

MINUTES  
NAVAL WEAPONS STATION (NAVWPNSTA) SEAL BEACH  
RESTORATION ADVISORY BOARD (RAB)  
AND COMMUNITY MEETING  
January 15, 2008

Participants:

Blake, Geoff  
Daverin, John / GeoSyntec Consultants  
Dadakis, Jason / Orange County Water District  
Grinyer, Walter / GeoSyntec Consultants  
Jordan, Jack  
Kurtz, J.D. / Captain, Commanding Officer, NAVWPNSTA Seal Beach  
Le, Si / Naval Facilities Engineering Command, Southwest (NAVFAC SW)  
Lee, Karen  
Lee, Larry  
Leibel, Katherine / Department of Toxic Substance Control, Cypress  
Salazar, Cindy / CH2M HILL  
Smith, Gregg / NAVWPSNTA Seal Beach Public Affairs Officer (PAO)  
Stillman, R. Glenn  
Peoples, J.P.  
Tamashiro, Pei-Fen / NAVWPNSTA Seal Beach and RAB Navy Co-chair  
Wong, Bryant / CH2M HILL  
Vesely, Gene

WELCOME

At 6:00 p.m., P. Tamashiro, Navy Co-chair began the meeting by welcoming the participants. Attendees were asked to introduce themselves.

Captain J.D. Kurtz presented J.P. Peoples with a certificate of appreciation for her work as past RAB Co-Community Chair to the NAVWPNSTA IR Program.

P. Tamashiro announced that the RAB meeting would proceed with a status update on the ongoing Installation Restoration (IR) Program followed by a presentation on the NAVWPNSTA Seal Beach IR Program budget by S. Le. P. Tamashiro announced that GeoSyntec Consultants would be giving an update on the Site 70, Remedial Action.

PROJECT HIGHLIGHTS

The RAB meeting continued with a status update on the ongoing IR Program presented by S. Le.

The following sites were discussed:

- Site 40 - Concrete/Pit Gravel Area, Remedial Action
- Site 70 - Research, Testing, and Evaluation (RT&E) Area, Remedial Design and Construction

- Site 74 - Old Skeet Range, Net Environmental Benefit Analysis (NEBA) and Engineering Evaluation and Cost Analysis (EE/CA)
- Future Projects - UST 229 Site Assessment/Investigation; Site 7 Landfill Cover Maintenance and Monitoring; Draft Munitions Response Project (PA/SI); and Agriculture Water Well (KAYO SB) Solvent Contamination

Hard copies of the slide presentation were available as a handout at the meeting.

Questions and answers posed during and after the Project Highlights presentation are summarized below:

**Question:** What was TCE used for (at Site 70)?

**Answer:** TCE was used as a cleaning agent for the Apollo test engines. Some of the TCE seeped into the groundwater.

**Question:** Was Los Alamitos ever contiguous with NAVWPNSTA Seal Beach?

**Answer:** No, Los Alamitos was never contiguous with NAVWPNSTA Seal Beach, just adjacent.

**Question:** Regarding the Agriculture Water Well Solvent Contamination, who is responsible for this contamination?

**Answer:** The Orange County Water District brought this issue to our attention and we are currently investigating the source of the contamination.

**Question:** Where is this agriculture water well located?

**Answer:** It is located between Bolsa Avenue and Edinger Avenue near Bolsa Chica Road.

**Question:** Who makes the decision in the Action Memo for Site 74, Old Skeet Range?

**Answer:** The Navy is the lead Federal agency and ultimately signs off on the Action Memo, but works with State agencies in a collaborative fashion. The Navy seeks to gain concurrence with the State agencies before making a decision. The Commanding Officer signs the Action Memo on behalf of the Navy. In addition, a public meeting will be held to allow the public to provide comments. The NEBA and EE/CA will be used to present the facts to stakeholders and State agencies. The process allows the public to comment and allows the regulators to provide input.

