



TETRA TECH EM INC.

January 5, 2010

Dear RAB Members,

On behalf of the Navy, enclosed please find the August 5, 2009 final RAB meeting minutes for your information and records.

If there are any questions regarding the enclosed minutes, please contact Carolyn Hunter at (510) 302-6297 or Carolyn.hunter@tetratech.com.

Sincerely,

Carolyn Hunter
Community Relations Specialist
Tetra Tech EMI

FINAL
MEETING MINUTES
RESTORATION ADVISORY BOARD
INLAND AREA ENVIRONMENTAL RESTORATION PROGRAM
FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD
CONCORD, CALIFORNIA
AUGUST 5, 2009

These minutes reflect general issues raised, agreements reached, and action items identified at the Restoration Advisory Board (RAB) meeting for the Inland Area Environmental Restoration (ER) Program at the Former Naval Weapons Station Seal Beach Detachment Concord (NAVWPNSTA Concord), California. The meeting was held from 6:00 p.m. to 7:45 p.m. on August 5, 2009, at the Concord Police Station in Concord, California. Agreements and action items are described by topic under Sections I through VI and are summarized in Section VII. A list of participants and their affiliations is included as Attachment A, and the meeting agenda is included as Attachment B. Handouts at the meeting also are included as attachments to these minutes.

I. WELCOME, INTRODUCTIONS, PUBLIC COMMENT, AND AGENDA APPROVAL

Welcome and Introductions

The RAB Community Co-Chair, Mary Lou Williams (Concord resident), called the RAB meeting to order and initiated a round of introductions for attendees. John Kaiser (San Francisco Bay Regional Water Quality Control Board [Water Board]) sat in for Alan Friedman (Water Board). New attendee Paul Choisser, a Concord resident, will be reporting to the Concord Naval Weapons Station (CNWS) Neighborhood Alliance and will be attending regularly. Kathy Stewart (Base Realignment and Closure Program Management Office [BRAC PMO] West) introduced herself as the new Navy RAB Co-Chair. Ms. Williams welcomed all new and familiar faces to the RAB meeting.

Public Comments

Ms. Williams opened the floor to public comments. No comments were received.

II. JUNE 2009 RAB MEETING MINUTES APPROVAL

Ms. Williams asked the RAB for comments on minutes from the RAB meeting held on June 3, 2009. No comments were received. The Navy will finalize the minutes and distribute them to the RAB.

Action Item

1. The Navy will finalize and distribute the RAB meeting minutes for June 3, 2009.

III. RAB ANNOUNCEMENTS

Ms. Williams and Ms. Stewart opened the floor to RAB announcements. Ms. Stewart stated she was looking forward to her role as the Navy Co-Chair for the RAB and provided some background on herself. She stated her previous assignment was with the BRAC Program Management Southeast Office, serving as a BRAC Environmental Coordinator on the East Coast.

RAB Open Comment Period

Cindy Welles (Clyde resident) said Clyde held its first Natural Night Out Event. The event was well attended by the community. Community members showed an interest in the activities at the Inland Area. Ms. Welles handed out RAB applications during the event.

Ms. Williams announced she no longer has a computer and asked to have all pertinent information sent to Carolyn Hunter (Tetra Tech EM Inc. [Tetra Tech]), who will forward it to her by mail.

Phillip Ramsey (U.S. Environmental Protection Agency [EPA] Remedial Project Manager [RPM]) inquired if anyone present had attended or knew about the commemoration of the Port Chicago Memorial.

Mr. Kaiser said the Mare Island Shoreline Heritage Preserve, formerly the U.S. Navy's first Naval Ammunition Depot, will be hosting the Second Annual "Mare Faire" on August 8 and 9, 2009. The event will commemorate the 65th anniversary of the Port Chicago Mutiny, an important event in American history. Mr. Kaiser would provide the web link to Tommie Jean Valmassy (Tetra Tech), who will forward it to the meeting attendees. The link is provided below:

www.mareislandpreserve.org/MareIslandPreserve/Welcome.html

Edi Birsan (Concord resident) expressed the concerns of the community about clear cutting two large stands of trees within 50 feet of the fence line on Navy property near the Dekinnger area. The trees were planted in the 1970s by the U.S. Forest Service on an experimental basis and have been left unmaintained. The trees are being cut because they present a fire hazard to the adjacent neighborhood. The community is interested in more details on cutting the trees. Ms. Stewart said that the tree cutting was not in the scope of RAB; however, she would pass on the information to the appropriate contact.

Mr. Birsan asked why the trees of concern are not part of the site's green assets for restoration. Charles Perry (Navy Lead RPM) answered by noting the restoration within the purview of the RAB is part of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Ms. Stewart added the primary focus for these meetings are the cleanup aspects and that the meetings do not encompass all environmental issues.

Kent Fickett (Mt. Diablo Audubon Society) wanted to know who would be responsible for this

issue. Ms. Stewart said the U.S. Forest Service (which originally planted the trees in 1973) provided the BRAC office a work plan for review. The Contra Costa County fire chief was also provided a copy for review. Once the work plan has been reviewed, it will be passed on to the City of Concord to be discussed between the City of Concord and community members.

Ms. Williams asked about the rationale for cutting. Mr. Fickett responded that it was to create a fire lane and minimize a potential fire hazards posed by the overgrown eucalyptus.

Mr. Choisser wanted to know if an Environmental Impact Report (EIR) would be prepared to assess potential implications of the federal and state Endangered Species Acts with regard to the tree cutting. Ms. Stewart stated that a Navy biologist would review the Forest Service's work plan. Mr. Fickett noted that Mr. Choisser's concerns should be addressed after a work plan is approved, and when an EIR is open for review and public comments.

