



FINAL FORMER MARINE CORPS AIR STATION (MCAS) TUSTIN 102nd Restoration Advisory Board (RAB) Meeting Summary 24 March 2016



Meeting Location: Tustin Senior Center, 200 South C Street, Tustin, California
Meeting Date/Time: 24 March 2016/7:08 PM to 8:35 PM
Summary Prepared by: Tony Guiang, Accord MACTEC 8A Joint Venture (AM8AJV)

M62535_001300
MCAS TUSTIN
SSIC NO. 5090.3.A

Attachments:

Presentation Slides:

- Installation Restoration Program Statutory Third Five-Year Review Former MCAS Tustin, Tustin, California

Attendees: A total of 17 people were in attendance for the Former MCAS Tustin RAB meeting:

Navy: Jim Sullivan, Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) and RAB Co-Chair; and Alex Bollweg Navy Remedial Project Manager (RPM).

Regulatory Agencies: Patricia Hannon, Regional Water Quality Control Board, Santa Ana Region (RWQCB); and Rafat Abbasi, Department of Toxic Substances Control (DTSC).

RAB Members: Desire' Chandler, RAB Community Co-Chair; Mary Lynn Norby; Robert Kopecky; Susan Reynolds; and Don Zweifel.

Other Attendees: Harry Takach, Pacific States Environmental Contractors, Inc.; Shawn Yauari, Environ; D. Todd Schmieder, Tait Environmental; Rafik Albert, EPD Solutions; Peggy Falcon, Community Member; Lansana Coulibaly, MMEC Group; Tony Guiang and Teresa Toye, AM8AJV.

WELCOME/INTRODUCTIONS/AGENDA REVIEW:

Mr. Jim Sullivan (Base Environmental Coordinator [BEC] and Navy RAB Co-Chair) welcomed everyone to the 102nd Former MCAS Tustin RAB meeting and thanked everyone for attending. Mr. Sullivan asked for self-introductions from those in attendance.

Mr. Sullivan presented the General Slides, which included the RAB Meeting Agenda, point-of-contact information for the MCAS Tustin BCT team (Navy, United States Environmental Protection Agency [U.S. EPA], RWQCB, and DTSC), information and contact information for the Administrative Record, environmental websites, the schedule for the next RAB Meeting, and the procedures for review of RAB Meeting Summaries.

To augment the discussion of environmental websites, Ms. Desire Chandler, RAB Community Co-Chair, explained that the websites functioned as databases that help the RWQCB and DTSC keep track of environmental cleanup activities occurring on any property, either federal or non-Department of Defense (DoD). These websites are open for public viewing.

Mr. Sullivan reminded everyone that the BRAC office has relocated and although all email addresses have remained the same, phone numbers have changed. Mr. Sullivan stated he received excused absences from Mr. Matt West and Mr. John Edwards (RAB Members).

Mr. Sullivan asked the agencies to provide the Regulatory Agency update.

REGULATORY AGENCY UPDATE:

Mr. Rafat Abbasi (DTSC)

Mr. Rafat Abbasi introduced himself to the RAB. He provided a brief history of the various roles he held at DTSC, including Project Manager (PM) for MCAS El Toro in late 1990. Prior to that date, he was the PM for Naval Air Station North Island (NASNI). He explained that over the past months he has been reviewing the Neighborhood E Site Investigation (SI) Report. Results from the Neighborhood E SI support a No Further Action (NFA) determination for Neighborhood E. He explained that, upon review, the DTSC concurred with the NFA determination for the site.

Ms. Mary Lynn Norby, RAB member, asked Mr. Abbasi to reiterate the DTSC stance on the NFA. Mr. Abbasi confirmed that the results of the SI supported a NFA determination for the site.

