



# **Third CERCLA Five-Year Review Addendum**

## **Former Marine Corps Air Station El Toro, Irvine, California**

120th Restoration Advisory Board Meeting

**Kyle Olewnik**

Base Realignment and Closure (BRAC) Environmental Coordinator

U.S. Department of the Navy (Navy)

BRAC Program Management Office West

San Diego, California

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# Presentation Overview



## Purpose and Objective

### **Final Third Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Five-Year Review (September 2019)**

- Overview of the process
- Protectiveness Statements
- Outstanding issues to resolve

### **Draft Addendum to Final Third CERCLA Five-Year Review (June 2020)**

- Sites
- Protectiveness Statements
- Schedule

# Five-Year Review Purpose and Objective



## ***Purpose***

- Evaluate the performance and implementation of a remedy to determine if the remedy is or will be protective of human health and the environment (U.S. Environmental Protection Agency *Comprehensive Five-Year Review Guidance*, June 2001)

## ***Objective***

- Evaluate sites to determine if the remedies are protective and prepare the five-year review pursuant to CERCLA Section 121

# Components of a Five-Year Review (cont.)



Figure 1: Components of the Five-Year Review Process

# Components of a Five-Year Review (cont.)



## ***Protectiveness Statements***

- The fundamental purpose of a five-year review is to determine whether the remedy at a site is, or upon remedy construction completion will be, protective of human health and the environment.
- A technical assessment of the existing site remedies is performed with the objective of answering the following three questions:

Question A: Is the remedy functioning as intended by the decision documents?

Question B: Are the exposure assumptions, toxicity data and Remedial Action Objectives used at the time of remedy selection still valid?

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

## Components of a Five-Year Review (cont.)



### ***Protectiveness Statements: Is the remedy protective?***

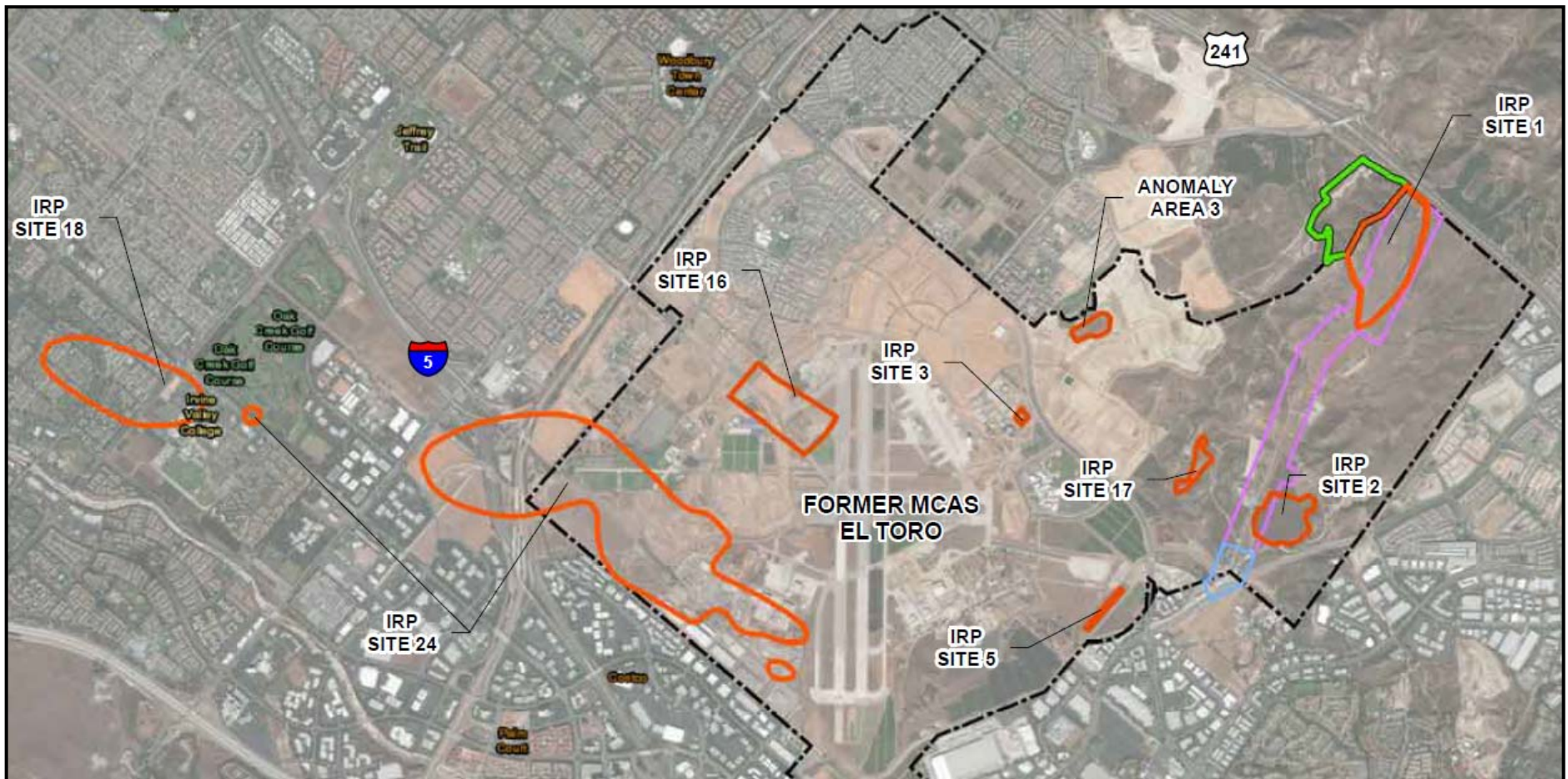
- Protective
- Protective in the short term
- Will be protective
- Protectiveness deferred
- Not protective

