

MINUTES
NAVAL WEAPONS STATION (NAVWPNSTA) SEAL BEACH
RESTORATION ADVISORY BOARD (RAB)
AND COMMUNITY MEETING
January 11, 2005

Participants:

Anton, Linda / CH2M HILL
Blake, Geoffrey
Dudekis, Jason / Orange County Water District
Garrison, Kirsten / CH2M HILL
Hohenadl, Eike
Jordan, Jack / Ecology Control Industries
Le, Si / Southwest Division, Naval Facilities Engineering Command (SWDIV)
Peoples, J.P. / RAB Community Co-chair
Smith, Gregg / NAVWPSNTA Seal Beach Public Affairs Officer (PAO)
Tamashiro, Pei-Fen / NAVWPNSTA Seal Beach and RAB Navy Co-chair
Whittenberg, Lee / City of Seal Beach
Wong, Bryant / CH2M HILL

WELCOME

At 7:06 p.m., P. Tamashiro, Navy Co-chair began the meeting by welcoming the participants. She introduced J.P. Peoples, RAB Community Co-chair and G. Smith, NAVWPNSTA Seal Beach Public Affairs Officer (PAO).

RAB members were encouraged to direct any questions regarding environmental issues to P. Tamashiro and to direct questions regarding public affairs issues to G. Smith.

P. Tamashiro announced that the RAB meeting would proceed with a status update on the ongoing IR Program.

PROJECT HIGHLIGHTS

The RAB meeting continued with a status update on the ongoing IR Program presented by S. Le, the SWDIV Remedial Project Manager (RPM) for the NAVWPNSTA Seal Beach IR Program.

The following sites were discussed:

- Site 42 - Auto Shop Sump/Waste Oil Tank; Sites 44/45 - Former Waste Otto Fuel Drum Storage / Building 88 Floor Drain Outlet; and Solid Waste Management Unit (SWMU) 57 - Paint Locker Area; Engineering Evaluation and Cost Analysis (EE/CA)
- Site 14 - Abandoned Leaking Gasoline Underground Storage Tank (UST), Groundwater Investigation
- Site 40 - Concrete/Pit Gravel Area and Site 70 - Research, Testing, and Evaluation (RT&E) Area Groundwater Monitoring Program

- Site 70 Revised Feasibility Study (RFS), Proposed Plan (PP), and Record of Decision (ROD)
- Site 40 Pilot Testing
- Site 40 Remedial Design and Remedial Action
- Site 74 – Old Skeet Range, Tier II Ecological Risk Assessment
- Site 4 – Perimeter Road; Site 5 – Clean Fill Disposal Area; Site 6 – Explosives Burning Ground; and Site 7 – Station Landfill, Groundwater Monitoring Program

Copies of the slide presentation were made available as a handout at the meeting. The following question was posed after the Project Highlights presentation:

Question: What microorganism is in the KB-1™ bacterial culture?

Answer: *Dehalococcoides ethenogen*.

P. Tamashiro continued the RAB meeting by indicating that a presentation would be given by S. Le to provide the RAB an update on the Annual IR Program schedule and budget.

PRESENTATION – ANNUAL IR PROGRAM SCHEDULE AND BUDGET

S. Le proceeded with a presentation on the annual IR Program schedule and budget.

Copies of the slide presentation were made available as a handout at the meeting. The following questions were posed during and after the presentation:

Slide 10

Comment by P. Tamashiro: While Site 7 (Station Landfill) is listed in the Fiscal Year (FY) 2005 IR Program projects, the funds for the remedial/removal action and long-term groundwater monitoring at this site were actually allocated from a previous year’s IR Program funding.

Comment by S. Le: Yes, that is true. The removal action at Site 7 was planned years ago and then when the EE/CA was conducted, the results supported an alternative approach to contaminant remediation/removal, which delayed implementation of the remedial/removal action. Funds from FY 2003 were used for the removal action and will be used for the long-term groundwater monitoring at Site 7.