Ms. Patricia Hannon (RWQCB)

Ms. Patricia Hannon noted that several documents were submitted to the RWQCB for review since the last RAB Meeting in September 2015. She listed the documents she reviewed: Neighborhood E SI; Operating Properly and Successfully (OPS) Demonstration Report for Operable Unit (OU)-4B sites, which comprise the moderate concentration sites (Installation Restoration [IR] Sites 5S[a] and 6) and the mingled plumes area (MPA); 2015 semiannual data update; and draft Annual Performance Evaluation Report for the moderate concentration sites. Ms. Hannon explained that the RWQCB arrived at the same conclusion as the DTSC and concurred with the NFA determination for Neighborhood E; she had no comments on the other documents she reviewed.

Mr. Don Zweifel asked whether there were any increases in contaminant concentrations at any of the low concentration sites. Ms. Hannon replied that the Navy was currently monitoring a well (I011MW01S) at IR Site 11 where an increase in the trichloroethylene (TCE) concentration (13 micrograms per liter ($\mu\text{g}/\text{L}$) was detected in August 2013, which is above the maximum contaminant level (mcl). She explained that the concentration has since decreased to 11 $\mu\text{g}/\text{L}$ and will continue to be monitored. To augment, Mr. Sullivan explained that the sites that no longer require remediation continue to be monitored and that, through monitored natural attenuation (MNA), contaminant concentrations continue to decrease over time.

Ms. Norby asked what operations took place at Neighborhood E before transfer to the City of Tustin (City) occurred. Ms. Hannon replied there were buildings onsite used for maintenance operations. She explained that although petroleum was the main concern at Neighborhood E, TCE was detected in the groundwater. Mr. Sullivan added that the City requested the Navy return to Neighborhood E to address the alleged TCE detections in groundwater, encountered

during grading activities. The Navy returned to the site and conducted an SI, which included three rounds of quarterly groundwater monitoring at the site.

Upon completion of the Regulatory Agency Update, Mr. Sullivan invited Mr. Alex Bollweg (Navy RPM) to provide the presentation of the evening.

PRESENTATION:

Installation Restoration Program Statutory Third Five-Year Review Former MCAS Tustin, Tustin, California

Mr. Bollweg introduced himself as the Navy RPM for the MCAS Tustin Five-Year Review.

Slide 1 – Presentation title.

Slide 2 – Presentation overview. Mr. Bollweg provided a brief summary of the topics covered in the presentation.

Slide 3 – Presents the purpose and objective of the Five-Year Review. Mr. Bollweg explained that the objective for conducting the Five-Year Review at MCAS Tustin was to evaluate the performance of the remedies in place and to determine whether the remedies remain protective of human health and the environment.

Slide 4 –Mr. Bollweg provided an explanation of the trigger date which initiated the current Five-Year Review. He provided a brief history of the previous Five-Year Reviews conducted at MCAS Tustin. He explained that the first Five-Year Review completed in 2006 included OU-3 and the second Five-Year Review completed in 2013 included OU-3, OU-1A, and OU-1B North and South. In addition, a Five-Year Review Addendum was completed in 2013 to address vapor intrusion (VI) risks at OU-1A and OU-1B South. The Addendum also presented protectiveness determinations for the OU-4B low concentration sites. Mr. Bollweg noted that the current Five-Year Review is the third review for MCAS Tustin and will include OU-3, OU-1A, OU-1B North and South, and OU-4B (low and moderate concentration sites).

Mr. Bollweg introduced Mr. Lansana Coulibaly (MMEC Group) to provide a description of the sites and the Five-Year Review process. Mr. Coulibaly introduced himself and explained that the MMEC Group, which comprises AMEC Foster Wheeler and their joint venture KMEA, is the subcontractor supporting the Navy in preparing the Five-Year Review.

Slide 5 – Figure showing the locations of OU-1A, OU-1B North and South, OU-3, and OU-4B (low and moderate concentration sites). These are the sites included in the Third Five-Year Review for MCAS Tustin.

Slide 6 – Provides a background summary for OU-1A (IRP-13s) and OU-1B (IRP-3, IRP-12). Mr. Coulibaly provided a summary of the remedy documented in the Record of Decision (ROD) for OU-1A and OU-1B that includes a NFA for soil and hydraulic containment and hot-spot removal, institutional controls (ICs), and performance monitoring for groundwater. He also listed the primary chemicals of concern (COCs) in groundwater and the status of the Navy's environmental cleanup at the sites.

