



TETRA TECH EM INC.

June 29, 2006

Dear RAB Members,

On behalf of the Navy, enclosed please find the May 3, 2006 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
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD
CONCORD, CALIFORNIA
MAY 3, 2006

These minutes reflect general issues raised, agreements reached, and action items identified at the Restoration Advisory Board (RAB) meeting for Naval Weapons Station Seal Beach Detachment Concord (NAVWPNSTA Seal Beach Det Concord), California. The meeting was held from 6:30 p.m. to 9:00 p.m. on May 3, 2006, at the City of Concord Permit Center, Building D in Concord, California. Agreements and action items are described by topic under Sections I through VII and are summarized in Section VIII. 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. Jerry Dunaway (Navy Base Realignment and Closure [BRAC] Environmental Coordinator [BEC]) introduced himself and announced that Rick Weissenborn (Navy) will be taking over as BEC of NAVWPNSTA Seal Beach Det Concord. Mr. Weissenborn will attend the June 7, 2006 RAB meeting.

Public Comments

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

June 2006 RAB Agenda Approval

Kim Jacobsen (Navy RAB Co-chair) reviewed the proposed agenda for the RAB meeting on June 7, 2006. The meeting will take place in the Concord Police Station's Community Room. The Navy plans to provide two presentations for the June 2006 RAB meeting which include:

- Budget and Site Management Plan (SMP) Amendments for the Tidal and Inland Areas
- Litigation Area Feasibility Study

Ms. Jacobsen asked the RAB to approve the June 2006 agenda. The RAB approved the agenda.

II. MARCH AND APRIL 2006 RAB MEETING MINUTES APPROVAL

Ms. Jacobsen asked the RAB for comments on the minutes from the meeting on the March 1, 2006 and April 5, 2006. There was not a quorum of RAB members present to vote on approval of the meeting minutes. The approval of the March 2006 and April 2006 RAB meeting minutes

will be tabled until the June 7, 2006 meeting.

Action Items

1. The RAB will approve the March 1, 2006 RAB meeting minutes at the June 7, 2006 meeting.
2. The RAB will approve the April 5, 2006 RAB meeting minutes at the June 7, 2006 meeting.

III. COMMITTEE REPORTS AND ANNOUNCEMENTS

Ms. Williams opened the floor for committee reports and announcements. Ms. Williams distributed RAB applications that were submitted by two interested community members. Ms. Williams introduced the two candidates and requested that they provide a brief update on their background and why they are interested in joining the RAB.

Cindy Welles (Clyde resident) has been a resident of Clyde, California for the past 30 years. Ms. Welles is interested in learning more about the water from the base flowing into the Mount Diablo/Seal Creek.

Scott McConnell (Clyde resident) has been a resident of Clyde, California for the past 18 years. Mr. McConnell is interested in receiving more information on Mount Diablo/Seal Creek and how the facility impacts creek cleanup efforts.

IV. REMEDIAL PROJECT MANAGER (RPM) UPDATE

Navy Update

Ms. Jacobsen reviewed the Navy RPM update (Attachment C).

Tidal Area

Ms. Jacobsen stated that the Navy issued the Draft Year 1 Monitoring Technical Memorandum for the Litigation Area Sites for agency review on April 12, 2006. Igor Skaredoff (Martinez resident) asked for a brief summary of the general results of the document. Joanna Canepa (Tetra Tech EMI [TtEMI]) explained that the report provides results for 2005-2006 monitoring of groundwater, surface water, sediment, and vegetation communities. Ms. Canepa stated that the sediment, surface water, and groundwater sample results were similar to previous monitoring events at the Litigation Area. Elevated levels of copper and zinc are the primary contaminants of concern at the site. Mr. McConnell asked why there are elevated metals in the samples taken in the Litigation Area. Ms. Canepa stated that the site was contaminated with heavy metals when Navy purchased the properties in the 1960s and 1970s from previous owners. The site is surrounded by former and current chemical companies that have been at the site since the early 1900s. Kent Fickett (Mount Diablo Audubon Society) asked if there are any sort of legal

obligations of the neighboring chemical companies to cleanup the surrounding areas. Ms. Canepa explained that there was litigation between the Navy, neighbors, and previous property owners that resulted in a Consent Decree that outlined the cleanup responsibilities of each party. The Department of Toxic Substances Control (DTSC) has taken the lead for cleanup and investigation of the abandoned Chemical and Pigment site. DTSC is currently overseeing the environmental condition of the General Chemical site through the Resource Conservation and Recovery Act permitting program.