Question: Is Site 7 the site where waste was disposed in shallow trenches?

Answer: Yes, Site 7 is the Station Landfill. Area 1 within Site 7 was the location where most of the waste disposal took place in a series of unlined trenches.

Question: So IR Program budget allocations from previous years are paying for Site 7? What funds are paying for Site 4 (Perimeter Road)?

Answer: Yes, IR Program budget allocations from FY 2003 are paying for the remedial/removal action and groundwater monitoring at Site 7. The costs for lead “hot spots” removal at Site 4 were paid for with FY 2004 funds.

Question: Is the use of FY 2004 funds for Site 4 reflected in the presentation?

Answer: Yes.

General

Question: With respect to the bio-barriers being installed at Site 70 (Research, Testing, and Evaluation Area), how far below ground surface (bgs) will the barriers be placed?

Answer: Six bio-barriers will be installed at a depth of 200 feet bgs to target the dissolved portion of the plume. The groundwater contamination plume at Site 70 is about 4,000 feet long by 2,000 feet wide. The natural groundwater flow in the area will force the contaminated groundwater through the barriers.

Question: How many individual bio-barriers will be installed at Site 70?

Answer: We estimated six bio-barriers will be installed to treat the dissolved portion of the plume and 4 bio-barriers will be installed to treat the source area. However, the actual number will be finalized during the remedial design phase of the project.

Question: Will the Navy dig out the contamination “hot spots” at Site 70?

Answer: No, it has been determined that there are no shallow soil contamination issues with respect to chlorinated solvents at Site 70. The contamination at Site 70 exists some 40 to 50 feet bgs in the saturated groundwater.

Question: Do you know what the cost of the biological treatment at Site 70 is per ton or cubic yard?

Answer: The costs of treatment were calculated in pounds and I will have to check the EE/CA for this information. This information will be provided in the meeting minutes.

The following response was developed subsequent to the RAB meeting to provide a more complete response to the RAB member's question in the meeting minutes:

It is more common to compare the total cost to treat the groundwater plume among different technologies than calculating cost per pound for contaminants in groundwater. Especially for a complex geological condition, such as Site 70, it is difficult to estimate the total quantity of the solvent in the groundwater. To estimate the cost per pound of solvent removal at Site 70, by assuming the source area contains the same amount of solvent as the dissolved plume, the estimated cost to treat the solvent at Site 70 is approximately \$1,700 to \$2, 000 per pound. Please note that it is not feasible to conduct "dig and haul" for the entire site, or just the source area, due to the depth to the bottom of contamination and the building structures located within the site.

Question: Well, the cost per pound was pretty low wasn't it? A lot cheaper than "dig and haul", I'm sure.

Answer: This is not really a "dig and haul" type of project. The contamination at Site 70 is dissolved in the groundwater.

Comment: I've heard of the "dig and haul" approach used for groundwater contamination at other sites. I believe it was an Exxon site where the contamination extent occurred some 400 feet long and 80 to 100 feet bgs.

Response: The "dig and haul" approach may be viable in a situation where the contamination is relatively recent, such as an underground storage tank leak that was detected right after the release. However, the situation at Site 70 is that the contamination has been there for a long period of time and the groundwater plume has migrated a great distance and depth from the source area. Therefore, it's not practical to use a "dig and haul" approach at Site 70.

Question: What are Breitburn Energy's responsibilities with respect to Site 22 (Oil Island)? Are they dealing with the investigation and restoration of the site on their own or is the Navy also involved?

Answer: The Navy is involved and will hold Breitburn Energy responsible for investigations and restoration of Site 22. The ongoing investigations being conducted at Site 22 are occurring under a cost-sharing agreement between the Navy and Breitburn Energy because the Navy has historically expended monies to investigate the site. Any restoration at Site 22 required as a result of the investigations will be conducted at Breitburn Energy's expense, with oversight from the Navy and appropriate regulatory agencies.