Mr. Choisser was also interested in any implications caused by the previous burning of the grasslands. Mr. Perry said that the U.S. Fish and Wildlife Service had been consulted regarding the firebreak before the burning took place.

Scott McConnell (Clyde resident) reiterated that questions and concerns regarding the groves had been brought to the RAB's attention and had been determined to be outside the subject matter of the RAB meetings.

IV. RPM UPDATE

Navy Update

Mr. Perry briefly discussed items on the Navy RPM Update handout (see Attachment C) that would be presented later in the meeting. He specifically emphasized items dated June 12, 2009, June 25, 2009, and June 30, 2009, which focus on the Areas of Potential Interest (AOPI). Mr. Perry touched on the success of the web conference, which permitted participants to view the aerial photographs of the AOPI simultaneously on individual computers.

Mr. Ramsey further elaborated the success of the web conference by noting the key role the aerial photographs played in conjunction with old records and site visits. The aerial photos allowed the EPA and Navy to identify new AOPIs, as well as to clarify discrepancies in the time frame of past land uses in the Inland Area. Mr. Ramsey specifically pointed out the analytical results for Site 23A. Records originally reported the area was used for open burn and detonation during the 1940s and 1950s, when actually it was used during the 1960s and 1970s.

EPA Update

Mr. Ramsey said the EPA provided comments to the Navy on the schedules of the Draft Site Management Plan for Fiscal Year 2010 on July 16, 2009. Mr. Ramsey said there were minor changes to the schedules. He estimated the Navy would provide the Draft Final Site Management Plan to EPA by August 16, 2009. The Navy would later post the final schedule for the public.

On July 14, 2009, Mr. Ramsey escorted Michael Montgomery (EPA Branch Chief, Assistant Superfund Division Director) and Eric Esler (EPA Facility Attorney) around the Inland and Tidal Areas of NAVWPNSTA Concord and Military Ocean Terminal Concord.

Mr. Ramsey said EPA drafted a letter on August 3, 2009, responding to the Navy's Draft Record of Decision (ROD) for Solid Waste Management Unit (SWMU) Sites 2, 5, 7, and 18.

Water Board

Mr. Kaiser said that Mr. Friedman reviewed the following documents since the last RAB meeting:

- Internal Draft Historical Radiological Assessment (HRA)
- Basewide Groundwater Monitoring Sampling Plan
- AOPI Work Plan
- Groundwater Reports for Underground Storage Tank (UST) Site Investigation Area-17

Mr. Kaiser said that Mr. Friedman provided the Navy comments on the Internal Draft HRA requesting more information on problems and proposing resolutions. The Internal Draft HRA documented only research efforts.

Mr. Kaiser said that Mr. Friedman wanted to mention that some of the USTs have since been removed; however, the ground water reports continue to show diesel and motor oil. The Water Board understands that the Navy will continue monitoring but will be preparing a corrective action plan (CAP) to address the residuals.

Mr. Perry reaffirmed the Water Board's understanding on a future UST CAP. Mr. Perry also pointed out that the close proximity of the SWMU sites to UST IA-17 could allow the Navy to use the same equipment for air sparging for both sites. However, the Navy will need to consider the engineering feasibility as a cost saving option.

Mr. Birsan noted the Draft HRA presented a scoping survey to further assess the findings of the document. The Draft HRA indicated no areas at NAVWPNSTA Concord posed a major concern.

Mr. Perry said a Draft HRA would be available to the public on August 11, 2009. Mr. Ramsey added a fact sheet would also accompany the Draft HRA.

V. AOPI AND PA/SI UPDATE PRESENTATION

Lora Battaglia (Navy RPM) introduced and provided an overview of the AOPI presentation. Steve Delhomme (Tetra Tech) gave the AOPI and PA/SI Update presentation (Attachment D).

Mr. Birsan asked about the white spots on IA-25 in 1949. Mr. Delhomme said they were the result of a defect in the negative.

Mr. Kaiser and Mr. Ramsey commended Mr. Delhomme for the presentation and good explanations.

VI. IR SITE 27 PRESENTATION

Ms. Battaglia introduced and provided an overview of the IR Site 27 presentation. Yohji Ono (Tetra Tech) gave the IR Site 27 presentation (Attachment E).

Mr. McConnell asked whether additional removal for metals was required to meet cleanup goals (on the time critical removal action [TCRA] status slide) and asked how the goals are structured. Mr. Ono explained the goal was for all confirmation samples to meet the ecological goal of 0.06 milligrams per kilogram (mg/kg), or if under 6 feet, 0.22 mg/kg for the human health goal.

Mr. Perry said the goal of the TCRA project is for no further action. Mr. McConnell wanted to know if the excavated site would be filled. Mr. Perry confirmed that the excavation will be filled. In addition, Mr. Perry said the borings would provide information on how much more excavation will be required. If the boring continues to show unfavorable concentrations, the path forward may need to be reevaluated.

Mr. McConnell noted the soil is temporarily being stored on site but is to be removed to another location off base. Mr. Perry said the soil would eventually be removed; however, the results of the HRA have delayed these efforts. Mr. Perry also wanted to clarify that the scoping survey at Site 27 is not the same as the scoping surveys on all the sites affected by the basewide HRA. The scoping survey will be conducted to address worker health and safety for TCRA activities on Site 27.

Mr. Choisser asked Mr. Ono to distinguish between ecological and human health goals. Mr. Ono explained the ecological goal is based on a more sensitive receptor (a bird or burrowing animals), which is usually an inhabitant above 6 feet. At depths below 6 feet, an ecological criterion does not apply, but continues to apply for human health.

