review and comment period for community feedback

Record of Decision (ROD):

- Documents USACE's selected remedy after consideration of regulator and public comments
- Remedy must be protective of human health and environment as well as comply with applicable or relevant and appropriate environmental requirements (ARAR) or justify waiver of ARAR requirement
- Provides response to regulator and public comments received during the public comment period

Remedial Design:

- Project transitions from investigation to cleanup
- Provides technical analysis and procedures for site and may require preparation of a detailed set of plans and specifications for implementation of the Remedial Action

Remedial Action:

- Implement and maintain authorized actions until Response Complete achieved

RESTORATION ADVISORY BOARD

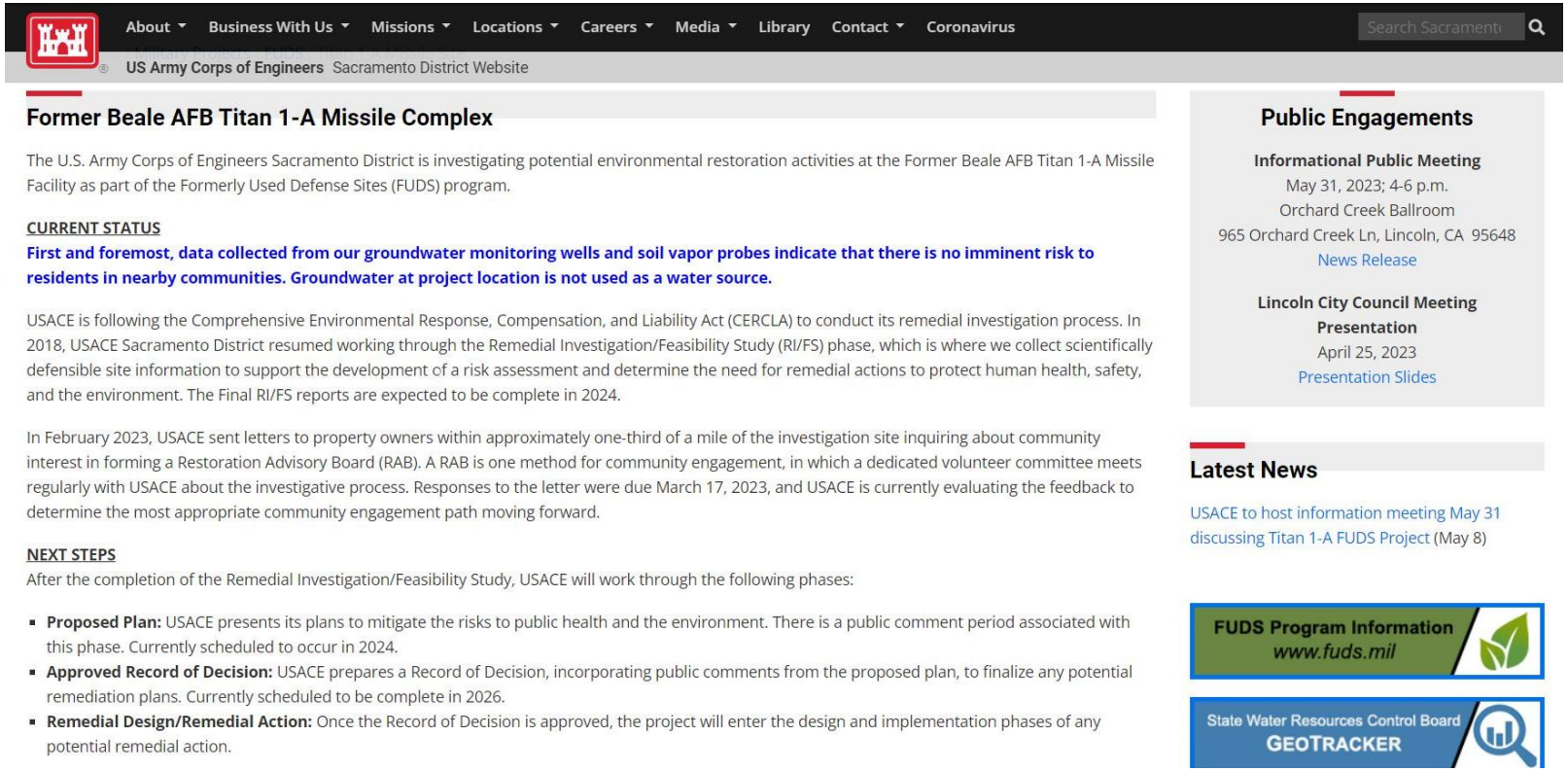
What is a RAB?
A RAB is an advisory body designed to act as a focal point for the exchange of information between USACE and the local community regarding environmental restoration activities. By bringing together community members who reflect the diverse interests of the community, the RAB enables continued two-way information flow between the affected community and USACE throughout the process.

Current Status:
USACE sent letters to 450 property owners within 1/3 of a mile of project location in FEB 2023 to gauge community interest in forming a RAB. Based on what we've heard, we are recommending to our leadership to establish a RAB. Once we get approval to move forward with RAB, we will be reaching out to those who expressed interest in participating with more information.

How you can participate:
If you didn't receive a letter earlier this year or if you did receive a letter but didn't submit a Community Interest Form, we are offering anyone who is interested the opportunity to submit a form for potential participation in a Restoration Advisory Board. Forms are available here and on our project web site. Please submit by June 11, 2023 through the methods listed on the form.

STAY CONNECTED

Project Web Page:
www.Titan1ACleanup.com
has the latest status of our project, answers to frequently asked questions, and links to the latest reports and documents on GeoTracker and in our Administrative Record.



E-mail Distribution List:
Sign-in sheets for today's information meeting include a section to opt-in for future e-mail updates direct from USACE with the latest project-related news and updates.

Contact Information:
USACE Public Affairs Office, 916-557-5100, spk-pao@usace.army.mil
USACE SPK FUDS Program, spk_fuds@usace.army.mil