Slide 7 – Provides a background summary for OU-3 (IRP-1). Mr. Coulibaly provided a summary of the remedy documented in the ROD for OU-3 that includes a steel-reinforced concrete containment wall, ICs, and performance monitoring for groundwater. He also listed the primary COCs in groundwater (chlorinated solvents and metals). He noted that long-term monitoring (LTM)/operations and maintenance (O&M) continue at the site.

Slide 8 – Provides a background summary for OU-4B (low [IRP-11, IRP-13W] and moderate [IRP-5S(a), IRP-6, MPA] concentration sites). Mr. Coulibaly explained that the OU-4B moderate concentration site is the newest site included in this Five-Year Review. OU-4B (low concentration site) was included in the 2013 Five-Year Review Addendum. Mr. Coulibaly listed the primary COCs in groundwater at OU-4B. He explained that low concentration sites are sites where contaminants have been detected at concentrations less than 20µg/L and moderate concentration sites are sites where contaminants have been detected at concentrations greater than 20µg/L. He also listed the primary COCs in groundwater at both the low and moderate concentration sites.

Mr. Zweifel expressed concern about the concentrations detected at the moderate concentration sites. Ms. Hannon explained that although the concentrations in the moderate concentration sites are four times greater in magnitude than the mcl of 5µg/L for TCE, the moderate concentration sites are not only being monitored but also remediated.

Slide 9 – Provides a background summary for OU-4B (low and moderate concentration sites) Mr. Coulibaly provided a summary of the remedy documented in the ROD for OU-4B, which includes NFA for soil and ICs for the low concentration sites. For the moderate concentration sites, the remedy is in-situ bioremediation, MNA, performance monitoring, and ICs.

Mr. Sullivan noted that the Operating Properly and Successfully (OPS) determination for the low concentration sites was obtained from EPA in 2015 and the OPS determination for the moderate concentration sites was obtained February 2016.

Slide 10 – Presents a diagram of the six components of the Five-Year Review Process. Mr. Coulibaly explained each of the components, which include community involvement, document review, data review and analysis, site inspections, interviews, and an assessment of the protectiveness of the remedy. Upon completion of the first five components, Mr. Coulibaly explained that a determination will be documented about whether the remedies in place continue to be protective of human health and the environment.

Mr. Zweifel asked who would be included in the list of interviewees for the interview process. Mr. Coulibaly replied that typically stakeholders including Regulatory Agencies, City staff, and the RAB Co-Chair would be on the list of interviewees. Mr. Zweifel asked whether all RAB members would be included in that list. Mr. Sullivan replied that individual RAB members who would like to be interviewed could be added to the list. Mr. Zweifel requested that his name be added to the list.

Slide 11 – Presents a list of the types of documents reviewed in support of the Five-Year Review.

Slide 12 – Lists the types of data used in the technical analyses and protectiveness statement determinations. The data used include sampling results, remedial system performance, risk assessments, and land use control compliance information.

Mr. Zweifel asked whether there would be a restrictive deed on the southernmost hangar. Mr. Sullivan replied that when the Navy transfers the property, there would be restrictive covenants on the property that both the Navy and the Regulatory Agencies would have agreed upon.

Slide 13 – Describes the site inspection and interview components. Mr. Coulibaly noted that the site inspections were scheduled to take place in April 2016 to visually confirm the current conditions of the remedy, the site, and the surrounding area. The slide also lists the interviewees to support the Five-Year Review.

Slide 14 – Describes the protectiveness assessment that is one of the six key components in the Five-Year Review Process. Mr. Coulibaly explained that to arrive at a protectiveness assessment for the sites, three questions are used as decision points:

- “Is the remedy functioning as intended?”
- “Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives still valid?”
- “Has any other information come to light that could call into question the protectiveness of the remedy?”

