



Final NAVAL AIR STATION ALAMEDA Restoration Advisory Board (RAB) Meeting Minutes

March 17, 2016

www.bracpmo.navy.mil

950 West Mall Square, Alameda City Hall West
Room 140, Community Conference Room
Alameda Point
Alameda, California

The following participants attended the meeting:

Co-Chairs:

Cecily Sabedra Base Realignment and Closure (BRAC) Program Management Office
(PMO) West, BRAC Environmental Coordinator (BEC), Navy Co-Chair

Susan Galleymore Restoration Advisory Board (RAB) Community Co-Chair

RAB Members

Richard Bangert; Carol Gottstein, M.D.; George Humphreys; Bert Morgan; Kurt Peterson; Dale Smith; Jane Sullwold; Jim Sweeney; Michael John Torrey

Community Members/Public Attendees

Julia Larsen, Rob Larsen, Russell Linnett, Steven Michelson

Regulatory Agencies and City

Jim Fyfe, California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC); Yemia Hashimoto, San Francisco Bay Regional Water Quality Control Board (Water Board); Peter Russell, Russell Resources (for City of Alameda); Dan Waligora, California Department of Fish and Wildlife

U. S. Navy

Tony Megliola, Base Closure Manager

Contractors

Yashekia Evans, Tetra Tech, Inc.; Lucas Goldstein, Arcadis; Emily Sheu, Arcadis; Tommie Jean Valmassy, Tetra Tech, Inc.

MEETING SUMMARY

I. Welcome and Introductions

Cecily Sabedra (RAB Navy Co-Chair) called the March 2016 RAB meeting to order and initiated a round of introductions. The agenda is included as [Attachment A](#).

II. Co-Chair Announcements

Ms. Sabedra announced the Navy is finalizing a Finding of Suitability to Transfer (FOST) for portions of property where the Navy's cleanup is complete. Jane Sullwold (RAB member) asked how much property the FOST covers. Ms. Sabedra said the FOST includes 225 acres; however, that number includes the North Housing, which is not part of the Phase 2 Transfer. Only 183 acres will be included in the Phase 2 Transfer to the City.

Susan Galleymore (RAB Community Co-Chair) said that she suggested during the last RAB meeting the idea of discussing with the mayor of Alameda a method of informing future buyers about environmental conditions and restrictions at Alameda Point, possibly by requiring homeowner's associations to be responsible for the information. Ms. Galleymore reached out to the mayor but has not heard back. Ms. Galleymore also spoke to Frank Matarrese, Vice Mayor, and he is interested. Ms. Galleymore will pursue a meeting about the topic with Mr. Matarrese and will report back to the RAB.

III. Community and RAB Comment Period

Ms. Galleymore asked the community members who were attending for the first time how they heard about the RAB meeting. Several members said they attended a tour in 2015, and one person said he saw the notice in the newspaper.

Richard Bangert (RAB member) thanked the Navy for the RAB member site visit held the hour before this meeting. He was pleased to see the vegetation at IR Sites 1 and 2 is sprouting and appears to be a success.

IV. Operable Unit- 2B Groundwater

Ms. Sabedra said the Navy issued the final Record of Decision (ROD) for Operable Unit-2B (OU-2B) dated March 2015. Currently, a remedial design to implement the selected groundwater remedy is being prepared, and that remedial design is the focus of this presentation. Ms. Sabedra introduced Lucas Goldstein (Arcadis) to provide the presentation ([Attachment B](#)).

Mr. Goldstein said OU-2B includes four sites: Sites 3, 4, 11 and 21, and indicated the areas on a map. During the review of the figure on slide 9, Ms. Galleymore asked about the appearance of the buffer zone Mr. Goldstein referenced. Mr. Goldstein said the green area on the figure is the plume, which is at a depth of about 30 feet below ground surface. The buffer area is indicated by a brown line. Ms. Sabedra said the buffer area is a surface delineation of an area around the vertical plume and included special restrictions. Mr. Bangert asked if there will be monitoring wells within the buffer zone, and if the restrictions will include land use controls; Mr. Goldstein confirmed that the buffer area will be monitored and have land use controls.