# Final Third CERCLA Five-Year Review Sites



- Installation Restoration Program (IRP) Sites 1 and 2 (perchlorate- and volatile organic compound [VOC]-impacted groundwater)
- IRP Sites 2 and 17 (landfills)
- IRP Sites 3 and 5 (landfills)
- Anomaly Area 3 (landfill)
- IRP Site 16 (VOC-impacted groundwater)
- IRP Sites 18 and 24 (VOC-impacted groundwater)

# Final Third CERCLA Five-Year Review Sites (cont.)





# Draft Addendum to Final Third CERCLA Five-Year Review Tasks



- Reevaluate vapor intrusion (VI) risks and hazards associated with IRP Sites 2, 16, and 24
- Complete administrative work to achieve long-term protectiveness and ensure compliance with Title 27 of the California Code of Regulations at IRP Site 3, Waste Area C1
- Complete capture zone evaluations for IRP Sites 18 and 24
- Continue assessing per- and polyfluoroalkyl substances (PFAS) impacts to groundwater at IRP Sites 18 and 24; monitor evolving PFAS regulations
- Address the issue of lead in soil at IRP Site 24
- Identify Navy plans to ensure the current use of previously transferred IRP Site 24 property is protective of human health in light of the deferral of the protectiveness determination in the Final Third CERCLA Five-Year Review
- Add missing interview contact list in Appendix C of the Final Third CERCLA Five-Year Review.

# IRP Site 2 VI Evaluation



## Lines of evidence approach for protectiveness statement

- Relatively large distance between minimally impacted groundwater and the ground surface significantly limits potential for VI
- Previous modeling indicated no unacceptable VI risk
- Updated review of risk calculations still indicates no unacceptable VI risk
- Modeling results show the VOC plume will dissipate to meet the remediation goals by 2045; therefore, the potential for VI will continue to decrease over time
- Current lease restrictions prohibit construction of buildings without approval

## Recommendation

- Maintain the full protectiveness determination for IRP 2 groundwater

# IRP Site 3 Administrative Actions



## Considerations for evaluation of the protectiveness statement

- Finalization of the Draft Explanation of Significant Differences (ESD) is pending
- Anticipated voluntary execution of land-use covenants (LUCs) by property owners
- Initiated quarterly inspections of Waste Area C1 independent of IRP Site 3/Waste Area A proper
- Demonstrated the lack of need to continue (IRP Site 3 proper) or begin (Waste Area C1) quarterly landfill gas monitoring

## Recommendation

- Remove the short-term qualifier on the protectiveness determination for IRP Site 3 once the ESD, LUCs, and Draft Landfill Gas Monitoring Optimization Report are finalized

# IRP Site 16 VI Evaluation



## Considerations for evaluation of the protectiveness statement

- No current or proposed land use that would present a VI risk

## Recommendations

- Complete responses to comments on the Draft Final Remedial Action Completion Report, Deep Vadose Zone in an attempt to close the site using available information or defer on providing responses and propose additional soil vapor sampling and VI risk assessment in a draft work plan
- Make no change at this time to the short-term protectiveness statement for the IRP Site 16 deep vadose zone

# IRP Sites 18 and 24 Issues



## Considerations for evaluation of the protectiveness statement

- Working with Orange County and Irvine Ranch Water Districts to complete groundwater model updates
- Continuing PFAS investigations under CERCLA
  - Completed additional groundwater investigation
  - Submitted Draft Preliminary Assessment Report
  - Working on Draft Site Inspection Report and Remedial Investigation Work Plan
- Discussed new VI protocols with the Department of Toxic Substances Control and currently contracting an investigation
- Reviewed Navy policies with respect to responsibilities for lead-based paint
- Proposed notifying the Carve-Out III-B-3 lessee and assignee/sublessee and the new property owners about potential VI risks based on third-party soil vapor results

## Recommendation

- Continue to defer the protectiveness statement for the IRP Site 24 vadose zone until sufficient information is collected to make a conclusion

# Updated Protectiveness Statements



- **IRP Site 2 (groundwater):** Protective (short/long term)
- **IRP Site 3:** Short-Term Protective until the ESD, LUCs, and Draft Landfill Gas Monitoring Optimization Report are finalized
- **IRP Site 16 (deep vadose zone):** Short-Term Protective
- **IRP Sites 18 and 24 (groundwater):** Short-Term Protective
- **IRP Site 24 (vadose zone):** Deferred

# Schedule



- June 2020: Issued Draft Addendum to Final Third CERCLA Five-Year Review
- September 2020: Receive and Respond to Review Comments, Gain Concurrence, and Issue Final Addendum to Final Third CERCLA Five-Year Review

# Acronyms



**BRAC** – Base Realignment and Closure

**CERCLA** – Comprehensive Environmental Response, Compensation, and Liability Act

**ESD** – Explanation of Significant Differences

**IRP** – Installation Restoration Program

**LUC** – Land-Use Covenant

**Navy** – U.S. Department of the Navy

**PFAS** – per- and polyfluoroalkyl substances

**VI** – vapor intrusion

**VOC** – volatile organic compound