



TETRA TECH EM INC.

November 13, 2007

Dear RAB Members,

On behalf of the Navy, enclosed please find the September 5, 2007 final RAB meeting minutes for your information and records.

If there are any questions regarding the enclosed minutes, please contact Carolyn Hunter at (415) 222-8297 or Carolyn.hunter@ttemi.com.

Sincerely,

Carolyn Hunter
Community Relations Specialist
Tetra Tech EMI

FINAL
MEETING MINUTES
RESTORATION ADVISORY BOARD
INLAND AREA ENVIRONMENTAL RESTORATION PROGRAM
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD
CONCORD, CALIFORNIA
SEPTEMBER 5, 2007

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 Naval Weapons Station Seal Beach Detachment Concord (NAVWPNSTA Seal Beach Det Concord), California. The meeting was held from 6:30 p.m. to 8:15 p.m. on September 5, 2007, at the Concord Police Department Community Room 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.

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.

The Navy Co-Chair, Darren Newton (U.S. Department of the Navy [Navy]) Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) reviewed the agenda for the September 5, 2007 meeting. Mr. Newton also announced the next Tidal Area RAB meeting will be held the first Wednesday in October 2007.

Igor Skaredoff (Martinez resident) requested that either Inland Area or Tidal Area be put in the title block of the RAB agendas in order to make it clear which section of NAVWPNSTA Seal Beach Det Concord is being discussed at the meeting. Mr. Newton agreed to put which portion of the base is being discussed in the title block of the RAB agenda for future meetings.

Action Item

1. The Navy will add "Inland Area" or "Tidal Area" to the title block for all future RAB agendas.

II. JULY 2007 RAB MEETING MINUTES APPROVAL

Ms. Williams asked the RAB for comments on the minutes from the meeting held on July 11, 2007. No comments were received on the July 11, 2007 RAB meeting minutes. The Navy will finalize the minutes from the July 11, 2007 meeting and distribute them to the RAB.

Action Item

2. The Navy will finalize and distribute the July 11, 2007 RAB meeting minutes.

III. RAB ANNOUNCEMENTS

Ms. Williams opened the floor to RAB announcements. Mr. Newton reviewed the Navy and regulatory agency contacts for the RAB. Mr. Newton announced Dennis Parker (Navy Remedial Project Manager [RPM]) has joined the team and will be the RPM for Military Munitions Response Program (MMRP) Site 23A, Inland Area Explosive Ordinance Disposal (EOD) site. The Navy and Environmental Protection Agency (EPA) toured Site 23A on September 5, 2007.

Richard Perry (Department of Toxic Substances Control [DTSC]) introduced himself and announced he is the new Public Participation Specialist on NAVWNPSTA Seal Beach Det Concord from the DTSC.

Mr. Skaredoff announced Saturday, September 8, 2007 is the National Coastal Cleanup Day. A cleanup effort is being conducted for the Alhambra Watershed. Mr. Skaredoff invited everyone to participate in the National Coastal Cleanup Day.

Public Announcements

Ms. Williams opened the floor to public announcements. Linda Ballentine (Contra Costa Resource Conservation District) invited the RAB and community members to a celebration to acknowledge the completion of a planning document for the Mount Diablo Creek watershed that will be held on Saturday, September 15, 2007 at the Clayton Community Library.

BEC Topic of Interest – Responsibility for Additional Environmental Cleanup After Transfer of Real Property

Mr. Newton made a presentation on the Navy's responsibility for additional environmental cleanup after transfer of real property, which is included as Attachment C.

Ms. Williams asked who is responsible for restoration of property between the double fence line. Mr. Newton stated if that area is owned by the Navy and there is contamination that was left by the Navy, the Navy is responsible for restoration. The Navy has a covenant that binds them to the property even after transfer.

Lisa Anich (Friends of Mount Diablo) asked about the transfer process. Mr. Newton stated the Navy works with the regulatory agencies and the City of Concord to restore the property. Mr. Newton stated a transfer of property cannot be done until the restoration is completed. The restoration and transfer of property is a cooperative effort.

Kent Fickett (Mount Diablo Audubon Society) stated he wants to make sure the most stringent Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) standards are used in the restoration process. Mr. Newton said the Navy will evaluate unrestricted reuse, which have the most stringent cleanup goals. Ric Notini (City of Concord) stated the City of Concord is working with the Navy and regulatory agencies to coordinate the cleanup efforts in conjunction with the reuse plan for the Inland Area, which is being prepared.

IV. REMEDIAL PROJECT MANAGER UPDATE

Navy Update

Mr. Newton stated the Navy prepared an RPM Update handout for the Inland Area activities that have occurred since the last Inland Area RAB meeting (see Attachment D).