Mr. Peterson noted that the plume on the figure appears to stop abruptly against the Seaplane Lagoon. He asked about the depth of the plume adjacent to the Seaplane Lagoon. Mr. Goldstein said the plume is at a depth of about 30 feet and noted detections for the monitoring wells nearest the Seaplane Lagoon are at levels below the remedial goals. Ms. Smith said those wells may also be influenced by seawater because they are close to the lagoon. Mr. Goldstein said it is possible that it is a mixing zone.

During the review of slide 10, Mr. Goldstein reviewed a depiction of the plume as presented in the ROD and then an updated depiction of the plume based on additional data. Mr. Humphreys asked if tetrachloroethene (PCE) is a contaminant of concern (COC). Mr. Goldstein confirmed that it is. Mr. Bangert asked about the full list of COCs for the groundwater cleanup. Mr. Goldstein said the

full list is in the ROD; the majority are chlorinated solvents, with the exception of benzene, which is not a chlorinated solvent.

Mr. Humphreys asked about the hot spot labeled “Former Hot Spot 4-2” on slide 10, and asked if it was recently excavated. Mr. Goldstein said the recent excavation was for the area labeled “Building 163 Hot Spot.” The Revised Draft Remedial Design for OU-2B will be issued in May. Mr. Bangert asked if the in situ bioremediation will use cheese whey and vegetable oil, as described in a previous presentation to the RAB on OU-2B plume remediation. Mr. Goldstein confirmed that is the planned design, but the remedial action design/plans have not been finalized.

Ms. Smith asked how methane release will be controlled. Mr. Goldstein said the Navy will monitor and mitigate methane, and details will be in the remedial design document. Mr. Goldstein said the plan for the cleanup is flexible enough to be adjusted based on site conditions during monitoring. Ms. Sabedra added that the project will comply with all air quality standards.

Mr. Peterson said the City’s Site A redevelopment plan includes a waterfront park at Seaplane Lagoon. He is concerned that people will recreate in the water there. Ms. Sabedra said recreational reuse was considered in the human health risk assessment for the site, and there are no restrictions preventing recreational use of the lagoon.

Mr. Humphreys said he is concerned that the COCs deeper than 30 feet below ground surface will migrate toward the surface over a period of time longer than the Navy will be monitoring. Mr. Humphreys said he believes it would be easier for the Navy to conduct the cleanup to the full depth rather than monitor in perpetuity.

Ms. Galleymore asked how often the monitoring wells will be sampled, and whether the frequency would increase if there were a seismic event. Ms. Sabedra said the frequency of monitoring is still to be determined and will be specified in the remedial design document. However, there would be a check of all the remedies in place that may be affected if there were a significant seismic event.

V. Five-Year Review

Ms. Sabedra presented the five-year review update ([Attachment C](#)). A five-year review is a required check on the Navy’s cleanup program for any site where contamination is left in place. The trigger for initiating the five-year review process is the start of remedial action at a site; new reviews are conducted at five-year intervals. All of the sites are on the same schedule. Mr. Humphreys noted the offshore skeet range site with lead shot contamination is not part of the five-year review because no remedial action was taken. Ms. Sabedra said if a site required no further action, it does not need to be reviewed.

Mr. Humphreys noted that the contractor conducting the review must devote an enormous amount of time to assimilate the voluminous documents that support a review. He asked how a contractor who is seemingly new to the project can prepare a comprehensive review. Tony Megliola (Navy) said the Navy has to send the majority of its contracts out to competitive bid, and goes through a bid evaluation process to obtain the best support possible. Ms. Sabedra said the Navy works as a team with its contractor during preparation, with ongoing communication to prepare the best five-year review possible.

VI. Additional Comment Period

Ms. Sabedra asked if there is interest in a site tour this summer. There was affirmative feedback that RAB and community members would like a tour. Mr. Bangert asked if the tour could include

a trip inside Building 5. Ms. Sabedra said the building is currently subject to radiological controls, and it is unlikely access would be permitted by the summer.