Ms. Welles asked about the size of the dial gauges to better understand how much potential radium was on the dial gauges. Mr. Ono said it was unclear to him. Mr. Perry said he believed the gauges are fairly large. He also mentioned there was a leak and a medium-sized flake of radium was released. The spill was cleaned and the area was scanned afterward with no further traces found.

Mr. Ono noted the TCRA schedule is based on the radiological screening results.

Mr. Ono asked if there were any questions, and Mr. Birsan inquired about the Draft Removal Action Completion Report (RACR) being completed on July 2, 2010. He asked whether the excavation and site would be filled in when the Draft RACR is completed. Mr. Ono confirmed that the field work will also be complete once the Draft RACR is complete.

Shon Wolf (Clyde resident) asked for the date when work stopped. Mr. Ono said it was about

December 18, 2008. Mr. Wolf further inquired if the plastic coverings on the soil stockpiles are periodically checked to make sure they have not corroded. Mr. Ono said the stockpiles are checked regularly. Ms. Battaglia said the coverings were recently replaced, which Mr. Ramsey confirmed.

Mr. Ramsey commended the Navy for its continuous work on Site 27 and the intensive investigative work on a relatively small site.

Mr. Skaredoff asked if there was any concern about polychlorinated biphenyls in the water table, or if a water table was near by. Mr. Perry said the water table was deep in this area and the excavation has not reached the water table. If the Navy reaches the bottom of the excavation and is not near the water table, then the site will go to no further action.

VII. OTHER TOPICS, NEXT MEETING, AND ACTION ITEMS

Ms. Stewart said two of the proposed topics for the October 7, 2009, RAB meeting will not be ready. If they are not ready, a public meeting could be held for the Proposed Plan for Site 22. She said the RAB meeting may be shorter and the public meeting would be held the same night.

Mr. Ramsey mentioned a proposed EIR for Bunker City is to be completed by September 2009. Mr. Ramsey wanted to know if an update on Bunker City will be available for the October 7, 2009, RAB meeting. Mr. Perry and Ms. Stewart said the update on Bunker City will be discussed as part of the public meeting for the Proposed Plan for Site 22.

No.	Action Item	Target Date for Completion	Responsible Person	Completion Date (or Status)
1	The Navy will finalize and distribute the June 3, 2009, RAB meeting minutes.	8/20/09	C. Hunter	This action item was completed.

ATTACHMENT A
ATTENDEES AND AFFILIATIONS
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD

AUGUST 5, 2009

(1 Page)

**ATTENDEES AND AFFILIATIONS
 RESTORATION ADVISORY BOARD MEETING
 FORMER NAVAL WEAPONS STATION SEAL BEACH
 DETACHMENT CONCORD, CALIFORNIA**

AUGUST 5, 2009

<u>Name</u>	<u>Affiliation</u>	<u>Telephone</u>
Lora Battaglia	U.S. Navy, BRAC PMO West	(619) 532-0968
Edi Birsan*	Concord Resident	(510) 812-8180
Paul Choisser	CNWS Neighborhood Alliance	None Provided
Steve Delhomme	Tetra Tech	(832) 251-5163
Kent Fickett*	Mt. Diablo Audubon Society	(925) 254-5156
Quinn Johnson	Tetra Tech	(510) 302-6247
John Kaiser	Water Board	(510) 622-2368
Scott McConnell*	Clyde Resident	(925) 676-7093
Yohji Ono	Tetra Tech	(510) 302-6301
Charles Perry	Navy, BRAC PMO West	(619) 532 0911
Philip Ramsey	EPA	(415) 972-3006
Cindi Rose	Tetra Tech	(415) 222-8286
Igor Skaredoff*	Martinez Resident	(925) 229-1371
Kathy Stewart	Navy, BRAC PMO West	(415) 743-4715
Frank Troglione	New World Technologies	(209) 499-9208
Tommie Jean Valmassy	Tetra Tech	(510) 302-6232
Cindy Welles*	Clyde Resident	(925) 685-2698
Mary Lou Williams*	Concord Resident	(925) 685-1415
Shon Wolf*	Clyde Resident	(925) 686-5924

Notes:

*	Community Restoration Advisory Board (RAB) Member
BRAC PMO	Base Realignment and Closure Program Management Office
CNWS	Concord Naval Weapons Station
EPA	U.S. Environmental Protection Agency
Tetra Tech	Tetra Tech EM Inc.
Water Board	San Francisco Bay Regional Water Quality Control Board

ATTACHMENT B

**AGENDA
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

AUGUST 5, 2009

(2 Pages)

INLAND AREA AGENDA

FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD INLAND AREA RESTORATION ADVISORY BOARD (RAB) MEETING

Wednesday, August 5, 2009

6:00 p.m. – 7:45 p.m.