Ms. Jacobsen stated that the Navy issued a letter to EPA regarding the informal dispute resolution on the Draft Final Remedial Action Work Plan, Landfill Cover at the Tidal Area Landfill Site 1 on April 20, 2006. Mr. Skaredoff asked for a description of the issues involved in the informal dispute between EPA and the Navy. Ms. Jacobsen stated that EPA recommended modifying the design of the proposed landfill gas monitoring vents so that they could also be used to monitor groundwater levels. The Navy has met with their landfill contractors to discuss EPA's request and has agreed to modify the plan as requested.

Inland Area

Mr. Dunaway stated that the Navy attended the Mount Diablo Watershed Creek site tour on April 8, 2006. Starting in June 2006 Mr. Weissenborn will begin the position of BEC for NAVWPNSTA Seal Beach Det Concord.

Mr. Dunaway stated that the RPMs met on April 18, 2005 to discuss the Site 22 Remedial Investigation. Mr. McConnell asked what the Site 22 meeting accomplished. Mr. Ramsey stated that the RPM meeting was to scope the Remedial Investigation that is currently being prepared for Site 22.

Mr. Dunaway stated that the RPMs met on April 6, 2006 to discuss the underground storage tank (UST) program at both the Inland and Tidal Areas.

Ms. Jacobsen stated that if anyone needs to reach the Navy that there is a local phone number [(925) 246-4020] where message can be left; messages are checked frequently by the Navy. The phone number is also listed on the NAVWPNSTA Seal Beach Det Concord website. John Kaiser (San Francisco Bay Regional Water Quality Control Board [Water Board]) reminded the Navy that all of the contact information for the team needs to be updated on the website with the new team contact information. Ms. Jacobsen stated that the Navy is working out who is responsible for maintaining the website and will get it updated soon.

Jessica Hamburger (Contra Costa Resource Conservation District) thanked the Navy for hosting their site tour. More community groups are interested in having site tours now that the Inland Area will be transferred to the City of Concord. Mr. Dunaway stated that the Navy has received multiple requests for site tours. The Navy is working with the City of Concord to provide them access to the base so they can host the site tours. John Montag (City of Concord) stated that he will coordinate with the groups interested in site tours.

EPA Update

Mr. Ramsey reviewed the EPA RPM update (Attachment C).

Mr. Ramsey announced that David Cooper (EPA Community Involvement Coordinator) went to Kuwait for the next 1.5 years to fulfill U.S. Army Reserve duties. Mr. Cooper will return to EPA in the fall of 2007. Mr. Ramsey introduced Luis Garcia (EPA) as the interim Community Involvement Coordinator. Once a permanent Community Involvement Coordinator from EPA has been determined, Mr. Ramsey will notify the RAB.

Mr. Ramsey stated that EPA provided the Navy with two official letters during the month of April 2006 including:

- EPA's approval of the Navy's April 11, 2006, SMP extension request for the Site 27 Record of Decision (ROD) was issued on April 17, 2006.
- Informal comments on the Navy's preliminary response to agency comments on the Military Munitions Response Program (MMRP) preliminary assessment (PA) on April 24, 2006.

Mr. Ramsey provided an overview of EPA's comments on the MMRP PA. The Black Pit at Red Rock Site is near the Magazine Areas. Mr. Ramsey stated that EPA is recommending that the Navy verify if munitions were used at the Black Pit at Red Rock Site. Mr. McConnell asked if Black Pit at Red Rock is near the creek. Mr. Ramsey confirmed that the creek is near the site.

Mr. Ramsey stated that in the MMRP PA that Navy had recommended no further action for Site 23A. Mr. Ramsey has recommended that the Navy further evaluate the site history of 23A to determine whether explosives were used. EPA has asked for additional information on 5 more sites discussed in the MMRP. Mr. Ramsey stated that the Navy needs to sample for a larger suite of chemicals in the MMRP as well as the Installation Restoration program. Ms. Jacobsen stated that the Navy is currently considering EPA's comments on the MMRP PA.

Mr. Ramsey stated that EPA provided the Navy with comments on the Tidal Area Sites 2, 9, and 11 Sampling and Analysis Plan on April 27, 2006. EPA has requested that the Navy take more sediment samples near the Otter Slough. EPA also provided the Navy with comments on the proposed sampling locations and asked for some of the sampling locations to be moved. Mr. McConnell asked when EPA provides comments on sampling locations if there is someone that makes sure that all of the sampling locations are correctly placed. Mr. Ramsey stated that the Navy provides a draft final of each document for the agencies to make sure that their comments have been addressed before any of the sampling takes place. Ms. Jacobsen stated that the Navy does not provide their contractor a map with the sampling locations until the Navy and agencies have agreed to the final locations, and that the contractors use global positioning systems or surveyors to correctly identify sampling locations.