Mr. Bollweg presented the remainder of the presentation.

Slide 15 – Describes the community involvement and notification component of the Five-Year Review Process. Mr. Bollweg explained that the Final Five-Year Review document will be completed by October 2016 and will be made available to the public in the Information Repository (IR).

Slide 16 – Provides the schedule for the Five-Year Review.

Slides 17 and 18 – Questions and acronyms, respectively. Mr. Bollweg asked the RAB whether they had any questions or comments.

Mr. Zweifel requested more information on the hydraulic containment and hot spot removal selected in the 2004 ROD for OU-1A and OU-1B. He asked how the containment was implemented and what water-bearing zone was targeted. Mr. Coulibaly explained that treatment of the aquifer at OU-1A and OU-1B has been in place since 2007 and targets the first water bearing zone. Soil removal was implemented first to ensure that no infiltration of contaminants could impact the aquifer. He explained that details of the remedy and subsequent monitoring are outlined in a Work Plan and Sampling and Analysis Plan (SAP), which was approved and concurred upon by the Regulatory Agencies before the remedy was implemented. Mr. Sullivan explained that the intent of the evening’s presentation was to inform the RAB and community that the Five-Year Review for these sites has started. Further, the Five-Year Review will include a thorough review of all reports associated with the site and these reports are available to the public through the IR or by access to the BRAC website.

Mr. Shawn Yavari (Environ) asked for further clarification about who would be allowed to participate in the interview process. Mr. Sullivan replied that the Navy prepared a list of key persons who are directly involved or have knowledge of the sites. This list includes stakeholders including the Community College district, Regulatory Agency representatives, Navy contractors, and, as mentioned earlier, the RAB Community Co-Chair.

Ms. Norby noted that it would be appropriate for the RAB members to participate in the site inspections scheduled for next month, either after the official site inspections are conducted or in conjunction with the April 2016 inspections. She explained that participation would allow the RAB members to visually confirm the current condition of the sites. Ms. Chandler agreed with Ms. Norby's request to allow RAB participation during the site inspections, especially in light of the current development occurring at MCAS Tustin. Mr. Robert Kopecky (RAB member) also concurred, adding that, from a community perspective, it would be good for the community to know that the RAB members were allowed to verify current site conditions.

ENVIRONMENTAL PROGRAM UPDATE

Mr. Sullivan provided a brief status of properties currently owned by the Navy. He referenced the MCAS Tustin Carve Out (CO) poster board displayed in the meeting room. He explained that COs refer to property still owned by the Navy and noted that all COs with the exception of portions of CO-5 are currently leased. He noted that since the Navy received the OPS for the Moderate Concentration Sites, the Navy has started the property transfer process for CO-2 and CO-9 and both COs should be transferred by 2017.

Mr. Sullivan opened the floor for additional questions and comments.

Ms. Peggy Falcon (Community Member) asked whether groundwater from Neighborhood E was safe to drink. Ms. Hannon stated that in Neighborhood E, the first water bearing zone was where contaminants were detected. This first water bearing zone is very saline, has never been a source for drinking water in the area, and has never been safe to drink. She explained that the principal aquifer is the deepest of water bearing zones from which water districts extract their water and that water is not contaminated. Mr. Abassi agreed that the shallower water is not and has never been a source of drinking water. Ms. Chandler asked whether the developers will be made aware of any land use restrictions at Neighborhood E. Mr. Sullivan replied that land use restrictions are documented in the deed.

Ms. Falcon asked whether high sulfate concentrations were detected in soil at Neighborhood E. Ms. Hannon replied that the results from the Neighborhood E SI recommended NFA for soil.

Ms. Norby asked whether the Navy had any information on the activities that will take place at the current location of the Army Reserve organization after it relocates. Mr. Sullivan replied that the City could best provide an answer to that question, but he noted that the current location of the Army Reserve would be redeveloped by the City after the Reserve moves. Ms. Norby asked whether the Army Reserve would be moving to a location on base. Mr. Sullivan replied that the new location would be somewhere off Warner Boulevard.