Location: Concord Police Station Community Room
1350 Galindo Street
Concord, CA 94520

- 6:00 – 6:15 Call to Order
- Welcome
 - Introductions/Agenda Review
 - Approval of June 2009 Meeting Minutes (Last Inland Area Meeting)
 - Public Comment Period
- Lead: Community Co-chair
- 6:15 – 6:20 Announcements
- Review of Action Items
- Lead: Navy Co-chair
- 6:20 – 6:30 Committee Reports/Announcements
- RAB Announcements, Reports or other business (Community Co-chair)
 - RAB Open Comment Period
 - Remedial Project Managers' (RPM) Update (Navy/EPA/DTSC/RWQCB)
 - City of Concord Update
- 6:30 – 6:40 Break
- 6:40 – 7:15 Presentation: Areas of Potential Interest Preliminary Assessment/Site Inspection (PA/SI) Update
Navy: Lora Battaglia, Remedial Project Manager
- 7:15 – 7:35 Presentation: Site 27 Time Critical Removal Action Field Work Update
Navy: Lora Battaglia, Remedial Project Manager
- 7:35 – 7:45 Potential Topics for Future Meetings
Next RAB Meeting: October 7, 2009
October 2009 Agenda Approval
- 7:45 Adjourn

Next RAB Meeting

- *Inland Area: October 7, 2009*

*NAVWNPSTA CONCORD RAB Meetings are held the first Wednesday of every month, unless changed.
Information regarding the Environmental Restoration program at Former Naval Weapons Station Seal
Beach Detachment Concord Inland Area can be found at:*

<http://www.bracpmo.navy.mil/basepage.aspx?baseid=39&state=California&name=concord>

BRAC Environmental Coordinator: Ms. Kathy Stewart (415) 743-4715, kathryn.stewart@navy.mil

Community RAB Co-Chair: Ms. Mary Lou Williams, Mlou1015@aol.com

ATTACHMENT C

**NAVY REMEDIAL PROJECT MANAGERS' UPDATE
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

AUGUST 5, 2009

(1 Page)



Navy Remedial Project Manager (RPM) Update for 5 August 2009 Meeting of Former Naval Weapons Station Seal Beach Detachment Concord

Summary of Navy Base Realignment and Closure (BRAC)
Inland Area RPM activities since the last RAB meeting held on
Wednesday, 3 June 2009

Installation Restoration/Munitions Response Programs Sites

- June 8, 2009 – Submitted the Draft Sampling and Analysis Plan for Basewide Groundwater monitoring.
- June 12, 2009 – Submitted the Draft Work Plan for Preliminary Assessment/Site Inspection at Areas of Potential Interest.
- June 15, 2009 – Submitted the Draft Site Management Plan for Fiscal Year 2010.
- June 22, 2009 – Submitted the Revised Draft Final Sampling and Analysis Plan for Site 24A, Pistol Firing Range.
- June 25, 2009 – Held a webconference with the RPMs to review aerial photographs for the Area of Potential Interest Sites.
- June 30, 2009 – Held an RPM site visit to the Area of Potential Interest Sites.
- August 4, 2009 – Submitted the Draft Risk Assessment Technical Memorandum for Eagle Nest EOD and Former Inland Burn Area and Railroad Sidings Excavation Area.

ATTACHMENT D

**AREAS OF POTENTIAL INTEREST (AOPI) PRESENTATION
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

(22 Pages)



BRAC
PMO WEST

Areas of Potential Interest (AOPI)

Former Naval Weapons Station
Seal Beach Detachment Concord

Restoration Advisory Board Meeting
August 5, 2009

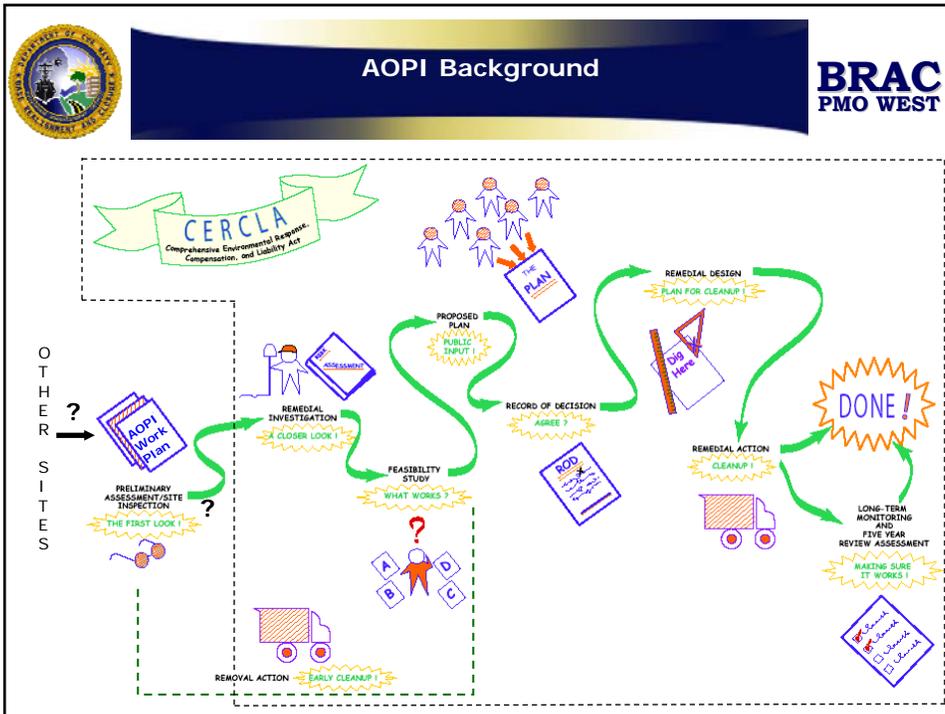


Presentation Overview

BRAC
PMO WEST

- Areas of Potential Interest (AOPI) Background
- Draft Work Plan
- Historical Aerial Photo Review
- Aerial Photo Interpretation
- Schedule
- Questions





- AOPI Background**
- **IRP / MRP Site**
 - designated numbers and tracked
 - require some type of official closure
 - typically determined by previous sampling or other data indicating a potential issue
 - **AOPI**
 - primarily identified by site walks or aerial photos
 - has not been identified as a site requiring action
 - may not require any field effort for no further action
- 3