Mr. Newton stated the Navy is waiting on validated results from the Site 29 investigations. Once the data have been validated, a RPM meeting will be set up to discuss the results. Mr. Skaredoff asked how far down the Navy drills to collect groundwater samples. Alan Friedman (San Francisco Bay Regional Water Quality Control Board [Water Board]) stated drilling can go down as far as the bedrock at the site. Joanna Canepa (Tetra Tech EM Inc.) stated the depth to groundwater at Site 29 is 60 feet below the ground surface.

Mr. Newton stated the Navy distributed the Draft Final Site Management Plan (SMP) on July 16, 2007. Mr. Newton stated the Navy is fully funded to execute all of the work discussed in the SMP for fiscal year 2008.

Mr. Newton stated the Navy has completed the first round of soil sampling for the Draft Site 22A Remedial Investigation and is currently reviewing data from the sampling results.

Mr. Newton stated the Navy is planning on beginning the chlordane sampling effort at Site 27 in October 2007.

EPA Update

Mr. Newton stated Phillip Ramsey (EPA) could not be at the RAB meeting but will send an EPA RPM update to distribute to the RAB via e-mail and attach to the final September 5, 2007 meeting minutes.

Water Board Update

Mr. Friedman stated he reviewed several documents in August 2007. The regulatory agencies are working on various sites to ensure protection of human health and the environment in the Inland Area. The Water Board participated in various meetings and site walks during the month of August 2007.

Mr. Friedman participated in the Site 22 Feasibility Study (FS) scoping meeting on August 21, 2007.

City of Concord Update

Mr. Notini stated the City of Concord is on track for developing a reuse plan as the Local Reuse Authority. The City of Concord conducted the third community outreach workshop on Saturday, August 4, 2007 at the Concord Senior Citizens Center to identify site reuse alternatives for the Inland Area.

Mr. Notini stated the next Citizens Advisory Committee (CAC) meeting will occur on September 18, 2007. The location has changed and will be posted on the City of Concord website. The City of Concord will be presenting the reuse plan to the CAC at the meeting. There will be 4 to 6 reuse concepts presented to the CAC for their input prior to being presented to the Concord City Council on October 9, 2007. Each of the reuse concepts approved by the City Council will be evaluated in an environmental impact report (EIR) in 2008. Once the Draft EIR is completed, the City of Concord will host a public meeting to take comments. The CAC has various subcommittees that include technical advisory, education, and transportation subcommittees that will be reviewing the EIR.

A homeless public benefit conveyance process is currently being organized and a request for proposals was distributed. Proposals are due September 26, 2007. The proposals received will be assessed as part of the reuse plan. If anyone is interested in more information on the reuse plan, they can check the City of Concord website.

Ms. Williams asked if the City of Concord has received a proposal from an emancipated minors group. Mr. Notini stated to his knowledge that the City of Concord has not received a proposal for an

emancipated minors group. He would need to get additional information from Ms. Williams to track the proposal down.

V. MILITARY MUNITIONS RESPONSE PROGRAM SITE PRIORITIZATION TABLE UPDATE

Mr. Newton discussed the MMRP site prioritization table update. An acronyms list is included as Attachment E.

Mr. Newton stated the Navy is required to present the MMRP Site Prioritization Tables to get stakeholder input on the prioritization of the sites. The Navy distributed the MMRP tables to the RAB prior to the RAB meeting for their input. Because the Inland Area is slated for transfer, all of the Inland Area MMRP sites are progressing concurrently.

Mr. Newton reviewed the rationale for the MMRP prioritization process and how the ranking was achieved. Mr. Friedman recommended a 1-page summary of the MMRP site ranking be prepared to distribute to the public. Mr. Fickett suggested adding the numerical value for each MMRP site to the 1-page summary.

VI. SITE 22 FEASIBILITY STUDY UPDATE

Brenda McConathy (Tetra Tech) provided a presentation on the Site 22 FS. The presentation is included as Attachment F.

Mr. Fickett asked if the Navy is looking at the City of Concord's proposed reuse of Site 22 when determining the alternatives in the FS. Mr. Newton said that the City has not proposed a reuse at this time, and therefore, the Navy is evaluating like use as well as the assumption of unrestricted reuse when presenting the remedial alternative. Mr. Fickett recommended that Site 22 be slated for open space in the City of Concord's reuse plan.

Mr. Skaredoff asked if there have been studies on the cattle that graze at Site 22 to determine if there is arsenic in their tissue. Mr. Notini stated the Agency for Toxics and Disease Registry (ATSDR) came out a few years ago and did an assessment of Site 22. ATSDR reported that there is not an unacceptable arsenic risk at Site 22.

Mr. Fickett asked about the human health effects from arsenic. Ms. Canepa stated if the exposure to arsenic is at high levels, it can cause to skin lesions and cancer. Mr. Fickett stated he is concerned with the exposure to arsenic in the soil during the reuse construction at Site 22. Ms. Williams mentioned the Navy gave a presentation on arsenic toxicology to the RAB about 6 months ago.