Mr. Ramsey announced that the data from Magazine Areas A-D will not be addressed in the Site 22 Remedial Investigation (RI). Mr. Dunaway stated that due to some contractual and funding

obligations to meet the Site 22 RI schedule the Navy has put the Magazine Areas A-D on a separate track. The Navy is anticipating combining Site 22 and the Magazine Areas A-D during the feasibility study phase.

Mr. Ramsey stated that EPA participated in a RPM meeting on April 21, 2006 that discussed the Litigation Area Feasibility Study.

Water Board Update

Alan Friedman (Water Board) stated that he is getting up to speed on NAVWPNSTA Seal Beach Det Concord projects. The Water Board provided the Navy with comments on the Draft Final Remedial Action Work Plan for the Tidal Area Landfill Site 1. Mr. Friedman announced that there is a new member of the Water Board team that is a wetland expert that will assist him in reviewing documents related to wetland restoration.

Mr. Friedman stated that he attended all of the RPM meetings that occurred during April 2006. Mr. Friedman met with the Navy on April 6, 2006 to discuss the NAVWPNSTA Seal Beach Det Concord UST program. Mr. McConnell asked how many of the USTs at NAVWPNSTA Seal Beach Det Concord have been removed. Mr. Friedman stated that most of the USTs were removed 10 to 15 years ago.

DTSC Update

Jim Pinasco (DTSC) stated that he submitted comments to the City of Concord on their Inland Area Reuse Plan. DTSC recommended that the City of Concord examine the cleanup costs for all of the different reuse alternatives for the Inland Area prior to making any decisions. Mr. Pinasco agreed to send the DTSC comments on the City of Concord's Reuse Plan of the Inland Area to the RAB via e-mail. Mr. Fickett asked if the Navy is responsible for the cleanup costs of the Inland Area. Mr. Dunaway stated that there are different methods of cleanup either before or after the transfer of land to the city. Regardless of the cleanup plan that the Navy and City of Concord agree on, the Navy will be responsible for funding the cleanup.

Action Item

3. Mr. Pinasco will send the DTSC comments on the City of Concord's Reuse Plan of the Inland Area to the RAB via e-mail.

V. RAB MEMBER APPLICATION REVIEW

Ms. Williams stated that the RAB members discussed the two new applications they received and have decided to postpone approving new members until next month. There are an additional two community members that have expressed interest in submitting applications.

VI. SITE 13 GROUNDWATER DATA

Penny Wilson (TtEMI) provided the RAB a presentation on the Site 13 groundwater data (Attachment D).

Mr. Fickett asked when Site 13 was actively used. Ms. Jacobsen stated that Site 13 was last used by the Navy between 15 and 20 years ago. Mr. Fickett asked if the Navy has looked at the migration rate of groundwater for the past 20 years when they placed their wells. Ms. Wilson stated that there are calculations that address migration that are used when deciding on well locations. Mr. Fickett asked if the Navy has looked into whether contaminants from groundwater onsite have dissipated offsite. Mr. Dunaway stated that the Navy would only be speculating to determine if contaminants have migrated offsite in the groundwater, and that all concentrations observed to date at the site indicate that there are no unacceptable levels of contaminants in groundwater.

Mr. McConnell asked if the Navy had collected any groundwater samples directly under the Burn Area. Ms. Wilson confirmed that the Navy did install wells and analyze groundwater samples in the Burn Area. Mr. McConnell asked if there is concern that perchlorate levels will increase at Site 13 if soil is moved during future redevelopment, such as digging trenches for utilities. Ms. Wilson stated that the groundwater level at Site 13 ranges from 7 to 30 feet. Mr. Dunaway stated that the City of Concord will dewater the site if they reach groundwater when digging utility trenches, and that it is highly unlikely that perchlorate levels would be affected by future reuse.

Mr. Skaredoff asked if the Navy found elevated concentrations of perchlorate on the furthest end of Site 13. Ms. Wilson stated that perchlorate concentrations on the furthest end of Site 13, and throughout the site, are very low. Mr. Dunaway stated that when sampling, the instruments have a hard time differentiating perchlorate versus the other naturally occurring salts in the soil, and that the levels detected in groundwater at Site 13 are at the lower limits of detectability. Mr. Skaredoff asked if there is anything in the Site 13 groundwater data that is of concern. Mr. Dunaway stated that all of the concentrations of perchlorate were so low that there is not a need for concern.

Mr. Fickett asked the Water Board if they are concerned with migration of perchlorate offsite. Mr. Friedman stated that the low concentrations onsite make it less likely that perchlorate has migrated offsite.