## PRESENTATION - IR PROGRAM BUDGET

S. Le continued the RAB meeting by presenting an update on the 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 are summarized below:

**Question:** What is the probability of getting the actual funding for future years?

**Answer:** The budget is only secured 1 to 2 years ahead in the system. So the Navy is pretty confident about the funding numbers shown for Fiscal Years (FY) 2008 and 2009. The budget for out-years beyond FY 2009 is less certain.

**Question:** Have the diesel underground storage tanks been removed (at Building 229)?

**Answer:** Yes. The UST 229 diesel fuel tanks have been removed. No diesel has been observed in the groundwater at nearby Site 14. The naturally-occurring bioremediation may have taken place and degraded the diesel. We need to investigate to confirm that and assess the risk to see what steps need to be taken.

P. Tamashiro announced there would be a 10-minute break followed by the technical presentation on Site 70, Remedial Action Update.

BREAK

PRESENTATION - ENHANCED IN SITU BIOREMEDIATION WELL INSTALLATION AT IR SITE 70

W. Grinyer, GeoSyntec Consultants, presented the background, regional and site conditions, remedial approach, and EISB (enhanced in situ bioremediation) installation activities and J. Daverin, GeoSyntec Consultants, presented the conceptual site model.

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

**Question:** What is a biobarrier?

**Answer:** This will be covered in the presentation. It is a transect of wells across the plume flow that is injected with nutrients and microbes to create a bioactive zone.

**Question:** Can source area be seen on Slide #20?

**Answer:** The top of Slide #20 shows the lower (southeast) corner of the source area shown on Slide #13.

**Question:** Why is the clay dark? (SSB101 of Slide #33) Is there oil?

**Answer:** There are no hydrocarbons or odor in this soil cutting. It is the same color as SHB 217 on the same slide. The color on this photograph could be due to lighting and/or the camera.

**Question:** Were dense nonaqueous phase liquids (DNAPLs) found?(Slide #37)

**Answer:** No. No DNAPL was observed.

**Question:** The second biobarrier from the right (in Slide #40) -- is there an explanation for the disconnected detection of TCE?

**Answer:** We do not have enough data to explain why there seems to be a disconnected detection of TCE. It could be that a clay lens may have cut off a wedge of the TCE plume. Water pressures can vary, perhaps because of the presence of the Los Alamitos salt-water intrusion barrier and affect the lateral movement of the plume. We have thought about it a lot but have no real explanation for it.

**Question:** Why is the second biobarrier broader and deeper?

**Answer:** At different screen intervals, there is a 5 foot vertical overlap. If you were to screen all the way to the bottom within one biobarrier, the larger screen intervals will consume more emulsified vegetation oil (EVO) and KB-1. When the concentration is less than the target active cleanup level it is inefficient to dose large intervals. By using shorter screen intervals separated by blank screen we are able to focus the injection of the EVO and KB-1. The EVO migrates and where the flow and greater concentrations need to be treated.

**Question:** What pressure will the EVO be injected at?

**Answer:** The injection pressure of the EVO will depend on the conductivity of the unit and injection rate. The EVO will be injected at between 5 pounds per square inch (psi) to 20 psi based on the results of the pilot study.

**Question:** At SHB-3, how will you control the injection to the two screen intervals (80 feet to 100 feet and 110 feet to 130 feet)?

**Answer:** Mechanical or inflatable packers will be used to control the injection between the two screened intervals.

P. Tamashiro commented that through the use of sonic drilling, information about the lithology of the site was obtained and there was a decrease in waste cuttings produced.

#### COMMUNITY FORUM

No additional comments were raised.

P. Tamashiro indicated that with only a handful of active sites, RAB meetings will be held on a quarterly or "as needed" basis. The preference was for scheduling on an "as needed" basis. No objections were raised. At this point, no date was set for the next RAB meeting. A meeting notice will be sent out one month to two weeks before the next meeting. Future meetings are still planned to take place at the City Council Chambers. P. Tamashiro is open to suggestions for presentation or training topics.

#### ADJOURNMENT

P. Tamashiro adjourned the meeting at approximately 7:58 p.m.

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