AOPI WORKPLAN

BRAC
PMO WEST

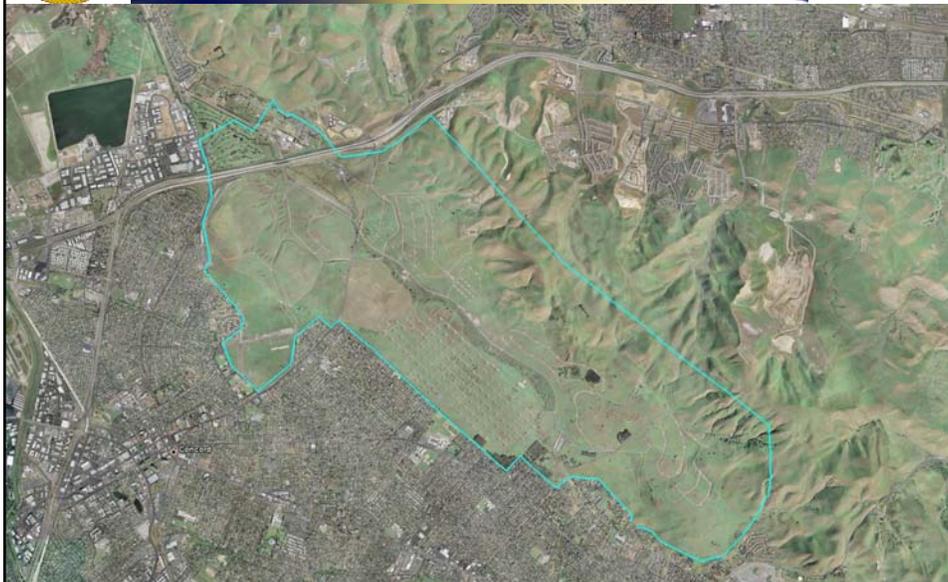
- Draft Work Plan
 - Issued to Agencies June 12, 2009
 - Includes
 - Building 93
 - IA-100 Storage Area
 - Building IA-27 "Disposal Area"
 - Building IA-25 "Outfeature"
 - HE-5 (*NFA recommended*)
 - Unocal Spill Area
 - Southern Railroad Revetment Excavations (*NFA recommended*)
 - Northern Railroad Excavations
 - Building IA-20 (*NFA recommended*)
 - Bermed Area
 - Building 81
 - Additional areas under review

4



Concord Areas of Potential Interest

BRAC
PMO WEST





Concord Areas of Potential Interest

BRAC
PMO WEST

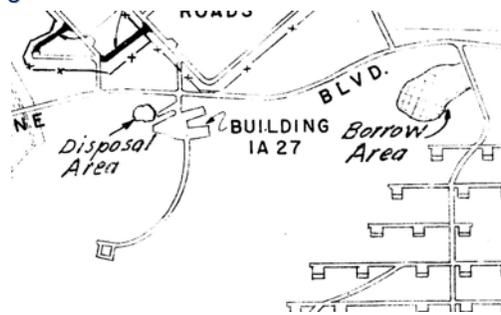


AOPI Background

BRAC
PMO WEST

AOPI Preliminary Assessment/Review Data Including

- Site Visits (EPA and Navy)
- Historical Reports
- Site Maps and Drawings
- Personnel Interviews
- Historic Aerials