VII. INLAND AREA MAGAZINE ARSENIC DATA

Ms. Wilson provided a presentation on the arsenic data recently collected from the Inland Area Site 22 magazines and magazine Areas A-D (Attachment E).

Mr. Fickett asked how high the arsenic risk is and if there is a pathway for ingestion of arsenic contaminated groundwater. Mr. Dunaway stated that arsenic is bound in the top layers of surface soil. Detectable levels of arsenic are not present in the groundwater in the Site 22 Magazine Area so there is minimal risk of ingesting arsenic through the groundwater.

Ms. Hamburger stated she has concern that children will be exposed to arsenic in the soil. Mr. Dunaway stated that the calculations to determine risk of arsenic consumption is measured by resident children eating grams of soil on a daily basis, and that the Navy is currently preparing a human health risk assessment to quantify those potential risks.

Anna Rikkelman (Concord resident) asked if the Navy knew about sampling that was done in the backyards the neighbor Site 22. Mr. Dunaway stated that he was not aware of any sampling that was done in the neighboring backyards. Ms. Rikkelman asked if DTSC is applying their policies for investigation of arsenic at school sites. She added that there is a park near the base fenceline that children frequent. Mr. Pinasco said that he would check in with the DTSC section that deals with school sites for more information on their practices.

Mr. Fickett asked where the storm water onsite ends up. Mr. Ramsey stated that water on site generally flows in the direction of Mount Diablo/Seal Creek. Ms. Hamburger stated that she has a map of the storm drain out falls if anyone is interested in looking at it.

Mr. Fickett asked when the Navy applied pesticides to the Inland Area. Mr. Dunaway stated that pesticides were applied to the Inland Area in the 1940's.

Mr. Skaredoff stated it seems that the Navy has done their due diligence to sample for arsenic in the soil at the Inland Area. If there are elevated levels of arsenic in the soil in the community it may be the responsibility of the residents of Concord.

Mr. Montagh announced that the City of Concord is having a reuse workshop open to the public on May 6, 2006. The City of Concord is interested in getting feedback from the public on what they would like to see for reuse of the Inland Area. Mr. Montagh invited the RAB members to attend the workshop.

Action Item

4. Mr. Pinasco will check in with the DTSC section that deals with school sites for more information on their arsenic investigation practices.

VIII. NEXT MEETING AND ACTION ITEMS

The next RAB meeting is scheduled for 6:30 to 8:30 p.m. on Wednesday, June 7, 2006 in the Concord Police Station Community Room.

The following action items were generated during the RAB meeting on May 3, 2006:

No.	Action Item	Target Date for Completion	Completion Date (or Status)
1	The RAB will approve the March 1, 2006 RAB meeting minutes at the June 7, 2006 meeting.	6/7/06	This action item was completed
2	The RAB will approve the April 5, 2006 RAB meeting minutes at the June 7, 2006 meeting.	6/7/06	This action item was completed
3	Mr. Pinasco will send the DTSC comments on the City of Concord's Reuse Plan of the Inland Area to the RAB via e-mail.	6/7/06	TBD
4	Mr. Pinasco will check in with the DTSC section that deals with school sites for more information on their arsenic investigation practices.	6/7/06	TBD

ATTACHMENT A

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

MAY 3, 2006
(One Page)

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

MAY 3, 2006

<u>Name</u>	<u>Affiliation</u>	<u>Telephone</u>
Wayne Akiyama	Shaw Environmental, Inc.	(925) 288-2003
Beth Byrne	Concord Resident	(925) 686-4815
Harry Byrne	Concord Resident	(925) 686-4815
Joanna Canepa	TtEMI	(425) 673-3652
Jerry Dunaway	Navy, IPT West	(619) 532-0975
Kent Fickett	Mount Diablo Audubon Society	(925) 254-5156
Alan Friedman	Water Board	(510) 622-2347
Ernie Galang	IPT West	(650) 746-7469
Louis Garcia	EPA	(415) 972-3237
Jessica Hamburger*	CCRD	(925) 672-6522 X118
Carolyn Hunter	TtEMI	(415) 222-8297
Kim Jacobsen	Navy, NAVFAC Southwest	(619) 532-1448
John Kaiser	Water Board	(510) 622-2368
Curtis Lindsog	Shaw Environmental, Inc.	(925) 288-2003
Scott McConnell	Clyde Resident	(925) 676-7092
John Montagh	City of Concord	(925) 671-3082
Jim Pinasco	DTSC	(916) 255-3719
Phillip Ramsey	EPA	(415) 972-3006
Anne Rikkelman	Concord Resident	(925) 689-2662
Igor Skaredoff*	Martinez Resident	(925) 229-1371
Steve Tyahla	The Source Group Inc.	(925)
Cindy Welles	Clyde Resident	(925) 685-2698
Mary Lou Williams*	Concord Resident	(925) 685-1415