Mr. Peterson said he has been concerned about Seaplane Lagoon, especially in relation to discharge from Building 5. The cleanup at Seaplane Lagoon was dredging, which he feels could have been done a decade earlier, since dredging is not new technology. Mr. Peterson said he is not confident that the cleanup is adequate and is concerned the City of Alameda, as the owner, may discover contamination. Ms. Smith said she does not believe that Seaplane Lagoon was ever fully characterized. Ms. Sabedra said the remedial action completed at Seaplane Lagoon was to dredge both corners. That remedial action was based on the protection of ecological receptors and human health of future receptors, including recreational use.

Ms. Smith said she is concerned that propeller turbulence from ferries will affect the Seaplane Lagoon. Mr. Humphreys said he recalls the risk at Seaplane Lagoon being ecological receptors, including fish and least terns. Mr. Humphreys said the Audubon Society conducted a study that showed least terns present at the site 10 percent of the time. The Navy's risk assessment contractor found no risk to least terns that ate fish from the lagoon because they fed from there only one out of every 10 meals. He felt the study did not accurately calculate risk because at least some least terns probably eat all of their meals from the lagoon. He also feels the risk study was of questionable validity because toxicity data for fish at Pearl Harbor were used rather than for local fish.

Ms. Galleymore asked Mr. Peterson what can be done to help him feel that his concerns about Seaplane Lagoon are being addressed. Mr. Peterson said he feels the lagoon is not as clean as it should be, especially the northeast corner, where it is potentially slated for recreational use as a park. Ms. Sabedra said the Navy worked with the regulatory agencies to consider all assumptions about use and exposure, and as a team they agree the conclusions are accurate, the cleanup actions were appropriate, and the remedial action is complete.

VII. Approval of Meeting Minutes and Action Items

The draft final minutes for the January 2016 RAB meeting were reviewed. Ms. Smith provided one minor edit, and the minutes were approved as final pending incorporation of that change. The next RAB meeting will be held at 6:30 p.m. on Thursday, May 12, 2016. The meeting was adjourned at 8:12 p.m.

Action Items:	Action Item Status/ Action Item Due Date:	Initiated by:	Responsible Person:
1. Request for Presentations: a. OU-2B groundwater b. OU-2C soil design	a. Complete b. May 2016	RAB	Navy
2. Provide the Site 1 operations and maintenance plan when completed.	Pending	George Humphreys	Ms. Sabedra

ATTACHMENTS

NAVAL AIR STATION ALAMEDA RESTORATION ADVISORY BOARD MEETING ATTACHMENTS

- A. Naval Air Station Alameda Restoration Advisory Board Meeting Agenda, March 17, 2016 (1 page)
- B. Operable Unit-2B Groundwater (12 slides)
- C. Five-Year Review (9 slides)

RESTORATION ADVISORY BOARD

NAVAL AIR STATION, ALAMEDA

AGENDA

MARCH 17, 2016, 6:30 PM

**ALAMEDA POINT – 950 WEST MALL SQUARE, ALAMEDA CITY HALL WEST
SUITE 140/COMMUNITY CONFERENCE ROOM**

(FROM PARKING LOT ON W. MIDWAY AVENUE, ENTER THROUGH MIDDLE WING)

<u>TIME</u>	<u>SUBJECT</u>	<u>PRESENTER</u>
6:30 – 6:35	Welcome and Introductions	Community and RAB
6:35 – 6:50	Co-Chair Announcements	Co-Chairs
6:50 – 7:20	Community and RAB Comment Period*	Community and RAB
7:20 – 7:50	OU2B Groundwater	Navy Contractor
7:50 – 8:20	Five-Year Review	Navy Co-chair
8:20 – 8:30	Approval of Minutes	RAB
8:30	RAB Meeting Adjournment	

* If there is time at the end of the agenda, additional comments will be taken.