Mr. Todd Schmieder (Tait Environmental) asked about the transfer status for the portion of CO-5 to be transferred to the college. Mr. Sullivan explained that in the Five-Year Review

Addendum, a VI evaluation was conducted and as a result the Navy began preparing an Explanation of Significant Differences (ESD) to augment the ROD, and also prepared a draft LUC amendment. The Navy is working with the Regulatory Agencies and the City to move those documents forward. Once the documents are finalized, this will pave the path for transferring the property. Mr. Schmieder asked when the Navy expects to complete the plans for the VI study. Mr. Sullivan replied that the Navy is looking to begin the fieldwork sometime in mid-2016. Mr. Schmieder requested that the Navy provide an update on the VI study at the next RAB meeting. Mr. Sullivan noted because the next meeting is in September 2015, an update could definitely be provided.

Mr. Zweifel requested that the RAB be notified when decisions such as concurrence from the Regulatory Agencies on documents were available. Ms. Hannon replied that the public can view all the documents reviewed by the Regulatory Agencies, including comments, on the websites provided during the General Slide presentation. Ms. Hannon said that the DTSC has their comments on their Envirostor website.

Ms. Norby asked what issue prompted the Navy to return to OU-1A and OU-1B South to conduct a VI evaluation. Mr. Sullivan replied that the toxicity values of TCE had changed since the last Five-Year Review completed in 2011. As a result, a VI evaluation was conducted at the sites and the results were documented in the Five-Year Review Addendum completed in March 2013. Mr. Sullivan explained that this was a good example where the Navy had to reassess the protectiveness assessment for the site based on one of the three driving questions in Slide 14 of the RAB presentation, specifically, "Are the exposure assumptions, toxicity data and Remedial Action Objectives used at the time of the remedy still valid?" Mr. Sullivan noted that the review process facilitates having to go back to re-evaluate a site to determine whether the remedy is protective of human health and the environment.

MEETING EVALUATION/ FUTURE TOPICS / SCHEDULE FOR NEXT RAB MEETING AND CLOSING

A discussion to schedule a site tour took place. Ms. Susan Reynolds (RAB member) suggested that the site tour take place before the interview process. Mr. Kopecky requested the Navy to send an email with a few proposed weekday dates in April 2016. Ms. Norby asked when the April 2016 site inspections would be taking place. Mr. Sullivan replied that the site inspection will take place on April 7, 2016.

Future topics for the next scheduled RAB meeting include the Five-Year Review, an update on the VI study, and an update on the CO- 5 and CO-6 property transfer.

In closing, Mr. Sullivan thanked everyone for attending the 102nd Former MCAS Tustin RAB meeting and stated that he looks forward to seeing everyone in September 2016 for the 103rd meeting.

The RAB meeting adjourned at 8:35 PM.

LIST OF HANDOUTS PROVIDED AT THE MEETING:

- 24 March 2016 Former MCAS Tustin RAB Meeting Agenda

- Presentation Slides: “Installation Restoration Program Statutory Third Five-Year Review Former MCAS Tustin, Tustin, California”
- RAB Mission Statement and Operating Procedures
- Former MCAS Tustin RAB Fact Sheet/Membership Application
- Former MCAS Tustin Mailing List Coupon

Copies of the meeting summaries and handouts are available at the IR for Former MCAS Tustin located in the Government Publication Section of the University of California at Irvine, Ayala Science Library, in Irvine, California. Library hours are 10:00 AM to 8:00 PM Monday through Thursday; 10:00 AM to 5:00 PM Friday; and 1:00 PM to 5:00 PM on Saturday and Sunday. The library phone number is (949) 824-7362 or (949) 824-6836. Copies of the meeting summaries and handouts are also available in the CERCLA AR File.

Final Summaries from previous RAB meetings can be found on the internet at the Navy BRAC Program Management Office (PMO) website: www.bracpmo.navy.mil.