1963 Site Map



Historical Aerial Photo Review IA 100

BRAC
PMO WEST



IA-100 in 1946

BRAC
PMO WEST





IA-100 in 1969

BRAC
PMO WEST



IA-100 in 1980

BRAC
PMO WEST





IA-25 in 1949

BRAC
PMO WEST



IA-25 in 1952

BRAC
PMO WEST





IA-25 in 1974

BRAC
PMO WEST



Historical Aerial Photo Review Guam Way

BRAC
PMO WEST





Guam Way in 1946

BRAC
PMO WEST



Guam Way in 1949

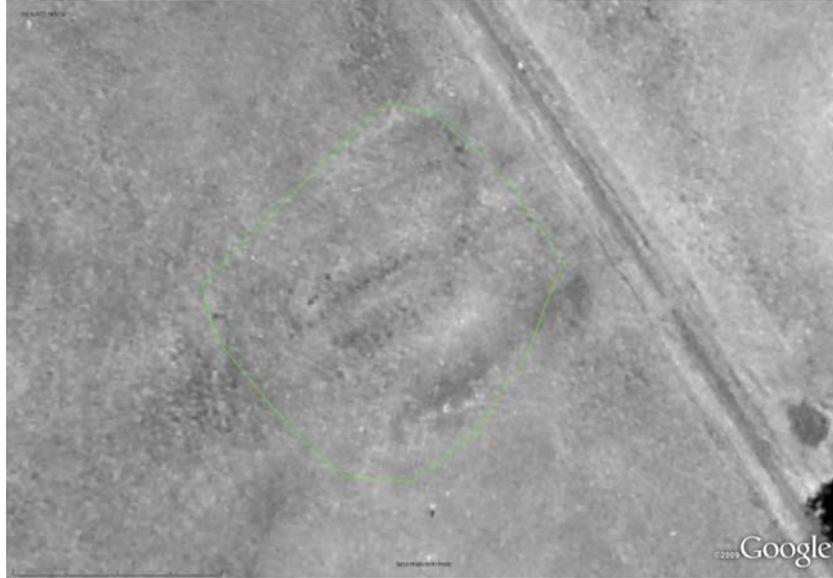
BRAC
PMO WEST





Guam Way in 1990

BRAC
PMO WEST



Site Walk Guam Way

BRAC
PMO WEST

- Use GPS, metal detectors as well as visual observations

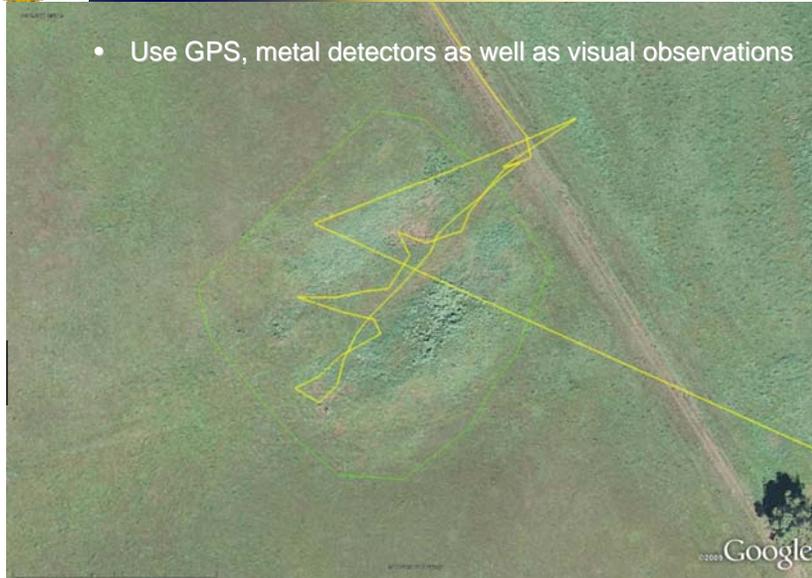




Site Walk Guam Way

BRAC
PMO WEST

- Use GPS, metal detectors as well as visual observations



Site Walk Guam Way

BRAC
PMO WEST

- Use GPS, metal detectors as well as visual observations

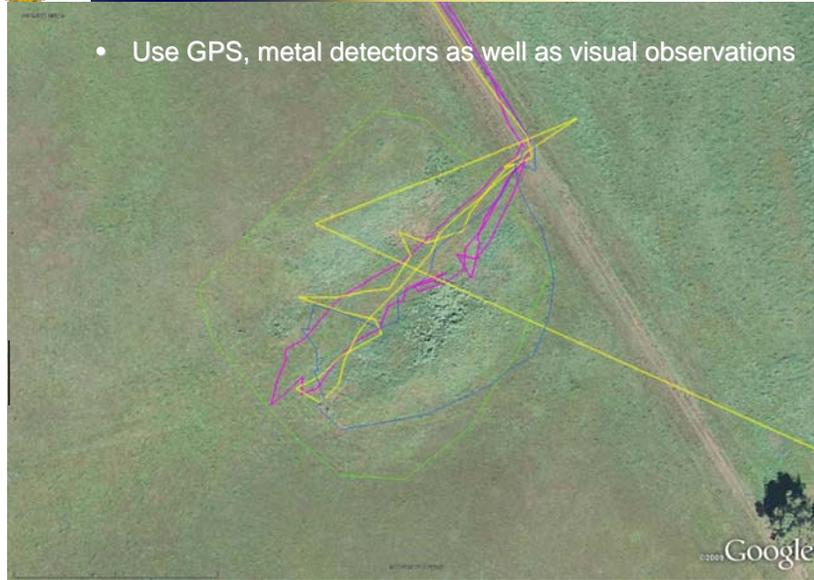




Site Walk Guam Way

BRAC
PMO WEST

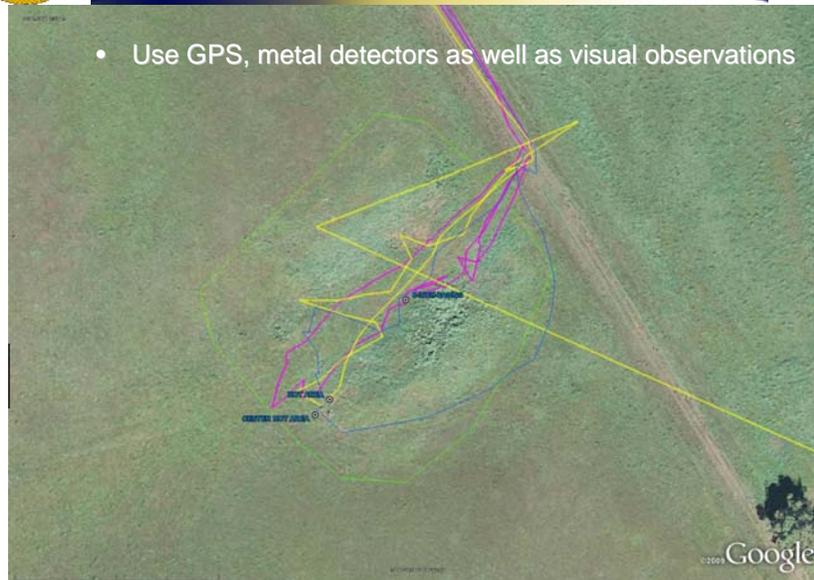
- Use GPS, metal detectors as well as visual observations



Site Walk Guam Way

BRAC
PMO WEST

- Use GPS, metal detectors as well as visual observations





Site Walk Guam Way

BRAC
PMO WEST



Historical Aerial Photo Review Bldg 81

BRAC
PMO WEST





Bldg 81 in 1963

BRAC
PMO WEST



Bldg 81 in 1966

BRAC
PMO WEST





Historical Aerial Photo Review Bldg 81

BRAC
PMO WEST



Historical Aerial Photo Review Bldg 81

BRAC
PMO WEST





Historical Aerial Photo Review Bldg 81

BRAC
PMO WEST



Schedule

BRAC
PMO WEST

- Scoping meeting held on Jan 21, 2009.
- Draft SI Work Plan to agencies in June 16, 2009
- Regulatory Agency Review – 60 days (Comments Due 8/14/09)
- Modify Draft Final Work Plan by Dec 11, 2009
- Finalize Work Plan Feb 9, 2010
- Field work beginning April 2010



Questions?