Beth Byrne (Concord resident) stated she wants to make sure that the Navy addresses any contamination in the soil under the floor of the magazines at Site 22. Ms. McConathy stated there are no plans to remove the magazines because there is no reason to believe arsenic would be present inside the concrete. The arsenic was applied around the outside of the magazines and likely on the top and sides to control vegetation. Alternatives 3 and 4 in the FS assume the soil around the magazines would be removed and soil on the top and sides of the magazines would be scraped off.

Mr. Newton stated the Navy will look into preparing a fact sheet to provide the public with more information on the Site 22 FS. Mr. Skaredoff suggested a fact sheet might be more useful further along in the CERCLA process once more information is known about the remediation and reuse of Site 22.

VII. OTHER TOPICS, NEXT MEETING, AND ACTION ITEMS

November 2007 RAB Agenda Approval

Mr. Newton reviewed the proposed agenda for the November 7, 2007 RAB meeting.

The Navy plans to provide the following presentations at the November 7, 2007 RAB meeting:

- Inland Area Field Work Status Update
- Risk Management Overview

Ms. Williams asked the RAB to approve the November 2007 agenda. The RAB voted to approve the November 7, 2007 meeting agenda, with the additional presentation.

The next Inland Area RAB meeting is scheduled for 6:30 to 8:30 p.m. on Wednesday, November 7, 2007.

The following action items were generated during the RAB meeting on September 5, 2007.

No.	Action Item	Target Date for Completion	Responsible Person	Completion Date (or Status)
1	The Navy will add Inland Area or Tidal Area to the title block for all future RAB agendas.	9/25/07	C. Hunter	This action was completed.
2	The Navy will finalize and distribute the July 11, 2007 RAB meeting minutes.	9/28/07	C. Hunter	This action was completed.

ATTACHMENT A
ATTENDEES AND AFFILIATIONS
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA
SEPTEMBER 5, 2007

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**ATTENDEES AND AFFILIATIONS
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA
SEPTEMBER 5, 2007**

<u>Name</u>	<u>Affiliation</u>	<u>Telephone</u>
Wayne Akiyama	Shaw Environmental	(925) 288-2003
Lisa Anich*	Friends of Mount Diablo Creek	(925) 689-2642
Linda Ballentine	Contra Costa Resource Conservation District	(925) 855-7185
Beth Byrne	Concord Resident	(925) 686-4815
Harry Byrne	Concord Resident	(925) 686-4815
Joanna Canepa	TtEMI	(425) 877-2806
Kent Fickett*	Mount Diablo Audubon Society	(925) 254-5156
Carolyn Hunter	TtEMI	(415) 222-8297
Curtis Lindskog	Shaw Environmental	(925) 288-9898
Brenda McConathy	TtEMI	(415) 222-8338
Darren Newton	U.S. Navy, BRAC PMO West	(619) 532-0963
Ric Notini	City of Concord	(925) 671-3024
Richard Perry	DTSC	(510) 540-3910
Jim Pinasco	DTSC	(916) 255-3719
Igor Skaredoff*	Martinez Resident	(925) 229-1371
Mary Lou Williams*	Concord Resident	(925) 685-1415

Notes:

*	Community Restoration Advisory Board (RAB) Member
BRAC PMO	Base Realignment and Closure Program Management Office
DTSC	Department of Toxic Substances Control
TtEMI	Tetra Tech EM Inc.

ATTACHMENT B

AGENDA

RESTORATION ADVISORY BOARD MEETING

NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA

SEPTEMBER 5, 2007

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AGENDA

NAVAL WEAPONS STATION SEAL BEACH (NWSSB) DETACHMENT CONCORD
RESTORATION ADVISORY BOARD (RAB) MEETING

Wednesday, September 5, 2007
6:30 p.m. – 8:30 p.m.

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

- 6:30 – 6:45 Call to Order
- Welcome
 - Introductions/Agenda Review
 - Approval of July 2007 Meeting Minutes (Last Inland Area Meeting)
 - Public Comment Period
- Lead: Community Co-chair
- 6:45 – 6:50 Announcements
Review of Action Items
Lead: Navy Co-chair
- 6:50 – 7:30 Committee Reports/Announcements
- RAB Announcements, Reports or other business (Community Co-chair)
 - Remedial Project Managers' (RPM) Update (Navy/EPA/DTSC/RWQCB)
 - City of Concord Update
- 7:30 – 7:40 Break
- 7:40 – 8:05 Military Munitions Response Program (MMRP) Site Prioritization Tables
Presenter: Darren Newton (Navy BRAC Environmental Coordinator)
- 8:05 – 8:25 Presentation: Site 22 Feasibility Study Update
Presenter: Scott Gromko (Navy BRAC RPM)
- 8:25 – 8:30 Meeting Evaluation and Topic Suggestions of Future Meetings
Next RAB Meeting: November 7, 2007
November 2007 Agenda Approval
- 8:30 Adjourn