Question: Is there any documentation of this relationship and approach to investigation and restoration activities at Site 22?

Answer: Yes, documentation of the investigations Breitburn Energy has conducted at Site 22 has been prepared, but release of these documents has been delayed over the last year. However, Breitburn Energy recently responded to the regulatory agencies' request for additional information. The documents are currently being reviewed by the Navy and regulatory agencies.

BREAK

P. Tamashiro announced that there would be a 10-minute break.

PRESENTATION - OVERVIEW OF THE NET ENVIRONMENTAL BENEFITS ANALYSIS (NEBA)

P. Tamashiro opened the second presentation by indicating that it was being provided to the RAB as a training session to give an overview of the Net Environmental Benefits Analysis (NEBA) approach. She clarified that the NEBA presentation would be general in nature, focusing primarily on appropriate methodology, and would not address a site-specific application.

L. Anton proceeded with an overview of the NEBA approach.

Copies of the slide presentation were made available as a handout at the meeting. The questions and answers posed after the presentation are summarized below:

Question: You mentioned that the NEBA approach had been approved by both the Department of Defense (DoD) and Environmental Protection Agency (EPA). Are there any documents that interested members of the RAB can read regarding the NEBA approach?

Answer: Yes, if you will provide me your e-mail address I will send you the background materials and documentation for DoD and EPA involvement in the use of NEBA.

After the RAB meeting was adjourned, additional RAB members requested to be provided with the NEBA information. It was decided that the NEBA information could be more efficiently distributed to the RAB meeting attendees if the web site addresses where these documents are available were included in the meeting minutes. The following web site addresses provide the requested NEBA information:

Interim Policy on Integration of Natural Resource Injury Responsibilities and Environmental Restoration Activities

http://5yrplan.nfesc.navy.mil/policies/pdf/nri_policy.pdf

A Framework for Net Environmental Benefit Analysis for Remediation or Restoration of Petroleum-Contaminated Sites

<http://www.esd.ornl.gov/programs/ecorisk/documents/NEBA-petrol-s-report-RE.pdf>

USEPA Ecological Benefits Assessment Strategic Plan

[http://yosemite.epa.gov/ee/epa/eed.nsf/3cdbc09d7c867d9785256c9200548b12/e8441b387b65e99485256dc1004f6d85/\\$FILE/2003%2009%2030%20SAB%20Draft%20Ecological%20Benefits%20Assessment%20Strategic%20Plan%20Sections%201%20to%203%20and%206.pdf](http://yosemite.epa.gov/ee/epa/eed.nsf/3cdbc09d7c867d9785256c9200548b12/e8441b387b65e99485256dc1004f6d85/$FILE/2003%2009%2030%20SAB%20Draft%20Ecological%20Benefits%20Assessment%20Strategic%20Plan%20Sections%201%20to%203%20and%206.pdf)

Question: Does the NEBA approach involve the natural resource managers in the process earlier so that their concerns are addressed as early as possible?

Answer: Yes, natural resources trustees such as the United States Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and others (depending upon the circumstances of the site) are involved early on in the NEBA approach for coordination, input, and consent.

Comment by B. Wong: While the NEBA approach has not been used at NAVWPNSTA Seal Beach, early coordination with and involvement by the natural resources trustees is not a new concept to the Station's IR Program.

Question: Does the NEBA approach also involve early coordination and involvement from agencies such as the Department of Toxic Substances Control (DTSC)?

Answer: Yes, the DTSC must be involved in the remediation of contaminated sites and their input is important for regulatory concurrence of the NEBA approach.

Question: Is the NEBA approach an extension of the Risk Based Corrective Action (RBCA) process?