INTERNET SITES:

Navy and Marine Corps Internet Access: BRAC PMO website (includes RAB meeting summary): <http://www.bracpmo.navy.mil/>

Department of Defense – Environmental Cleanup Home Page Website:

Homepage: <http://www.dtic.mil/envirodod/>

U.S. EPA:

Homepage: www.epa.gov

Superfund information: www.epa.gov/superfund

National Center for Environmental Assessment: www.epa.gov/ncea

Federal Register Environmental Documents: www.epa.gov/federalregister

California Agencies:

California Environmental Protection Agency Homepage: www.calepa.ca.gov

DTSC: www.dtsc.ca.gov

Department of Health Services: www.cdph.ca.gov

Santa Ana RWQCB: www.waterboards.ca.gov/santaana

Additional Websites: Reuse and Redevelopment

City of Tustin: www.tustinlegacy.com



Installation Restoration Program Statutory Third Five-Year Review Former MCAS Tustin, Tustin, California

Restoration Advisory Board (RAB) Meeting, March 24, 2016
Alex Bollweg, Navy (Remedial Project Manager [RPM])
**Lansana Coulibaly, PE (AMEC Foster Wheeler, Senior
Technical Manager)**

Presentation Overview



Purpose and Objective

Background

Former MCAS Tustin Five-Year Review Sites

Five-Year Review Process

- Document Review
- Data Review
- Site Inspections
- Interviews
- Protectiveness
- Community Involvement

Schedule

Questions

Purpose and Objective of Five-Year Review



Purpose

- Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the lead federal agency (United States Department of the Navy [DON]) is required to review the progress of CERCLA remedies where hazardous substances remain on site at levels that do not allow for unlimited use and unrestricted exposure. This must be done at a minimum frequency of five years but may be done more often if warranted.

Objective

- The fundamental objective of the Five-Year Review is to evaluate the performance of a remedy to determine whether it remains protective of human health and the environment.

Trigger Date for Five-Year Reviews

- Under DON policy, the five-year review schedule is triggered by the initiation of the first remedial action that leaves hazardous substances, pollutants or contaminants on site at levels that do not allow for unlimited use and unrestricted exposure.
- After completion of the Statutory Five-Year Review, the trigger for subsequent reviews is the signature date of the previous Five-Year Review Report:
 - First Five-Year Review (2006): Operable Unit (OU) -3
 - Second Five-Year Review (2011): OU-3, OU-1A, OU-1B North, OU-1B South
 - 2013 Five-Year Addendum OU-4B (low concentrations sites)
 - 2013 OU-1A, OU-1B South
 - Third Five-Year Review (2016): OU-3, OU-1A, OU-1B North, OU-1B South, OU-4B (low and moderate concentration sites).

Former MCAS Tustin Five-Year Review Sites



Legend

- 1,1-Dichloroethene (1,1-DCE)
- Trichloroethene (TCE)
- 1,2,3-Trichloropropane (1,2,3-TCP)
- Carve-Out (CO)-2
- CO-5
- CO-6
- CO-9
- Former MCAS Tustin Boundary

Date of Aerial Photograph: 2013

MAP NOT TO SCALE

Notes:

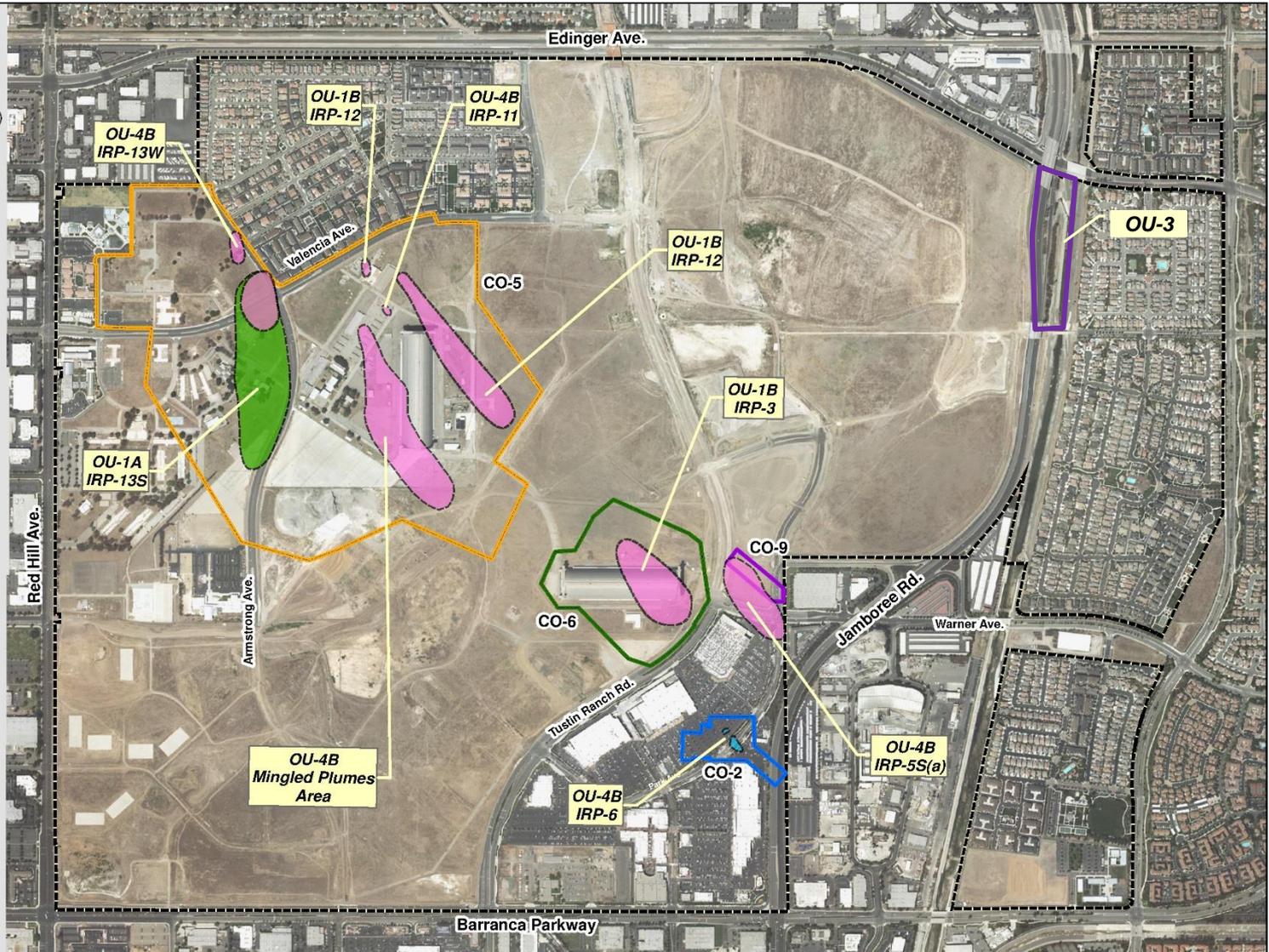
Plumes show approximate extent of chemicals of concern in first water bearing zone groundwater at concentrations exceeding remediation goals.

Remediation Goals:

- TCE- 5 micrograms per liter (µg/L)
- 1,2,3, TCP - 0.5 µg/L
- 1,1-DCE - 6 µg/L



**Former MCAS Tustin
Carve-Out Areas and
Groundwater Plumes
January 2015**



- **OU-1A (IRP-13S) and OU1-B (IRP-3 and IRP-12)**

- **2004 Records of Decision (RODs)**

- Soil: No Further Action (NFA)
 - Groundwater: Hydraulic Containment with Hot-Spot Removal
 - Institutional Controls (Ics)
 - Performance Monitoring

- **Primary Chemicals of Concern (COCs) in Groundwater**

- OU-1A (IRP-13S)
 - 1,2,3-Trichloropropane (1,2,3-TCP)
 - Trichloroethene (TCE)
 - OU-1B North (IRP-12)
 - TCE
 - OU-1B South (IRP-3)
 - TCE