Next RAB Meetings

- Tidal Area: October 3, 2007
- Inland Area: November 7, 2007

NWSSB DETACHMENT CONCORD RAB Meetings are held the first Wednesday of every month, unless changed. Information regarding the Environmental Restoration program at NWSSB Detachment Concord can be found at: <http://www.bracpmo.navy.mil/brac2005/bracbases/ca/concord/default.aspx> In addition, a public voicemail is available for questions at (925) 246-4020 BRAC Environmental Coordinator: Mr. Darren Newton (619) 532-0963, Darren.newton@navy.mil Community RAB Co-Chair: Mary Lou Williams, MrLou1015@aol.com

ATTACHMENT C

**RESPONSIBILITY FOR ADDITIONAL ENVIRONMENTAL CLEANUP AFTER TRANSFER
OF REAL PROPERTY PRESENTATION
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

SEPTEMBER 5, 2007
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Responsibility for Additional Environmental Cleanup after Transfer of Real Property



CLEANUP PROCESS

- CERCLA and the NCP establish the requirements and procedures for the cleanup of sites that have been contaminated by releases of hazardous substances as a result of Navy activities.
- The Navy and the regulatory agencies select a remedy that provides for protection of human health and the environment in accordance with CERCLA, NCP and the FFA.
- CERCLA requires that a deed for government property transferred outside the government contain a covenant that all necessary remedial actions have been taken.

Notes:

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

NCP – National Oil and Hazardous Substances Pollution Contingency Plan

FFA – Federal Facilities Agreement



What is a Covenant?

BRAC
PMO WEST

Covenant? What's that?

A covenant is a binding agreement.

As applied to the Navy's environmental program, the CERCLA covenant is a promise that all necessary action has been taken, and that the Navy shall conduct any additional remedial action "found to be necessary" after transfer.

DoD policy Responsibility for Additional Environmental Cleanup after Transfer of Real Property dated 25 July 1997 describes the circumstances under which the Navy would perform additional cleanup. This is commonly referred to as the "comeback policy".

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When would the Navy come back ?

BRAC
PMO WEST

Circumstances Under Which the Navy would return to do additional cleanup:

- If the selected remedy is no longer protective
- If the selected remedy failed to provide protection
- If there is a discovery of additional contamination attributable to Navy activities.

4



If the Navy comes back, then what ?

BRAC
PMO WEST

If the Navy comes back, then what?

Consistent with the original remedy, the Navy would perform additional cleanup of Navy contamination as necessary to remedy the problem and adhere to applicable regulatory requirements.

5



When would the Navy not come back ?

BRAC
PMO WEST

Circumstances Under Which the Navy would **NOT** return to do additional cleanup:

- Where the action is only to facilitate a use prohibited by deed restriction.
- Where the action is only to facilitate a use prohibited by intuitional control.

In these circumstances, it is the Navy's position that additional remedial action is not "necessary" within the meaning of CERCLA and the NCP.

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ATTACHMENT D

**NAVY AND U.S. ENVIRONMENTAL PROTECTION AGENCY REMEDIAL PROJECT
MANAGER'S UPDATES
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

SEPTEMBER 5, 2007

(3 Pages)



Navy RPM Update for 5 September 2007 Meeting of Naval Weapons Station Detachment Concord Restoration Advisory Board (RAB)

Summary of Navy BRAC Inland Area Remedial Project Manager (RPM) activities since the last RAB meeting held on Wednesday, 11 July 2007

Installation Restoration/Munitions Response Programs Sites

- 10 - 26 July 2007 – Conducted the SCAPS portion of the Site 29, Building IA-25, field investigation. Several telephone conferences with the regulatory agencies were held to discuss SCAPS results and make real-time decisions for SCAPS step-out locations.
- 11 July through present – Developing Draft Munitions Site Inspection Work Plan/Sample and Analysis Plan (SAP) for 4 MMRP sites; Black Pit at Red Rock, Eagle's Nest EOD Area, Burn Area near HE-5, and Former Inland Burn / Railroad Sidings Excavations Area.
- 12 July 2007 – Navy and regulatory agencies observed Site 29 field work and walked the munitions areas across Bailey Road.
- 16 July 2007 – The Draft Final Annual Site Management Plan (SMP) Update was submitted to the regulatory agencies for review. Concurrence is due 15 September 2007.
- 26 July 2007 – Received comments from regulatory agencies on scoping material for the Site 24A, former Pistol Firing Range, Munitions Site Inspection Work Plan/SAP. The Navy is drafting responses to regulatory agencies comments.
- 8 August 2007 - The first phase of field work for the Site 22A Arsenic Investigation for Magazine Areas 1 through 5 was completed, with the GPS and staking of sampling locations, then the collection of surface soil. The next phase of field work will include direct push technology for soil samples up to 10 feet bsg. The locations for these samples will be based on the results of the surface soil samples. This sampling is anticipated to take place in mid to late September 2007.
- 21 August 2007 – Conducted a Site 22, Main Magazine Area, Feasibility Study scoping meeting with the regulatory agencies. A Site 22 Feasibility Study presentation will be given at the 5 September 2007 RAB meeting.
- 27 August 2007 – The Site 27, Buildings IA-20 and IA-36, Chlordane Investigation Work Plan/SAP was finalized. Distributed the replacement pages 4 September 2007. Field work is scheduled to begin early October 2007.
- 28 August 2007 – Distributed the replacement pages for the Final Site 22, Main Magazine Area, Remedial Investigation Report.
- 29 August 2007 – The Navy received comments from the regulatory agencies on the Draft Community Involvement Plan Update. The Navy is drafting responses to regulatory agencies comments.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