- Answer:** They likely have similar characteristics in their approaches. Both approaches have developed as a result of the evolution of the remediation process and learning as we go.
- Comment:** This is a brilliant idea. Seeking buy-in from natural resources trustees and environmental advocacy groups early in the remediation process is a proactive approach and reduces the chance for opposition and lawsuits once the final ROD is adopted and the final remedial action is implemented.
- Comment:** This is true. Some of these environmental advocacy groups look at these situations from a revenue profit standpoint.
- Comment by L. Anton:** The NEBA approach avoids these costs by getting everyone on board while maintaining the guidance of the cleanup activity.
- Comment:** The NEBA approach seems like a good process to apply to Site 74 (Old Skeet Range). The approach will be important to account for the environmental benefits provided by the National Wildlife Refuge (NWR).
- Comment by L. Anton:** NEBA would be a helpful process to help evaluate the loss of NWR habitat associated with each of the cleanup alternatives at Site 74.
- The NEBA is an EPA approved process that was refined by CH2M HILL staff and OakRidge Lab, in collaboration with the EPA. The assessment is based on habitat features such as the presence of endangered species; type, quality, and quantity of habitat; and level of site disturbance.
- Question:** Has the NEBA approach ever been implemented with California Coastal Commission consent or involvement?

Answer: I do not know of a specific case where the California Coastal Commission was involved in the NEBA approach. I can look into this question and provide a more thorough response in the meeting minutes.

Following the RAB meeting, CH2M HILL provided the following supplemental response for inclusion in the meeting minutes:

The California Coastal Commission was involved with a NEBA on a project that involved an electric utility located in California. The client utilized CH2M HILL services to help formulate a strategy to secure Clean Water Act 316 A and B permits for a facility. The analysis entailed characterizing thermal, entrainment, and impingement effects on the environment from the plant's operations within a NEBA framework. Strategies to offset these effects were analyzed. This analysis determined the most cost-effective combination of changing plant operations, adopting the Best Technology Available (BTA), and providing habitat (including preservation and enhancement) to maximize the environmental benefit to the public.

The tools used to conduct a NEBA, such as the HEA (Habitat Equivalency Analysis), are commonly used by the State of California in Natural Resource Damage Assessment (NRDA) cases. These tools can be used to assess the value associated with restoration alternatives and demonstrate the value and stewardship of a proposed project to determine which restoration project provides the greatest value.

Comment by L. Whittenberg: The purpose for my question is that the California Coastal Commission is not that active in the NAVWPNSTA Seal Beach IR Program because they deal more with private property than with federal lands. However, the City of Seal Beach is planning to conduct restoration on an oil production site (private property). The NEBA approach might be useful, if it is an acceptable approach to the California Coastal Commission.

Response: I believe all resource agencies appreciate an up front process with early opportunities for involvement. The NEBA process might indeed be helpful for your site.

COMMUNITY FORUM

P. Tamashiro announced that the next RAB meeting would be held the second Tuesday of March (March 8, 2005) and encouraged RAB members to attend. She also indicated that **an election for the next RAB Community Co-chair would be held at the next RAB meeting. The current RAB Community Co-chair, J.P. Peoples had served two years and would be stepping down. P. Tamashiro requested that all interested RAB members submit nominations for themselves or other qualified members. All nominations should be submitted to P. Tamashiro and must be received by Monday, March 7, 2005.** Ballots for the election will be prepared based upon the nominations submitted.

A RAB member asked whether the March 8, 2005 RAB meeting would be held at the NAVWPNSTA Seal Beach or at the City of Seal Beach Council Chambers. L. Whittenberg responded that the renovation of the council chambers would be completed in time for the next RAB meeting. P. Tamashiro indicated that given this information, the meeting would likely be held at the council chambers. She added that the date and location of the March 2005 RAB meeting would be confirmed in the meeting announcement distributed to the RAB prior to the meeting.

ADJOURNMENT

P. Tamashiro concluded the meeting by thanking everyone for attending. The meeting was adjourned at 8:20 p.m.

Note: This is a meeting summary, not an actual transcript.