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NAVAL WEAPONS STATION (NAVWPNSTA) SEAL BEACH  
RESTORATION ADVISORY BOARD (RAB)  
AND COMMUNITY MEETING  
March 13, 2002

Participants:

Bradley, John / United States Fish and Wildlife Service  
Carmody, Jack  
Clarke, Dean / Orange County Health Care Agency  
Garrison, Kirsten / CH2M HILL  
Hamparsumian, Hamlet / Foster Wheeler Environmental Corporation  
Le, Si / Southwest Division, Naval Facilities Engineering Command (SWDIV)  
Leibel, Katherine / Department of Toxic Substances Control  
Monroe, Bruce  
Palakur, Sri / Foster Wheeler Environmental Corporation  
Tamashiro, Pei-Fen / NAVWPNSTA Seal Beach and RAB Navy Co-chair  
Willhite, Lindi / RAB Community Co-chair  
Whittenberg, Lee / City of Seal Beach  
Wong, Bryant / CH2M HILL  
Young, Mel/ Foster Wheeler Environmental Corporation

WELCOME

At 7:00 p.m., P. Tamashiro, Navy Co-chair began the meeting by welcoming the participants and introducing L. Willhite, the Community Co-chair, and S. Le, the Remedial Project Manager (RPM) from SWDIV. P. Tamashiro also introduced a new RAB member, J. Carmody.

P. Tamashiro apologized that the Commanding Officer, Captain R.A. Mirick and the Public Affairs Officer (PAO), Gregg Smith were both out of town and would not be able to attend the meeting. Participants were urged to direct any issues to P. Tamashiro or G. Smith and reminded that contact information is available in the Installation Restoration Program (IRP) mailer.

There was a round of self-introductions for the benefit of new RAB member, J. Carmody. P. Tamashiro announced that a potential new member, Bill Ladner, might attend the RAB meeting, but had not arrived yet.

P. Tamashiro announced that the agenda, handouts, and table-top brochure were available to the group for their reference during the meeting. She reminded the group that the table-top brochure contains an aerial photograph of the base which identifies the IRP site locations and that the table top brochures should be returned at the end of each meeting for use at future meetings. Each RAB member should already have his/her personal copy.

PROJECT HIGHLIGHTS

S. Le provided the RAB with an overview of the progress at the NAVWPNSTA Seal Beach's IRP sites. The following sites were discussed:

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- Site 5- Fill Disposal Area, Removal Action
  - Site 7 - Station Landfill, Engineering Evaluation and Cost Analysis (EE/CA) and Action Memorandum (AM)
  - Site 73 - Water Tower Area, EE/CA and AM
  - SWMU 24 - Demilitarization Facility, EE/CA and AM
  - Site 14 - Abandoned leaking Gasoline Underground Storage Tank, Baseline Groundwater Survey Investigation
  - Site 40 - Concrete/Pit Gravel Area and Site 70 - Research, Testing, and Evaluation (RT&E Area), Groundwater Monitoring Program
  - Site 40 and Site 70, Feasibility Study, Proposed Plan, and Record of Decision (ROD)
  - Site 40 and Site 70, Treatability/Pilot Study

Copies of the Project Highlights slide presentation were made available as handouts at the meeting. Questions and answers made during and after the presentation are summarized below:

**Slide 9**

**Question:** Which area of Site 14 were the new monitoring wells installed?

**Answer:** A presentation will be given for Site 14 this evening and your question will be addressed then.

**General**

**Question:** You mentioned in your presentation that Site 5 field work was delayed only one week by the terrorist events of September 11<sup>th</sup>. Were there any other delays at Site 5?

**Answer:** The start of the project was slightly delayed as a result of the September 11<sup>th</sup> terrorist attacks. The overall schedule for accomplishing the work at Site 5 was extended primarily because additional debris and contamination at Site 5 encountered at depths further than anticipated. This did require additional field work and additional costs were incurred. The project is now back on track and proceeding according to plan.

