

NAVAL WEAPONS STATION (NAVWPNSTA) SEAL BEACH
RESTORATION ADVISORY BOARD (RAB)
AND COMMUNITY MEETING
NOVEMBER 17, 1999

Participants:

Bettencourt, Philip
Bradley, John/U.S. Fish and Wildlife Service
Dick, Andrew/Southwest Division, Naval Facilities
Engineering Command (SWDIV)
Embree, Melody/CH2M HILL
French, Jim/Bechtel National, Inc.
Hannon, Patricia/Regional Water Quality Control Board, Santa
Ana Region (RWQCB)
Lamond, Robert
Leibel, Katherine/Department of Toxic Substances Control
(DTSC)
Masley, Andy
Menzel, Barry
Moore, Richard
Nguyen, Dien/Orange County Environmental Health
Peoples, J.P.
Pilichi, Carmine
Schilling, Bob/Bechtel National, Inc.
Seabring, Fred
Sears, Terry
Smith, Gregg/NAVWPNSTA Seal Beach Public Affairs Officer
Tamashiro, Pei-Fen/NAVWPNSTA Seal Beach and Navy Co-chair
Vessely, R. Gene
Willhite, Lindi
Woodside, Greg/Orange County Water District
Wong, Bryant/CH2M HILL

WELCOME

At 7:00 p.m., R. Lamond (sitting in for M. Voce, Community Co-chair) opened the meeting by welcoming the participants to the meeting. P. Tamashiro also welcomed the participants to the Restoration Advisory Board (RAB) meeting and introduced herself as the Navy Co-chair and base Installation Restoration (IR) Program coordinator. She also thanked R. Lamond for filling in for M. Voce for the evening.

Encl (1)

PROJECT HIGHLIGHTS

P. Tamashiro introduced A. Dick, the Remedial Project Manager (RPM) from SWDIV who provided the RAB with an overview of the NAVWPNSTA Seal Beach's IR Program projects status. Copies of the slide presentation were made available as a handout at the meeting. Questions and answers made following the presentation are summarized below:

Slide 7 - Sites 4, 5, & 6 Removal Site Evaluation (RSE)

Question: On slide 7, the last bullet indicates that a report will be submitted to the Navy for review in early January 1999, shouldn't it be January 2000?

Answer: Yes, you are correct. The bullet should indicate that the Pre-Draft Report will be submitted to the Navy for review in early January 2000.

Slide 14 - Sites 40 and 70 Feasibility Study:

Question: Can you describe the Navy's review process?

Answer: The Navy reviews the documents internally as a quality assurance/quality control measure checking for factual accuracy, policy consistency, and technical details before the documents are reviewed by the RAB and regulators.

FEASIBILITY STUDY AT SITES 40 AND 70 (PART I)

P. Tamashiro introduced B. Schilling from Bechtel National, Inc. who provided the RAB with a presentation on the groundwater Feasibility Study (FS) for the IR Program Sites 40 and 70. Copies of the slide presentation were made available as a handout at the meeting. Questions and answers made following the presentation are summarized below:

Slide 12 - TCE Plume Map IR Site 70:

Question: What is the consequence of the cancer risk being several orders of magnitude higher than the acceptable limit?

Answer: It means that sufficient risk exists to warrant a response action. The purpose of the FS is to identify remedial alternatives and recommendations to manage or reduce this risk.

Slide 17 - Elements of the Feasibility Study (cont'd.):

Question: Is the groundwater saline?

Answer: Water quality varies throughout the study area. Some areas are brackish, some saline, and some fresh water.

Question: Does your work plan only deal with the groundwater at the site and not the soil? And if so, would the soil that remains after cleanup of the groundwater, be suitable for growing crops or grazing livestock?

Answer: The human health risk assessment showed that the risks posed by the soils are acceptable under the residential land use scenario. The residential land use scenario uses the strictest health criteria, so no land use restrictions would be required from a health risk standpoint. The contamination we are talking about is in the groundwater, which is about 10 feet below ground surface (bgs).

Question: The presentation discusses protecting existing beneficial uses of water, but what about future beneficial uses of water?

Answer: The purpose of the remedial alternatives evaluated by the FS is to protect the beneficial uses of the water now and in the future.

Question: Have any soil investigations been done in the agricultural areas to determine potential risk from pesticide and herbicide applications?

Answer: The sites covered by the Navy's IR Program were identified following a standard protocol applied to all Department of Defense installations. The Navy originally conducted an "initial assessment study" (IAS) following this protocol to discover areas of potential concern at NAVWPNSTA Seal Beach in 1985. This IAS included visual inspections, reviews of aerial photographs, review of pertinent reports and studies, and the interviewing of past employees to help determine past disposal practices and potentially contaminated sites. The sites that made it into the IR Program are the ones that have been identified to be of potential concern. Current agricultural applications of chemicals do not fall within the scope of the IR

Program, and are managed under separate laws and regulations.

Comment: G. Vessley commented that the issue of agricultural areas is not within the purview of the IR Program and the current NAVWPNSTA Seal Beach RAB, though he does believe that future RABs will have to deal with these issues. He further commented that he has concerns about the pesticides and herbicides being applied to the agricultural lands. He also expressed his opinion that base agricultural practices be restricted to organic farming.

Slide 19 - Remedial Action Objectives and Remediation Goals:

Question: Aren't drinking water standards 1 part per billion (ppb)?