BRAC
PMO WEST

Project Team:

- Lora Battaglia - RPM, Navy
- Steve DelHomme, P.E.- PM, Tetra Tech
- Ralph Basinski - MRP Expert, Tetra Tech
- Ralph Brooks - MEC Coordinator, Tetra Tech
- Jeff Eddo - Geophysics Expert, Tetra Tech

ATTACHMENT E

**INSTALLATION RESTORATION (IR) SITE 27 PRESENTATION
TIME-CRITICAL REMOVAL ACTION (TCRA) FOR METALS AND PCBS AND
RADIOLOGICAL SURVEILLANCE SURVEY UPDATE PRESENTATION
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

AUGUST 5, 2009

(11 Pages)



Installation Restoration (IR) Site 27



Time-critical Removal Action (TCRA) for Metals and PCBs and Radiological Surveillance Survey Updates

Former Naval Weapons Station Seal Beach Detachment Concord, Concord, California

Restoration Advisory Board Meeting

August 5, 2009



Site 27 Update



- TCRA Removal Action Background
- TCRA Removal Action Status Update
- Historical Radiological Assessment (HRA) findings of potential radiological concerns at Building IA-20
- Radiological Screening Survey
- Results
- TCRA Path Forward
- Schedule
- Questions



Site 27 Buildings



**Site 27 Boiler House (Bldg IA-36) and
Chemical and Materials Testing Laboratory (Bldg IA-20)**

3



Site 27 TCRA Background

- TCRA soil excavation initiated October 2008 to remove soil exceeding ecological goals

TCRA Planned Removal (October 2008)

TCRA Soil Removal Area	COPECs	Maximum Detected Concentration (mg/kg)	Removal Goal (mg/kg)	Description of Excavation	Estimated Volume of Excavated Soil
Metals Removal Area	Lead	244	216	Removal of soil within 10 feet of Buildings IA-20 and IA-36 (approximately 2,440 square feet without buildings) to 1 foot bgs Removal of additional soil from a 4-foot by 4-foot square area around S27SB15 from 1 to 3 feet bgs	90.4 cy
	Mercury	6.05	0.88		1.2 cy
	<i>Total</i>				92 cy
PCB Removal Area (PCB-1 through PCB-4)	Aroclor-1248	0.5	0.06	Removal of soil from 4-foot by 4-foot square area around four locations in the vicinity of Buildings IA-20 and IA-36 to 1 foot bgs	2 cy
	Aroclor-1254	1.0	0.37		

Notes:
 bgs Below ground surface
 cy In-place cubic yards
 COPEC Chemicals of potential ecological concern
 mg/kg Milligram per kilogram
 PCB Polychlorinated biphenyls
 TCRA Time-critical removal action
 Human Health goal for Aroclor-1248 is 0.22 mg/kg (less stringent than ecological goal).



TCRA Excavation Phase I



Excavation for metals and PCBs down to 1 foot below ground surface, and 10 feet in distance around Building IA-20, plus some isolated potholes, October 14, 2008 (Phase I)

5



TCRA Excavation Phase II



PCB Excavation in Drainage Swale – November 13, 2008 (Phase II)

6



TCRA Excavation Phases III and IV



Additional Aroclor-1248 Excavation (facing southwest) – November 19, 2008 (Phase III)



Additional Aroclor-1248 Excavation (facing east) – December 18, 2009 (Phase IV)

7



TCRA Excavation Phase V



Beginning of day

Covered excavation – end of day



TCRA Excavation in Drainage Swale – December 16, 2008 (Phase V)