**PRESENTATION – FIRST QUARTER 2002 GROUNDWATER MONITORING  
INSTALLATION RESTORATION PROGRAM, SITE 14**

P. Tamashiro introduced S. Palakur, from Foster Wheeler Environmental Corporation, who provided the RAB with an update on Groundwater Monitoring at the Former Leaking Gasoline Underground Storage Tank (Site 14).

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

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## Slide 14

**Question:** What would cause the changes in the groundwater gradient at Site 14?  
Tidal influence?

**Answer:** Yes, tidal fluctuations would cause the changes in the groundwater gradient.

## General

**Question:** Are the tanks leaking?

**Answer:** Yes, they were detected to be leaking and were, therefore, removed in 1984.

**Question:** Has any remediation been conducted?

**Answer:** Other than the Stanford University studies at this site which tested various types of treatment, only studies of the contamination have occurred thus far. However, use of the tanks was discontinued in 1984 (and the tanks were removed). It should be noted that soil borings were also conducted before groundwater monitoring wells were installed. Soil samples were taken and no soil impacts were observed. Therefore, it appears that only groundwater has been impacted.

**Question:** So TCE (trichloroethene) or PCE (perchloroethene) contamination is no longer found?

**Answer:** That's correct. In 1999, groundwater sampling found TCE contamination in the groundwater, however, the October 2001 groundwater sampling did not detect TCE or PCE. Hydropunch groundwater samples collected earlier last year (April 2001) did not detect contamination either.

**Question:** What happened to the TCE and PCE contamination between 1999 and 2001? Did they naturally degrade?

**Response by P. Tamashiro:** We do not know. The TCE and PCE groundwater contamination plume is small and isolated and with tidal influence, the plume shape is not constant and may shift. At the low concentrations that they were earlier detected, detection of contamination is sometimes "hit or miss."

**Question:** Did the study conducted by Stanford University depict natural attenuation?

**Response by P. Tamashiro:** This was not the purpose of the study. My recollection of the study's purpose based on documents I have reviewed in the past is that the study was intended to be a case study of a unique location with tidal influences to study *in situ* bio-enhancement and assist with the process of natural biodegradation.

**Question:** The Stanford University study didn't predict how long the plume would take to degrade?

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take to degrade?

**Answer:** No, it did not.

**Question:** What is the history of the leaking underground storage tanks (UST) prior to 1984, when they were removed? How many years were they used before they were removed in 1984?

**Answer:** I'm not sure, I don't have the data with me tonight. An estimate would be more than 10 years. Unfortunately, the UST Program was not as comprehensive back then and we don't know how long after the tanks were installed that they began to leak. The UST installation date could possibly be pulled from study reports and will be included in the meeting minutes. (A review of the records of the UST after the meeting indicated the year of installation is missing from the records.)

**Comment by H. Hamparsumian:** It is important to remember that the groundwater contamination plume is not that large. While it looks large in the graphic shown in the presentation tonight, it is only 150 feet wide at its widest point and 250 feet long. The center of the plume is near groundwater wells #1 and #2, where concentrations are highest.

**Comment by P. Tamashiro:** The theory is that the tidal influence is helping retardation of the plume. This is a condition that has been observed in a lot of tidal situations.

**Question:** Is data available to show to what extent contamination is mixed in with water in adjacent soils and mudflats, which in turn would affect worms and other soil-dwelling species that inhabit areas?

**Comment by P. Tamashiro:** Do you mean the mudflats within the National Wildlife Refuge (NWR)?

**Question:** Yes. From the graphic, it looks like the plume extends beyond the railroad tracks and into the NWR. If the tides are influencing and retarding advancement of the contamination toward the NWR, how does the water underground not get contaminated?

**Answer:** No groundwater contamination has been detected in this area. Bechtel installed two monitoring wells at Site 5 (Fill Disposal Area) and no groundwater contamination related to Site 14 was detected.