- **Current Status**

- Ongoing Long-Term Monitoring/Operation & Maintenance (LTM/O&M)

- **OU-3 (IRP-1)**

- **2001 ROD Remedy**

- Steel-reinforced concrete containment wall
 - Performance monitoring
 - ICs

- **Primary COCs in Groundwater**

- 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichlorobenze, 1,4-dichlorobenzene, benzene, chlorobenzene, TCE, Vinyl Chloride (VC), and metals (antimony, arsenic, cadmium, manganese, molybdenum, and thallium)

- **Current Status**

- Ongoing LTM/O&M

Former MCAS Tustin Five-Year Review Sites



- **OU-4B (IRP-5S(a), IRP-6, IRP-11, IRP-13W, and Mingled Plumes Area [MPA])**
 - **Primary COCs in Groundwater**
 - Low Concentration (<20 micrograms per liter [$\mu\text{g}/\text{L}$]) Sites (IRP-11, IRP-13W)
 - TCE
 - Moderate Concentration (>20 $\mu\text{g}/\text{L}$) Sites (IRP-5S[a], IRP-6, MPA)
 - TCE
 - 1,1-DCE (only IRP-6)

- **OU-4B (continued)**

- **2010 ROD Remedy Components**

- NFA for Soil at All Sites

- Low Concentration Sites

- ICs

- Moderate Concentration Sites

- In situ bioremediation via substrate injections

- Monitored natural attenuation

- Performance monitoring

- ICs

- **Current Status (Low & Moderate Concentration Sites)**

- Ongoing LTM/O&M

Five-Year Review Process



Figure 1: Components of the Five-Year Review Process

Document Review

Types of documents that will be reviewed (as applicable):

- Records of Decision (RODs)
- Remedial Design (RD) /Remedial Action Work Plan (RAWP)
- Interim Remedial Action Completion Report (IRACR)
- LTM/O&M Plans
- Operating Properly and Successfully (OPS) Demonstration Reports
- Annual Performance Evaluation Reports
 - Land-Use Control (LUC) Compliance Documents

Data Review and Analysis

The following types of data form the primary basis for the technical analysis and subsequent protectiveness determination:

- Sampling and monitoring data
- Remedial system performance data
- Risk assessment data
- LUC compliance data

Site Inspections

- The Navy will conduct site inspections in April 2016 to gather information about each site's current status and to visually confirm and document the conditions of the remedy, the site, and the surrounding area.

Interviews

Interview forms will be sent to the following stakeholders in April 2016

- Agency Representatives
- O&M Contractor Personnel
- RAB Co-Chair
- Other Stakeholders

Assess Protectiveness

- A technical assessment 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?

Community Involvement and Notification

- Per DON policy, the Restoration Advisory Board (RAB) is the primary vehicle for community involvement:
 - RAB Meetings
 - Notification in RAB Public Meeting Agenda.
- BRAC website Public Notice
- Solicit input
- Notify Public of completion of Five-Year Review
- Make the report available at the Information Repository

Site Inspections and Interviews – April 2016

Issue Draft Five-Year Review – June 2016

Regulatory Review – June 2016-August 2016

Final Five-Year Review scheduled for October 2016

Questions



Acronyms



µg/L	micrograms per liter
BRAC	Base Realignment and Closure
CERCLA	Comprehensive, Environmental Response, Compensation, and Liability Act
COC	Chemical of Concern
DON	United States Department of the Navy
EC	engineering control
IC	institutional control
IRP	Installation Restoration Program
LTM	long-term monitoring
LUC	land use control
MPA	Mingled Plumes Area
NFA	no further action
O&M	operation and maintenance
OU	Operable Unit
RAB	Restoration Advisory Board
RACR	Remedial Action Completion Report

Acronyms (continued)



ROD	Record of Decision
TCE	Trichloroethene
VOC	Volatile Organic Compound

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