Alameda Point



Operable Unit (OU)-2B Groundwater

Presented by
Lucas Goldstein, P.E., P.G.
Arcadis Project Manager

Restoration Advisory Board (RAB) Meeting
March 17, 2016

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OU-2B Groundwater Topics

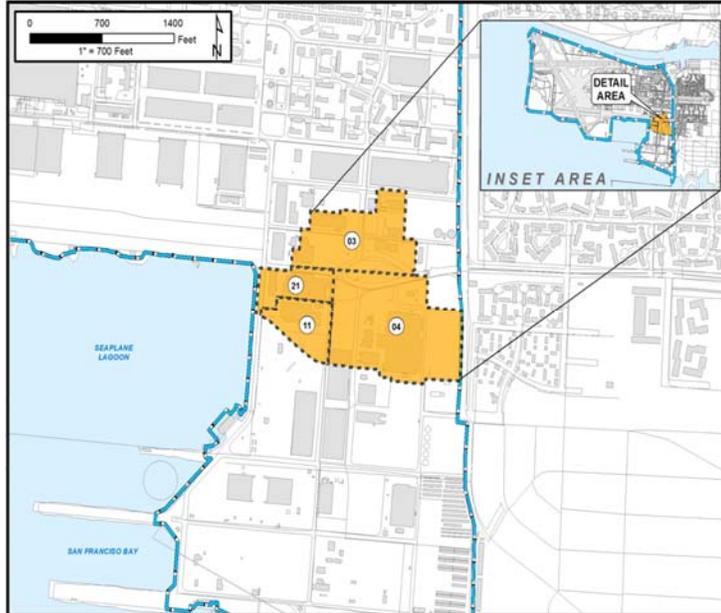


- Background:
 - Location Map and Site Descriptions
 - Record of Decision (ROD) Remedy for Groundwater
 - Land Use Control (LUC) Remedial Design (RD)
- Groundwater RD Update:
 - Clean-up Goals and Depth of Groundwater Treatment
 - Groundwater Treatment Area
- In-Progress Work
- Questions and Comments

2



Background Location Map and Site Descriptions



OU-2B includes Sites 3, 4, 11, and 21:

- Site 3: ~13.4 acres; former fuel storage
- Site 4: ~22.7 acres; former aircraft engine testing and maintenance
- Site 11: ~5.4 acres; former aircraft engine testing and maintenance
- Site 21: ~5.1 acres; former ship and aircraft maintenance

3



Background ROD Remedy for Groundwater



- Final ROD signed May 1, 2015
- ROD requires treatment for volatile organic compound (VOC)-impacted shallow groundwater
- Selected remedy for groundwater includes:
 - In-situ bioremediation (ISB) treatment
 - Groundwater monitoring
 - Institutional controls (ICs) for VOC-impacted shallow groundwater and an adjacent 100-foot buffer area; the buffer area extends into Site 3

4



Background Final ROD – Groundwater VOC Plume

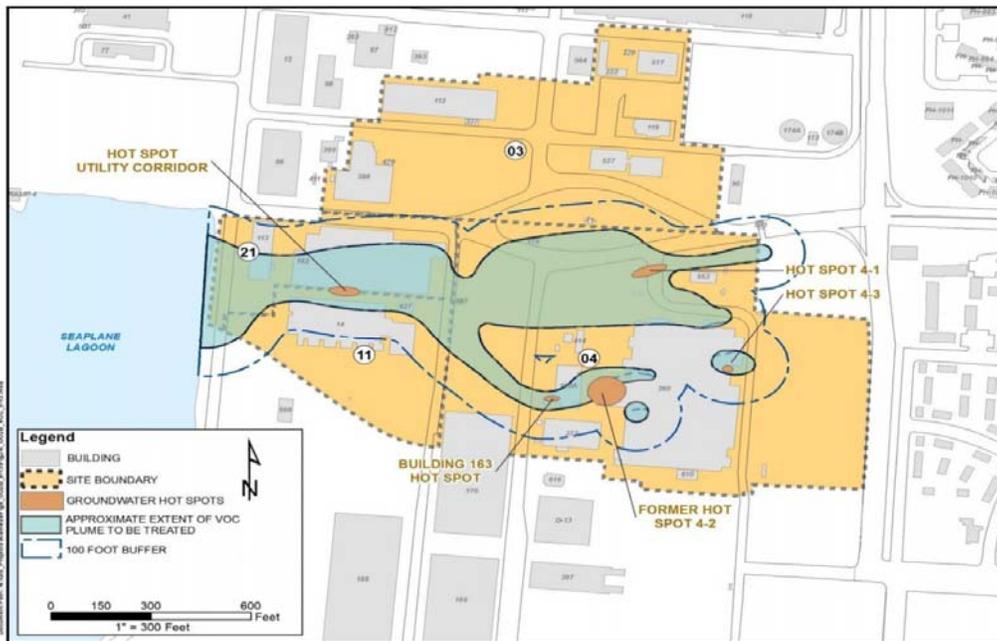


Figure 2-6 Extent of OU-2B VOC Groundwater Plume and Buffer

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Background Remedy for Groundwater and LUC RD