Notes:

<p>*</p> <p>CCRD</p> <p>DTSC</p> <p>EPA</p> <p>IPT West</p> <p>TtEMI</p> <p>Water Board</p>	<p>Community Restoration Advisory Board (RAB) Member</p> <p>Contra Costa Conservation Resource District</p> <p>Department of Toxic Substances Control</p> <p>U.S. Environmental Protection Agency</p> <p>U.S. Navy Integrated Project Team West, NAVFAC SW</p> <p>Tetra Tech EM Inc.</p> <p>San Francisco Bay Regional Water Quality Control Board</p>
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ATTACHMENT B

AGENDA

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

MAY 3, 2006

(One Page)

AGENDA

NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD RESTORATION ADVISORY BOARD MEETING

Wednesday, May 3, 2006

6:30 p.m. – 8:30 p.m.

Location: City of Concord Permit Center - 1950 Parkside Drive - Concord, CA 94520

- 6:30 – 6:40 Call to Order
- Welcome
 - Introductions
 - Public Comments
 - June Agenda Approval (note – back at Police Station)
- Lead: Community Co-chair
- 6:40 – 6:50 Approval of March 1, 2006 and April 5, 2006 Meeting Minutes
Review Unresolved Business
Lead: Navy Co-chair
- 6:50 - 7:30 Committee Reports/Announcements
- RAB Announcements, Reports or other business
 - Remedial Project Managers' Update (Navy/EPA/DTSC/RWQCB)
- 7:30 – 7:40 Break
- 7:40 – 8:30 Inland Magazine Area Arsenic Data and Site 13 Groundwater Data
Presenter: Jerry Dunaway, BRAC Program Management Office West, and Penny Wilson, Tetra Tech EM, Inc.
- 8:30 Adjourn

ATTACHMENT C

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

MAY 3, 2006

(2 Pages)



Navy RPM/BCT Update for 3 May 2006 Meeting of Naval Weapons Station Seal Beach, Detachment Concord Restoration Advisory Board (RAB)

Summary of Navy Remedial Project Manager (RPM) Activities since the last RAB Meeting held on Wednesday, 5 April 2006.

Tidal Area

- **12 April 2006** – The Navy issued the Draft Year 1 Monitoring Technical Memorandum for the Litigation Area sites. This document summarizes the results of the long-term monitoring fieldwork performed at the site from 2005 to 2006.
- **20 April 2006** – The Navy issued a letter responding to USEPA's Informal Dispute Resolution on the, Draft Final Remedial Action Work Plan, Landfill Cover, Tidal Area Landfill (Site 1). Responses were coordinated with USEPA prior to submission. (Distributed to copy recipients by email 2May2006)
- **21 April 2006** – The Navy met with project managers from USEPA, DTSC, DFG, and the SWBRWQCB to discuss the draft final Supplemental Feasibility Study for the Litigation Area sites.
- **24 April 2006** – The Navy issued Final Meeting Minutes for the February 6, 2006 Remedial Project Managers meeting.

Inland Area

- **17 April 2006** – The Navy issued a notification letter regarding Final Record of Decision, Inland Area Site 17 signature on February 1, 2006.
- **18 April 2006** - The Navy met with the project managers from USEPA, DTSC, and the SFBRWQCB to discuss the draft Remedial Investigation for Site 22, the Magazine Area.

Tidal and Inland Areas

- **6 April 2006** – The Navy met with the project manager from SWBRWQCB to discuss the Tank Program Status sites.
- **26 April 2006** – The Navy distributed draft Agenda and Meeting Minutes for May 3, 2006 RAB by email.
- **3 May 2006** – The Navy met with the project managers from USEPA, DTSC, DFG, and the SFBRWQCB. This was our regular monthly meeting.



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

U.S. Environmental Protection Agency
Restoration Advisory Board Update
May 3, 2006

Correspondence Issued:

- April 17, 2006: EPA approval of the Navy's April 11, 2006, Site Management Plan (SMP) Extension Request for Site 27 (Former Chemical and Materials Testing Lab). The extension revises a Draft Record of Decision deliverable due date from April 18, until July 17, 2006.
- Email correspondence dated April 24, 2006: EPA provided informal comments in response to Navy's March 6, "Preliminary Response to Regulatory Agency Comments on Draft Preliminary Assessment..."
- April 27, 2006: EPA review of February 23, 2006, "Draft Data Gaps Sampling and Analysis Plan...Tidal Area Sites 2, 9, and 11..."