8



TCRA Excavation Soil Stockpiles

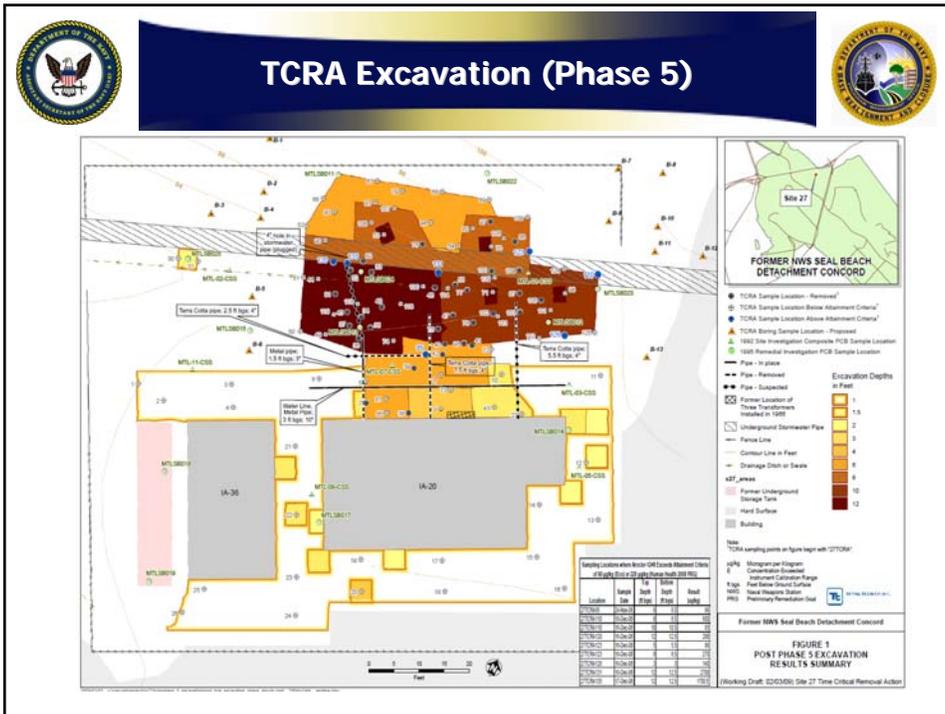


Excavated Soil Stockpiles – December 18, 2008 (Phase V)



TCRA Excavation Phases 1-5





TCRA Removal Action Status

Five phases of excavations completed at Site 27 through December 2008

- Phase I: 10/14/2008 – 10/16/2008
 - 100 cubic yards excavated. Lead removal complete. Additional removal of mercury, Aroclor-1248, and Aroclor-1254 required to meet cleanup goal
- Phase II: 11/13/2008
 - 75 cubic yards excavated. Removal of mercury, and Aroclor-1254 complete
- Phase III: 11/19/2008
 - 200 cubic yards excavated. Additional removal for Aroclor-1248 required to meet goal.
- Phase IV: 11/24/2008
 - 45 cubic yards excavated. Additional removal for Aroclor-1248 required to meet goal.
- Phase V: 12/16/2008
 - 245 cubic yards excavated. Additional removal for Aroclor-1248 required to meet goal.

Summary:

- Soils with PCBs (Aroclor-1248) above cleanup goals remain on site and require additional investigation/removal
- 665 cubic yards of soil excavated
- Lead, mercury, PCBs (Aroclor-1254) removal complete (removal goals met)

- In February 2009, Historical Radiological Assessment (HRA) evaluation identified historical radiological activities at Building IA-20
- TCRA on hold pending completion of radiological screening survey of Site 27



Historical Radiological Assessment (HRA)



- Base-wide HRA identified historical radiological activities at Building IA-20 (Testing Laboratory)
 - Storage and calibration of tensiometers with radium dial gauges
 - Record of one radium dial breakage incident and cleanup
 - Possible storage of depleted-uranium projectiles
- Navy postponed TCRA activities at Site 27 to conduct radiological screening to ensure health and safety during TCRA work.
- May 2009 – Navy prepared Radiological Support Work Instruction to guide radiological investigation for TCRA worker safety
 - Survey included
 - Interior surfaces of Building IA-20
 - Intact sewer piping potentially connected to sinks in Building IA-20
 - Sewer pipes removed during the TCRA and stockpiled on-site
 - A stormwater pipe outlet
- A Radiological Scoping Survey is planned for IA-20 in the future per HRA recommendations

13



Tasks 1 and 2 – Excavated Piping Surveys



- Surveyed piping removed during excavation for alpha and beta/gamma contamination

- Collected swipe samples from excavated piping, checking for alpha and beta/gamma contamination





Tasks 3 and 4 – In-Situ Piping Surveys



- Collected swipe samples from exposed piping to check for alpha and beta/gamma radiation
- Collected soil and terra cotta piping samples to analyze for radium and uranium 234, 235, 238)



- Surveyed exposed piping left in the ground (alpha and beta/gamma scan survey)



Task 5 - Building IA-20 Survey



- Performed a limited screening survey inside Building IA-20 focusing on work surfaces, sinks, and drains (alpha/beta/gamma scan survey and swipe samples)



Swipe sampling



Task 6 – Stormwater Pipe Outlet Samples



- Collected swipe and soil samples at end of stormwater pipe for analysis of radium and uranium 234, 235, and 238

17



Results/Pending Results



- Tasks 1 and 2: Excavated Piping Survey – no contaminated pipes found based on swipe counts and scans
- Tasks 3 and 4: In-situ Piping Survey– soil and terra cotta sample analysis pending – results expected September 2009
- Task 5: Building IA-20 Survey – no contaminated surfaces found based on swipe counts and scans
- Task 6: Sediment samples from stormwater pipe outlet – soil sample analysis pending – results expected September 2009

18



TCRA Path Forward



- Soil borings will be conducted to evaluate extent of PCB (Aroclor-1248) in soil to a depth of 5 to 14 feet below ground surface
- Additional removal planned to address PCB (Aroclor-1248) remaining in soil north of Building IA-20
- Removal goals for PCB (Aroclor-1248)
 - Ecological goal: 0.06 mg/kg (0 to 6 feet below ground surface)
 - Human health goal: 0.220 mg/kg (below 6 feet)

19



Next Steps at Site 27



- TCRA Field Removal Completion (Final Remedy for Site 27)
- Screening Level Ecological Risk Assessment (SLERA)
- Removal Action Completion Report (RACR)
- No Further Action Proposed Plan (NFA PP)
- No Further Action Record of Decision (NFA ROD)

20



Site 27 Schedule



- Radiological Clearance of Site 27 for TCRA to Proceed – 10/5/2009 [estimated]
- TCRA Field Work Complete – 12/14/2009
- Complete Confirmation Sample Data Validation – 1/25/2010
- Draft Removal Action Completion Report (RACR) and Screening-Level Ecological Risk Assessment (SLERA) – 7/2/2010

21



Questions?



**Aerial Photo
from June 27,
2002**

22