- Final ROD presents approximate extent of VOC plume and preliminary IC restriction boundaries based on information provided in the Feasibility Study (FS) Report (OTIE 2011) and FS Addendum (OTIE 2012)
- Final ROD states that the RD will: [1] finalize the area of groundwater treatment; and [2] refine groundwater IC restriction boundaries
- LUC RD was finalized with the BCT and issued in December 2015, thus facilitating Site 3 property transfer

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RD Update Clean-up Goals and Depth of Treatment



- RD is based on criteria presented in the Final ROD:
 - Final remediation goals (RGs), which are the clean-up goals, for chemicals of concern (COCs) in the groundwater
 - COC drivers for the groundwater treatment include trichloroethene (TCE) and vinyl chloride
 - Active treatment of groundwater to 30 feet below ground surface (bgs) to address vapor intrusion risk
 - Monitoring of groundwater between 30 and 70 feet bgs

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RD Update Groundwater Treatment Area



RD work completed to date includes updating the groundwater treatment/IC boundaries based on:

- 2011 supplemental data gaps groundwater sampling
- 2012 in-situ thermal treatment and ISB treatability study data
- 2013 pre-design groundwater sampling
- Base-wide groundwater sampling through September 2015



2013 pre-design investigation HydroPunch sampling (top) and monitoring well low-flow sampling (bottom).

8



RD Update Groundwater Treatment Area



- BCT concurred with updated IC boundary/treatment area in October 2015
- Updated treatment area will serve as basis for groundwater RD

LEGEND:

- GROUNDWATER INSTITUTIONAL CONTROLS BOUNDARY
- GROUNDWATER TREATMENT AREA (0-30 ft bgs)
- 30 - 70 ft bgs GROUNDWATER ABOVE REMEDIATION GOALS
- OPERABLE UNIT 2B
- IR SITE BOUNDARY
- BUILDING AND BUILDING NUMBER
- ROAD



9

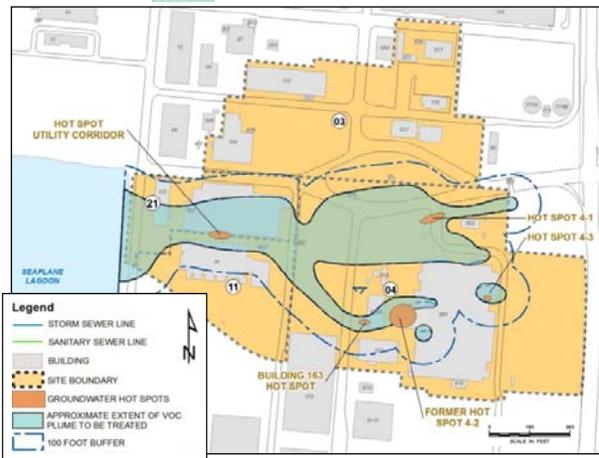


RD Update Comparison of ROD/RD Treatment Area



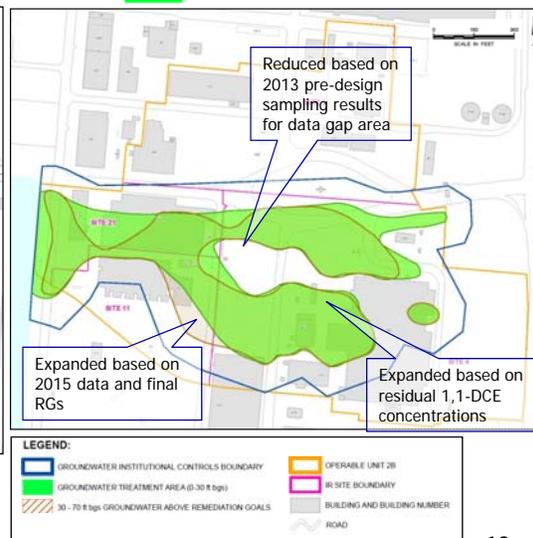
ROD

Groundwater Treatment Area



RD Update

Groundwater Treatment Area



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In-Progress Work



OU-2B RD Status

- OU-2B RD Report (presenting the design approach for the final groundwater remedy) currently in Navy review
- RD will present the details for the bioremediation and groundwater monitoring
- RD includes active treatment of groundwater to 30 feet bgs to address vapor intrusion risk and monitoring of groundwater between 30 and 70 feet bgs
- Revised Draft RD is scheduled to be issued to the BCT and RAB for review in May 2016