Meetings/Site Visits:

- April 4, 2006, RPM Meeting:
- April 5, 2006, RAB Meeting:
- April 18, 2006: Site 22 Data Evaluation and Risk Assessment Meeting
- April 21, 2006: Litigation Area Feasibility Study Meeting
- May 3, 2006, RPM Meeting:
Major Topics:
Site Management Plan/Budget; BRAC Process for Lead-Based Paint and Asbestos
- May 3, 2006 RAB: Major Topic - Site 22

Prepared by:

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ATTACHMENT D

**SUMMARY OF QUARTERLY GROUNDWATER DATA AT SITE 13
RESTORATION ADVISORY BOARD MEETING PRESENTATION
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD,
CALIFORNIA**

MAY 3, 2006

(6 Pages)

**Installation Restoration Site 13
Naval Weapons Station Seal Beach,
Detachment Concord
Summary of Quarterly Groundwater Data**

May 3, 2006



Presentation Overview



- **Review of Site 13 Setting**
- **Overview of Sampling Results from 2005-2006
Quarterly Groundwater Sampling**
- **Next Steps**



Site Background



- Historically used for ordnance destruction and training firefighters
- Residual contaminant of concern is perchlorate in groundwater
- Perchlorate is a solid propellant for rockets, missiles, and fireworks. It is also used in matches, flares, pyrotechnics, ordnance, and explosives.

2



Site 13 Sampling 2005-2006



Study Question: Is perchlorate in groundwater present at Site 13 at unacceptable levels?

Field Work: Installation of 4 new groundwater wells and analysis of perchlorate in 8 total groundwater wells. Four sampling events:

- **August 2005**
- **November 2005**
- **February 2006**
- **May 2006 (planned)**

3



Site 13 Sampling 2005-2006



Site 13 Sampling 2005-2006





Site 13 Quarterly Sampling Results To Date

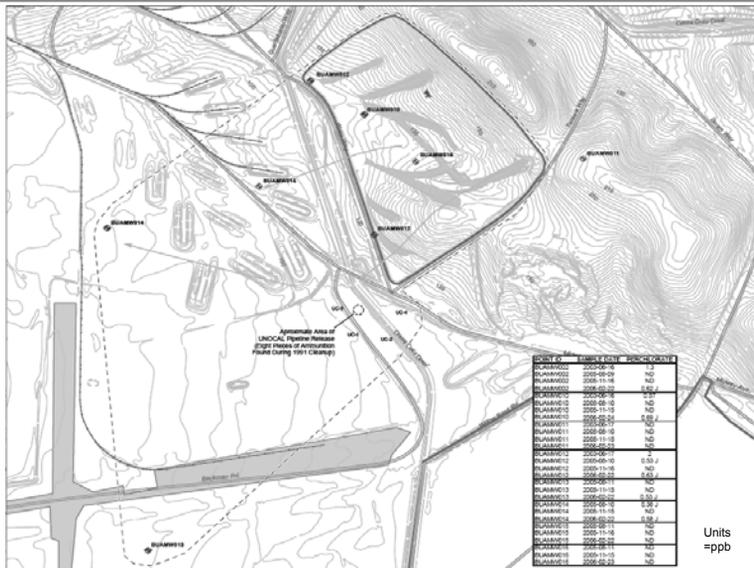


- No wells show elevated perchlorate in groundwater
- Perchlorate detected at low levels in 5 of 8 wells
- Maximum concentration detected during quarterly events: 0.69 parts per billion (ppb)
- EPA Drinking Water Equivalent Level: 24.5 ppb
- California Public Health Goal: 6 ppb