U.S. Environmental Protection Agency
Restoration Advisory Board Update For July and August, 2007
Concord Naval Weapons Station
September 12, 2007

Report for July 2007:

Correspondence Issued:

- * July 17, 2007: EPA Review of Navy's June 14, 2007, Draft Site Management Plan (Inland).
- * July 19, 2007: Email message to D. Newton (Navy). As a follow-up message to July 12 site visit, EPA believes it has located Inland EOD (open detonation)/Site 23A in an aerial photograph; site visit is requested.
- * July 26, 2007: Email message to E. Casados (Navy). EPA has identified partially constructed revetments north of Site 13 (Inland Burn Area) in an aerial photograph; follow-up action requested.

Meetings and Conference Calls:

- * (Inland) RPM Meeting on July 11, 2007: Major Topics: Litigation area FS, Site 1 Landfill, MMRP Ranking
- * (Inland) Site 29 Field Work Regulatory Feedback calls on July 3, 13, 17, and 19. A majority of the calls focused on interpretation and necessary modifications to SCAPs/MIPs sampling locations based upon real-time field screening measurements. The field screening data collected to date suggest a different conceptual site model - not represented by the septic system as the major disposal mechanism for observed groundwater contamination.
- * (Tidal) July 12, 2007, Site Management Plan (SMP) Call: Staff/Management discussion Draft Tidal SMP/EPA comments.

Site Visits:

(Inland) July 12, 2007: Navy, EPA, and DTSC representatives walked areas referred to by the Navy as "HE-58". EPA identified an old road scar on the hillside immediately north of Magazine Bunker HE-58 which suggests that the missing Inland EOD area/Site 23A may be an area not previously walked- follow-up needed.

Report for August 2007:

Meetings and Conference Calls:

- * (Tidal) August 1, 2007, RPM Meeting
- * (Tidal) August 2, 2007: Litigation Area Feasibility Study - Alternatives Ranking meeting.
- * (Inland) August 21, 2007: Site 22 (Main Magazine Area) Feasibility Study scoping meeting - general agreement on FS alternatives.
- * (Tidal) August 22, 2007; Tidal Area Site Management Plan call: EPA requested schedule changes to draft final SMP.
- * (Inland) August 23, 2007: Site 27 Draft Final Sampling Plan call. Navy-Regulators discuss final issues on sampling plan - EPA is in general agreement on SAP -final approval of SAP in preparation.
- * (Inland) August 29, 2007; Community Involvement Plan (CIP) call: EPA provided oral comments on the Draft CIP.

Site Visit:

(Inland) September 5, 2007: Team to inspect site identified by EPA and believed to be the Inland Explosives Open Detonation (EOD)/Site 23A and inspect suspect revetments north of Inland Area Site 13 (Former Open Burn Area), that were also identified by EPA.

Prepared by:

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ATTACHMENT E

**MILITARY MUNITIONS RESPONSE PROGRAM (MMRP)
SITE PRIORITIZATION TABLES ACRONYMS LIST
RESTORATION ADVISORY BOARD MEETING
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA**

SEPTEMBER 5, 2007

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Acronym List
Military Munitions Response Program Prioritization
Explosive Hazard Evaluation Tables

ADA	Air Defense Artillery
AOC	Area of Concern
BRAC	Base Realignment and Closure
EHE	Explosive Hazard Evaluation
ESA	Endangered Species Act
EOD	Explosive Ordnance Disposal
DOD	Department of Defense
DMM	Discarded Military Munitions
HE	High Explosive
HEAT	High Explosive Antitank
HMX	Cyclotetramethylene-tetranitramine
MMRP	Military Munitions Response Program
MC	Munitions Constituents
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
OB/OD	Open Burn/Open Detonation
PA	Preliminary Assessment
RDX	Cyclotrimethylenetrinitramine
SI	Site Inspection
TNT	Trinitrotoluene
UXO	Unexploded ordnance
WP	White Phosphorous