Answer: Drinking water standards or maximum contaminant levels (MCLs) are different for different types of contaminants (e.g., the MCL for tetrachloroethene is 5 ppb).

BREAK 8:00 TO 8:10 PM

FEASIBILITY STUDY AT SITES 40 AND 70 (PART II)

Slide 22 - Potential Remedial Action Alternatives:

Question: For IR Site 40, Alternative 2, what is the length of time monitored natural attenuation (MNA) would take to reach the cleanup goal?

Answer: Based on our modeling results, MNA would take about 35-40 years to reach our remedial action goals.

Question: When does the 35-40 years start?

Answer: Natural attenuation is actually taking place now, but we won't begin monitoring it until about April of 2000.

Question: How many wells would need to be installed for Sites 40 and 70?

Answer: At Site 40, lactate enhancement (Alternative 5a) would require about 12 wells, while chemical oxidation (Alternative 5b) would require about 30 wells. At Site 70, chemical oxidation

(Alternatives 6 and 9) would require about 242 wells to be installed.

Question: How much of the chemical (i.e., hydrogen peroxide) would have to be used to reach remedial action goals?

Answer: The actual quantity of chemicals needed would depend on the results of treatability testing. For Site 70 *in situ* treatment technology, we anticipate needing to use as much as 750,000 gallons of hydrogen peroxide, iron catalyst, and proprietary agents to reach remedial action goals.

Question: Does Bechtel have any experience with this chemical oxidation technology, especially in dealing with potential problems (e.g., vapor release, sink holes, and violent chemical reactions)?

Answer: The specific *in situ* chemical oxidation treatment technology looked at in the FS is proprietary; however, Bechtel does have direct experience with implementing the technology at other sites. In addition, Bechtel evaluated this technology based on information from the literature and the Navy's experience at a site in its South Division. If chemical oxidation is carried on as a preferred technology, it must be thoroughly tested for conditions specific to this site.

Question: What are the concerns or more suitable treatment technologies for Site 40?

Answer: With regard to Site 40, a different form of *in situ* chemical oxidation was evaluated. This technology would involve more dilute chemicals and is designed for lower levels of contamination. However, at Site 40, monitored natural attenuation and/or enhanced bioremediation using an innocuous lactic acid solution have scored highest among the five balancing criteria.

Slide 28 - Results of Comparative Analysis for Site 40:

Question: Are the "mediums" on the table rated the same, or can they be "medium-minus" and/or "medium-plus"?

Answer: No, the "mediums" are not all equal. There are "shades of gray" within each ranking, but the FS describes the differences in detail.

Slide 29 - Results of Comparative Analysis for Site 70:

Question: How can all the "cost-effectiveness" be the same for all these technologies?

Answer: The costs - capital and operation and maintenance - associated with each of the technologies are in relation to their overall effectiveness. For Site 70, the cost-effectiveness of these remediation technologies is not dramatically different.

Question: When you prepare the Proposed Plan for these sites, does the preferred alternative have to be one evaluated by the FS?

Answer: Yes, the preferred alternative presented in the Proposed Plan would have to be a technology or combination of technologies evaluated by the FS.

Question: I thought the RAB has a self-imposed goal of requiring that remediation should take less than 50 years to achieve cleanup?

Answer: The realistic time it takes to achieve cleanup goals depend on site conditions, risks involved, and type of contamination. Some sites, like Site 70, are restricted by the limitations of the existing state of remedial technology. Other sites, such as landfills, often cannot be "cleaned up" and require long-term monitoring of as many as 30 or more years.

Question: Is Site 70 the biggest site at the base?

Answer: Yes, Site 70 is the largest site at NAVWPNSTA Seal Beach because of the size of the groundwater plume.

Question: After cleanup, how soon can the public gain access to the area?

Answer: Based on the risk assessments of Site 70, there are no health restrictions on the surface of the site, but, because of the groundwater contamination, there would need to be a deed restriction that limits the use of the underlying groundwater.

Question: From your presentation, it would seem that you are confident that the plume will stay within the boundary of the NAVWPNSTA Seal Beach. Wouldn't

rainfall expand the plume? How can you control the size of the plume?

Answer: It is possible to control the size and migration of the plume through specifically designed hydraulic controls.

COMMUNITY FORUM

P. Tamashiro asked for any community issues to be brought forward. No issues were brought up.

FUTURE AGENDA TOPICS

A RAB member requested that at the January 2000 meeting, the Navy provide a "big picture" of the cleanups of NAVWPNSTA Seal Beach. It was decided that A. Dick would provide an abbreviated project highlights, and then provide an overview of the future (next two years) project plans for the base at the January RAB meeting.

In addition, it was suggested that the Navy provide a budget update to the RAB. The Navy will look into this request to see what restrictions there might be on the release of budgetary information, and get back to the RAB in January.

Question: What's the schedule to provide the RAB an update on Perimeter Road?

Answer: The Navy will try to provide an update on Site 4 (Perimeter Road) at the February RAB meeting.

ADJOURNMENT

P. Tamashiro thanked the participants for staying through the meeting even though it ran a little long. She also announced that there would be no RAB meeting in December in observance of the Holidays. The next RAB meeting is scheduled for Wednesday, January 12, 2000. The meeting was adjourned at 9:10 p.m.