6



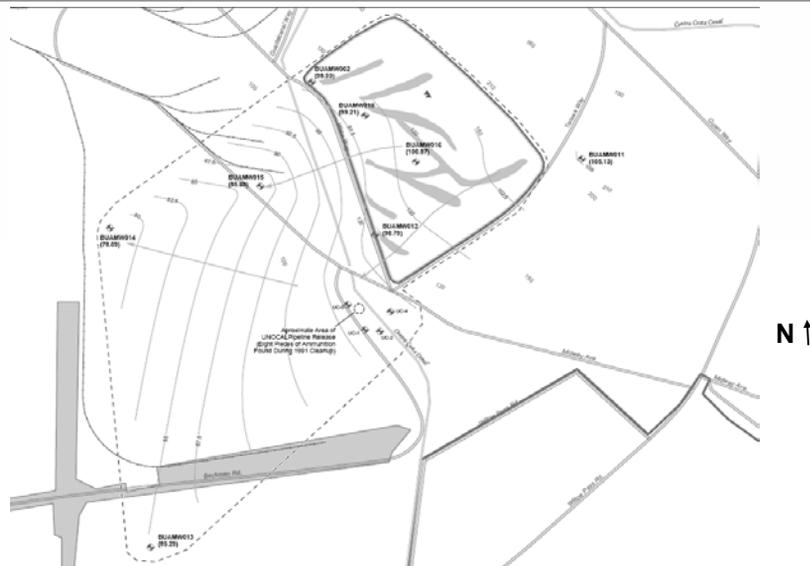
Site 13 Burn Area



7



Direction of Groundwater Flow



8



Next Steps



- **May 2006: 4th Quarterly Sampling Event Planned**
- **July 2006: 4th Quarter data available**
- **Investigate Site 13 under the Munitions Response Program**

9



Questions



ATTACHMENT E

**REMEDIAL INVESTIGATION AT SITE 22 – MAGAZINE AREA
RESTORATION ADVISORY BOARD MEETING PRESENTATION
NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD,
CALIFORNIA**

MAY 3, 2006

(10 Pages)



**Installation Restoration Site 22
Naval Weapons Station Seal Beach,
Detachment Concord
Remedial Investigation at
Site 22 – Magazine Area**

May 3, 2006



Presentation Overview



- **Review of Site 22 History**
- **Overview of Sampling Results from 2005 Sampling**
 - Low-lying areas of Site 22
 - Fence line sampling
 - Mt. Diablo/Seal Creek
 - Magazine Areas A-D
- **Preparation of Remedial Investigation**



Site 22 Magazine Area



2



Previous Investigations and Site Background



- **1997:** Remedial investigation focused on Building 7SH5 (missile wing and fin repair)
- **2002:** Sampling performed for RI showed elevated arsenic in surface soil in open grassland areas
- **2002:** Revised Remedial Investigation distributed
- **2004:** Additional sampling performed throughout magazine area; results confirm that arsenic is elevated throughout magazine area. Site 22 boundary expanded from 6 acres to 530 acres.
- **2004-2005:** Agency for Toxic Substances and Disease Registry (ATSDR) public health consultation (Final 03/28/05) evaluates potential risk to off-site residents from arsenic-contaminated soil. ATSDR concluded that risk to human health from this site was unlikely and that no further sampling was necessary. Dust control during tilling operations was recommended.
- **2005:** Sampling Plan prepared and samples collected for Remedial Investigation
- **Suspected source of Arsenic:** Herbicides applied to control weed growth around bunkers in late 1940's. Arsenic concentrations at depth and outside the magazine area are consistent with naturally occurring levels of arsenic in soil.

3



Site 22 Magazine Area



Site 22 Magazine Area





Low-Lying Areas of Site 22



Study Question: Has Arsenic accumulated in low-lying areas of Site 22, including in the abandoned Clayton Canal?

Sampling: Nine surface soil samples analyzed for Arsenic

Results:

- **Most samples below ambient level (10 parts per million [ppm] in soil**
- **One sample collected in a drainage ditch had arsenic at 240 ppm (highest observed at the site to date)**
- **Samples in Clayton Canal ranged from 9.2-14 ppm**

6



Figure 1: Low-Lying Areas



7



Fence-Line Sampling



Study Question: How elevated are Arsenic concentrations along the Navy's southwest fenceline?

Sampling: Five surface soil samples analyzed for Arsenic along the Navy's fenceline, and one at a location previously sampled to confirm result.

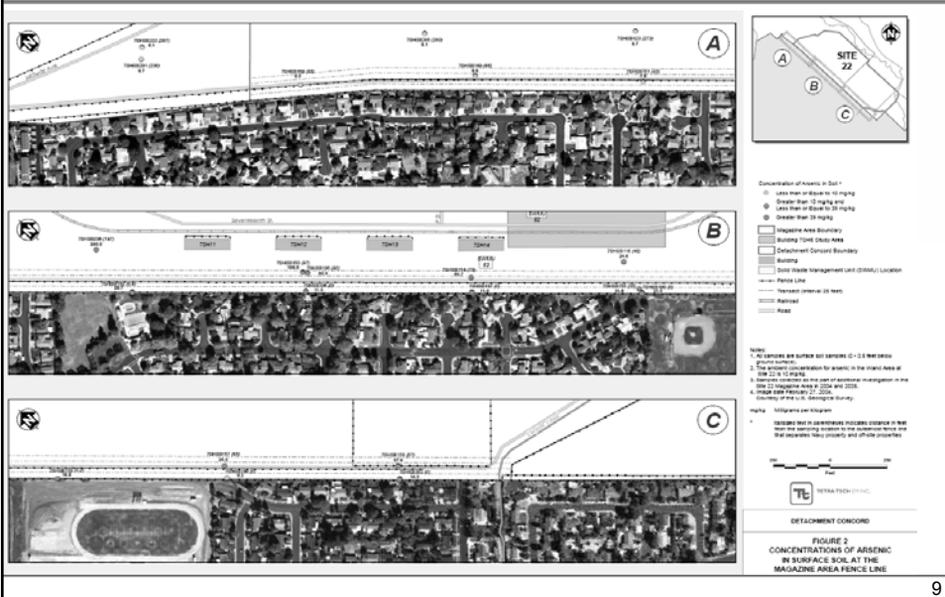
Results:

- Fence-line samples ranged between 8.2 ppm and 21 ppm

8



Figure 2: Fence Line Samples





Mt. Diablo/Seal Creek



Study Question: Has contaminated soil from Site 22 migrated to the creek?

Sampling: Fifteen surface sediment samples analyzed for Arsenic in Mount Diablo/Seal Creek

Results:

- **Arsenic not detected above the ambient level (10 ppm) in any samples collected in the Creek**

10



Mt. Diablo/Seal Creek: Dry Season



11



Mt. Diablo/Seal Creek: Wet Season



Figure 3: Mt. Diablo/Seal Creek





Inland Area Magazine Sampling



Study Question: Were arsenic-containing herbicides used to control vegetation near other Inland Area magazines?

Sampling: Thirty surface soil samples analyzed for Arsenic in Magazine Areas A-D

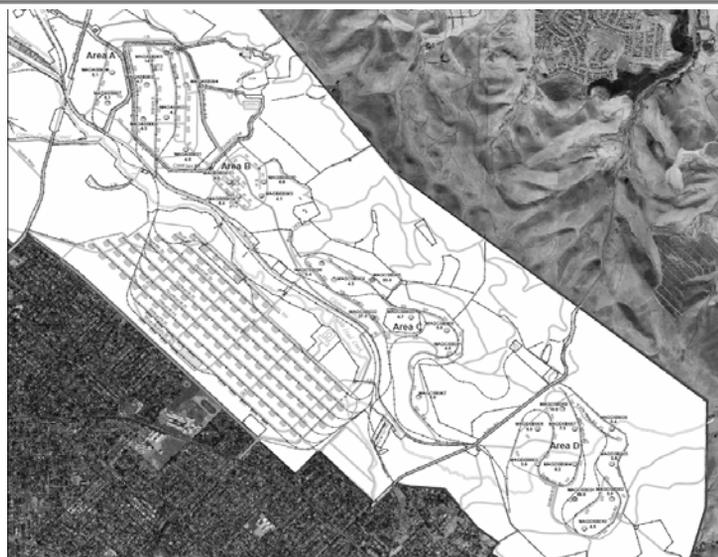
Results:

- **Arsenic detected in 4 of 30 samples at concentrations above the ambient level (10 ppm)**
 - Area A: 1 sample at 14 ppm
 - Area B: None above ambient
 - Area C: Samples at 27 ppm and 53 ppm
 - Area D: 1 sample at 69 ppm

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Figure 4: Magazine Areas A-D



N ↑

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Remedial Investigation



Remedial Investigation preparation underway

Human Health Risk: Do site chemicals of concern pose unacceptable risks to current or future industrial or residential users of the property?

Ecological Risk: Do site chemicals of concern pose unacceptable risks to the environment (plants, invertebrates, birds, and mammals?)

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Remedial Investigation



Site 22 Remedial Investigation Preparation Underway: includes data collected at Site 22 and in Mount Diablo/Seal Creek.

- July 14, 2006: Draft Remedial Investigation
- July 14, 2006 – September 12, 2006: Agency and public review of Draft Remedial Investigation
- November 13, 2006: Draft Final Remedial Investigation
- November 13, 2006 – December 13, 2006 – Agency and public review of Draft Final Remedial Investigation
- December 13, 2006: Remedial Investigation Final

Data collected from Inland Area A through D Magazines will not be included in the RI. The Navy and agencies are working on next steps for these areas.

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Off-site Sampling



- **Prior commitment to sample**
 - **Commitment was premature**
 - March 2005 ATSDR Health Consultation Report
 - Did not support need for sampling
 - **Data would be inconclusive**
 - Arsenic is naturally occurring in California
 - Arsenical herbicides and insecticides commercially available through the late 1900s
 - Product examples include: Dasaflo, Dasatox F, Saliron, Sascotox 325, Dasaron, Tiga-D, Tenaga, Superdee

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Questions



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