ATTACHMENT F

SITE 22 FEASIBILITY STUDY UPDATE

RESTORATION ADVISORY BOARD MEETING

NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, CALIFORNIA

SEPTEMBER 5, 2007

(15 Pages)



Concord Naval Weapons Station

**BRAC
PMO**

Naval Weapons Station Seal Beach Detachment Concord

IRP Site 22 Feasibility Study Report Main Magazine Area

Scott Gromko, Navy Remedial Project Manager

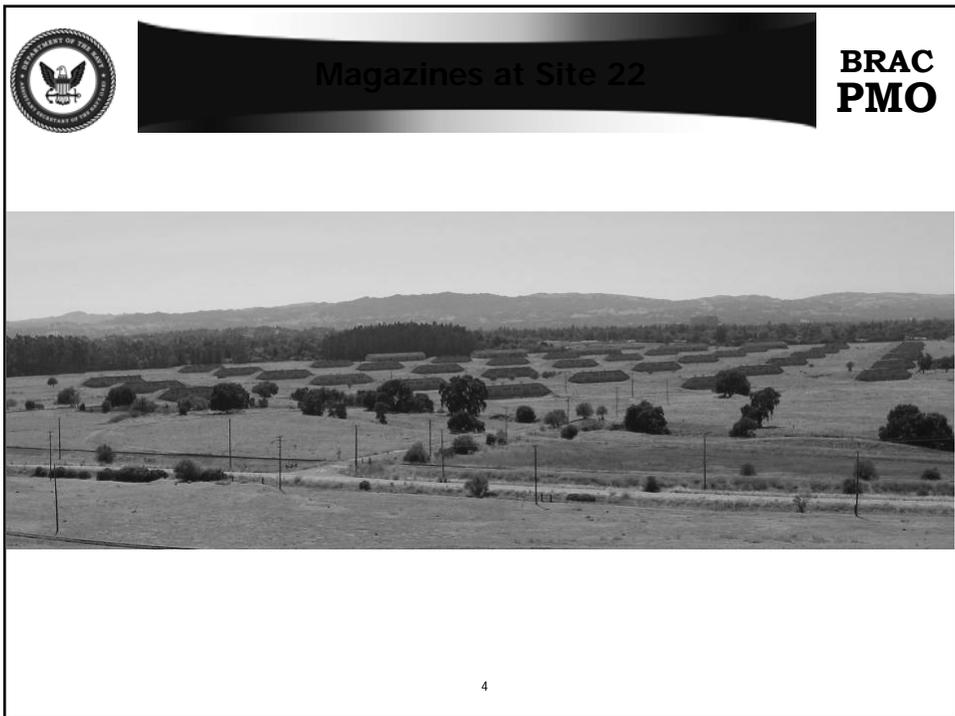
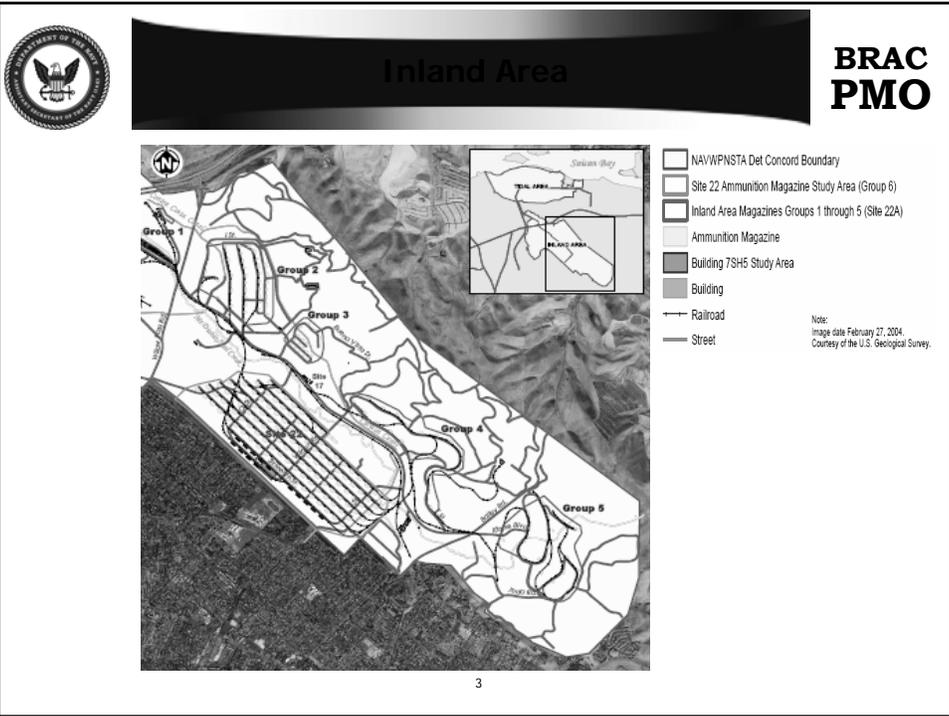
Restoration Advisory Board Meeting
September 5, 2007