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Questions and Comments



Questions and Comments are Welcomed!

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Welcome



Alameda Point Five Year Review

Cecily Sabedra

BRAC Environmental Coordinator – Navy RAB Co-Chair

Restoration Advisory Board Meeting March 17, 2016

1



Purpose of a Five-Year Review



- “The purpose of a five-year review is to evaluate the implementation and performance of the remedy in order to determine if the remedy is or will be protective of human health and the environment.”
 - U.S. Environmental Protection Agency

2



Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)



3



Steps in a Five-Year Review



1. Review key documents: decision documents, Remedial Action Objectives, monitoring & maintenance reports, technical memos
2. Assess contaminant levels: Review remedy and analyze data on each contaminant
3. Conduct interviews and site inspections: May involve site workers and community members
4. Write report: Assess whether remedies are protective

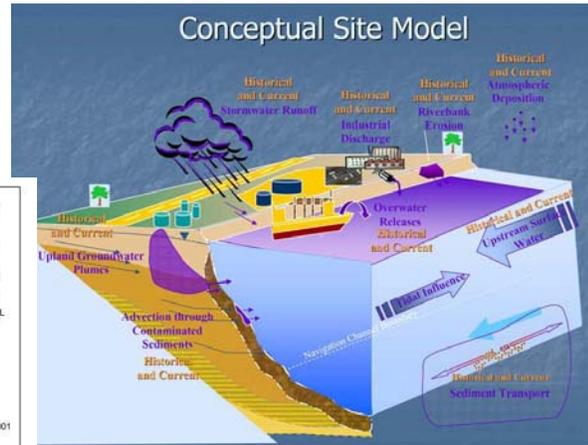
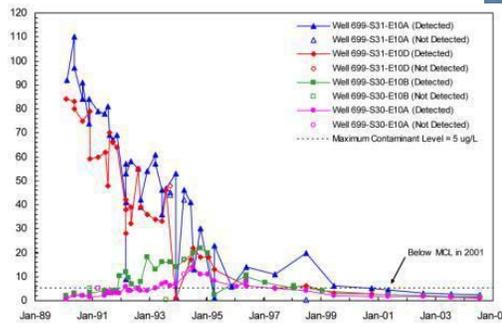
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Finding and Interpreting Key Information



- Protectiveness statements
- Issues and recommendations
- Technical assessment
- Maps and graphs



5



Technical Assessment



- Question A – *Is the remedy functioning as intended by the decision documents?*
- Question B – *Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid?*
- Question C – *Has any other information come to light that could call into question the protectiveness of the remedy?*

6



Is the Remedy Protective?



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



Site 1 Wetland

Example: Protective

"The remedy at OU-X is protective of human health and the environment. The ICs at this site prevent exposure to soil contaminants at depth and beneath the hardscape."



Alameda Five-Year Review



Draft Alameda Five-Year Review: April 2016

Sites in this Five-Year Review:

- OU-1, IR Sites 6 and 16
- OU-1 IR Site 14
- OU-2A, IR Sites 9, 13, & 19
- OU-2B, IR Site 3
- OU-3, IR Site 1
- OU-4A, IR Site 2
- OU-4B, IR Site 17
- OU-5, IR Site 25
- OU-6, IR Site 26
- OU-6, IR Site 27
- OU-6, IR Site 28
- OU-5/FISCA, IR Site 02 Groundwater
- FISCA, IR Site 02 Soil
- Marsh Crust



Questions?



For more information:

- EPA maintains a website with information about Five-Year Reviews at Federal Facilities:

<https://www.epa.gov/fedfac/five-year-review-federal-facility-cleanups>