Presentation Overview

**BRAC
PMO**

- Site Description and Review of Site 22 History
- Review of Remedial Investigation Results
 - Nature and Extent of Contamination
 - Human Health Risk Assessment
 - Ecological Risk Assessment
- Feasibility Study Report
 - Development of Remedial Action Objective
 - Screening of Preliminary Remedial Technologies and Process Options
 - Development of Remedial Action Alternatives
- Questions





Site 22 Description

**BRAC
PMO**

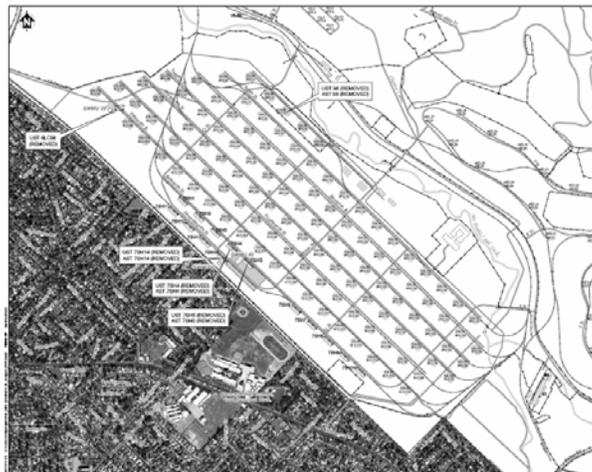
- Site 22 consists of one magazine area, Group 6, which includes:
 - 531 acres
 - 14 buildings
 - 116 magazines
 - 4 former ASTs and 5 former USTs

A portion of Mt. Diablo/Seal Creek and Clayton Canal cross the site



Site 22 Main Magazine Area

**BRAC
PMO**





Areas Evaluated During Remedial Investigation

**BRAC
PMO**

- Building 7SH5 Area
- Magazine Area
- Double Fence Line Area
- Clayton Canal
- Mt. Diablo/Seal Creek

7



Site Features

**BRAC
PMO**



Building 7SH5 Area

- Built in 1944 to store inert equipment
- In 1957 converted to test missile components
- Used in 1970s for paint stripping, cleaning, and painting missile components

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Site Features

**BRAC
PMO**



Magazine Area

- In 1945, 91 magazines built at Site 22
- In 1953, an additional 23 magazines were built around the site perimeter
- Construction date for 2 magazines is unknown
- Magazines used to store ammunitions and explosives until 2000

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Site Features

**BRAC
PMO**



Double Fence Line Area

- Two chain-link fences separate Site 22 from the residential area and Concord High School to the southwest
- Utility corridor traverses this area

10



Site Features

**BRAC
PMO**



Clayton Canal

- Canal 4.85 miles long
- Managed by Contra Costa Water District
- Used to deliver water to CCWD customers
- Abandoned in 1985 and overgrown with vegetation



Mt. Diablo/Seal Creek

- Traverses the eastern and southeastern portion of Site 22
- Provides some riparian habitat
- Flows to the northwest, but seasonally dries up

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Review of Site 22 History

**BRAC
PMO**

- Herbicides containing arsenic were applied around the magazines to control weeds and reduce fire hazards
- The ASTs have been removed
- The USTs have NFA determinations from CCCHSD or Water Board closure
- Groundwater investigation at Building 7SH5 Area
- The buildings and magazines are not in use

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Remedial Investigation

**BRAC
PMO**

- Nature and Extent Evaluation
 - Arsenic concentrations are elevated in surface soils in the magazine area
 - Arsenic concentrations in Mt. Diablo/Seal Creek are below background and along the double fence line are generally below background levels (background Arsenic is 10 mg/kg)
 - Concentrations of volatile organic compounds in groundwater are below federal MCLs; no further action is required

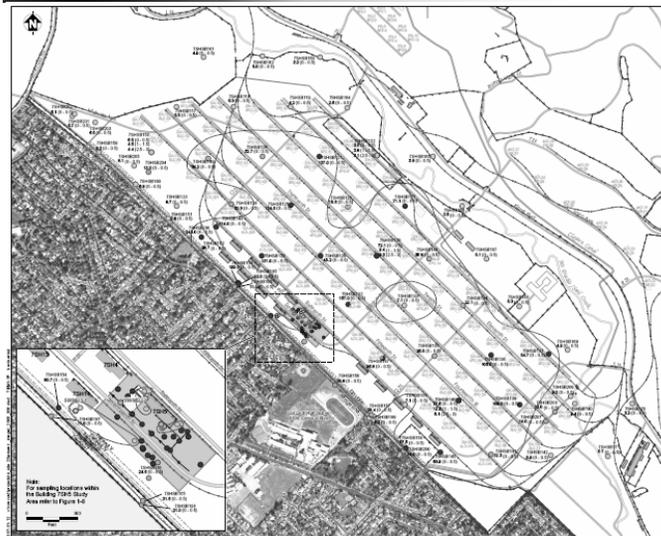
Note - groundwater monitoring is ongoing until a Record of Decision is signed

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Arsenic Distribution in Surface Soil

**BRAC
PMO**



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Human Health Risk Assessment

**BRAC
PMO**

- Current Receptors
 - Cattle Rancher in unpaved portions of Building 7SH5 Area and in the Magazine Area
 - Agricultural worker in Double Fence Line Area

- Future Receptors (Building 7SH5 Area, Magazine Area, and Double Fence Line Area)
 - Commercial/industrial worker
 - Construction worker
 - Resident

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Human Health Risk Assessment

**BRAC
PMO**

- Conclusions
 - Risks to the current cattle rancher and agricultural worker were within the risk management range
 - Risks to future commercial/industrial and construction workers were within the risk management range
 - Risks to the future resident are above the risk management range

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Ecological Risk Assessment

**BRAC
PMO**

- Ecological receptors evaluated at Site 22 included:
 - Plants
 - Invertebrates
 - Amphibians
 - Birds (American robin and red-tailed hawk)
 - Mammals (California ground squirrel, Western harvest mouse, black-tailed deer, and gray fox)
- Conclusion: No chemicals, including arsenic, pose unacceptable risk to ecological receptors at Site 22

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Remedial Investigation

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- Conclusions
 - Concentrations of arsenic in surface soil (0 to 0.5 feet bgs) pose an unacceptable risk to future residents
- Recommendations
 - Evaluate remedial alternatives in an FS to address human health risks associated with arsenic in surface soil at Site 22

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Feasibility Study Process

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- Identify remedial action objectives and applicable regulations
- Identify and screen treatment technologies
- Develop and evaluate alternatives against seven of the nine NCP criteria
- Perform comparison of remedial alternatives

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Remedial Action Objectives

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- Prevent exposure of potential future residents to arsenic in surface soils at Site 22 through inhalation, ingestion, and dermal contact with soils containing arsenic above the arsenic background concentration of 10 mg/kg developed for NAVWPNSTA Seal Beach Det Concord.

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General Response Actions and Remedial Technologies

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- Engineering Controls
 - Covers
 - Containment
- Institutional Controls
 - Legal Mechanisms
- Active Remediation
 - Removal
 - In situ biological, physical, and chemical treatments
 - Ex situ biological, physical, and chemical treatments



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Technology Screening Process

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- Criteria
 - Effectiveness
 - Implementability
 - Cost
- Technologies Retained
 - Engineering Controls
 - Containment
 - Institutional Controls
 - Legal Mechanisms
 - Active Remediation
 - Removal

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Remedial Alternatives

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- Alternative 1: No Action
- Alternative 2: Institutional Controls
- Alternative 3: Excavation and Off-Site Disposal
- Alternative 4: Excavation, On-Site Containment, and Institutional Controls

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Alternative 1: No Action

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- Required in the NCP
- Used as a baseline for comparison purposes only
- Site is considered unchanged
- No response actions would be implemented

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Alternative 2: Institutional Controls

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- Administrative or legal control to prevent or reduce human exposure to on-site contamination
- May include land use restrictions and covenants to restrict use of the property

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Alternative 3: Excavation and Off-Site Disposal

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- Excavate surface soil from 0 to 0.5 feet bgs
- Area to be excavated approximately 400 acres
- Magazines would not be removed
- Excavated soil would meet criteria for nonhazardous waste disposal
- Site would be backfilled

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Alternative 4: Excavation, On-Site Containment and Institutional Controls

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PMO**

- Excavate surface soil from 0 to 0.5 feet bgs
- Area to be excavated approximately 400 acres
- A corrective action management unit (CAMU) would be placed on approximately 33 acres of the site to consolidate and contain excavated soil
 - CAMU would be 5 feet above ground surface and 5 feet bgs
 - Approximately 33 magazines would be removed
- Areas outside CAMU would be backfilled

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Evaluation Against NCP Criteria

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- Threshold Criteria
 - Overall protectiveness of human health and the environment
 - Compliance with applicable or relevant and appropriate requirements (ARAR)
- Primary Balancing Criteria
 - Long-term effectiveness and permanence
 - Reduction of toxicity, mobility, or volume through treatment
 - Short-term effectiveness
 - Implementability
 - Cost
- Modifying Criteria
 - Community acceptance (evaluated after proposed plan)
 - State acceptance

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Schedule for Site 22

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- December 15, 2007 – Submit Draft FS Report and fact sheet to regulatory agencies and community
- February 10, 2008 – Comments due on Draft FS Report
- April 13, 2008 – Submit Draft Final FS Report
- May 13, 2008 – Submit Final FS Report

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Questions ?

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