**Comment by P. Tamashiro:** The groundwater monitoring wells at Site 14 were positioned to capture the contaminated plume area in its entirety. The location of the wells were based on the contours of the site and it was determined that the edge of the plume was along the railroad tracks. Beyond the railroad tracks, only trace amounts of hydrocarbons were detected and it was determined that there were no impacts on natural resources associated with Site 14 groundwater contamination within the NWR.

BREAK

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

PRESENTATION – NON-TIME CRITICAL REMOVAL ACTION, IRP SITE 5 - CLEAN FILL DISPOSAL SITE

P. Tamashiro introduced H. Hamparsumian from Foster Wheeler Environmental Corporation, who provided the RAB with an overview of the non-time critical removal action at Site 5. P. Tamashiro also introduced M. Young, an unexploded ordnance (UXO) expert with Foster Wheeler and indicated that any UXO-related or hazard/safety questions at Site 5 could be directed to him.

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

**General**

**Question:** Who conducted the initial sampling for ordnance at Site 5? It seems that we missed about an acre-and-a-half of materials with our prior sampling and it was discussed that some of the contamination was not detected until excavation of the site began. Someone should go back and think about how best to sample sites like this so we are not surprised in the future.

**Answer:** Yes, earlier investigations had been done at Site 5. The difficulty with investigating Site 5 is that because of the rumored presence of UXO at this site, previous sampling had to be limited to the periphery of the site so as to avoid contacting buried UXO and possibly detonating it. The intent of the earlier investigations was to determine the chemical contamination that might be occurring as a result of past disposal activities at Site 5. Past investigations were somewhat successful in achieving this in that originally 19 borings were installed and the original boring logs did identify the black material that was later observed during the removal action. The intent of the borings was not to find buried UXO. The only way you find buried UXO with borings is to run into it (which is what you want to avoid).

**Question:** What was the diameter of the soil bores?

**Answer:** Borings are 2 inches in diameter.

**Question:** Did a detailed investigation limited to areas within the site suspected to contain ordnance save the Navy money? In other words, using borings to trace or delineate the locations of UXO would cost extra money compared to excavation and pot-holing?

**Answer:** Typical UXO sites would require each anomaly identified by geophysical technologies to be dug manually. However, for Site 5 it was more feasible to excavate the entire site because the geophysical survey indicated large areas of anomalies. Ordnance was not fired (therefore, somewhat safer) and we had the ability to do certain things which would move faster and

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allow us to clean the site up more quickly.

**Question:** My understanding is that the removal action is expected to result in the creation of 4 acres of wetland. Will the site ever return to a fully functioning wetland and is there a way to measure this?

**Answer:** All the contamination at Site 5 with the potential to impact the environment has been removed. While upland vegetation would be applied to upland areas surrounding the site, no additional plantings are anticipated to be needed.

**Comment by J. Bradley:** The site is expected to function as a wetland without a great deal of human involvement. While we don't have data for the original condition of Site 5 before it served as a clean fill disposal site about 50 years ago, we anticipate that within a few years the site would look much like the restored area east of Kitts Highway. It is not anticipated that the site would require any type of human assistance (i.e., wetland species planting). Native species such as pickleweed and salt wort would establish on their own. There is plenty of seed bank in this area and the species could re-colonize quicker than we might think.

It would be interesting to set up a transect and measure the progress of natural restoration, however a re-colonization study would take 20 years or more.

**Comment by B. Monroe:** Restoration of this area would be of great educational value to the 9 million school children located within one hour of the NWR, especially if it flourishes and returns to a fully functioning wetland.

**Comment by P. Tamashiro:** Consideration of the safety hazard to visitors at the NWR across the Kitts Highway from the Natural Center was definitely part of the Navy's funding approval process for the removal action at Site 5.

**Question:** Is the Site 5 removal action complete with only demobilization activities remaining to be accomplished?

**Answer:** Yes.

**Question:** When conducting the geophysical investigation for anomalies on the site, did UXO buried at lower depths show up?

**Response by M. Young:** Geophysical anomalies occurred at the surface level on the east side of the site following the confirmation geophysical survey and after the completion of the excavation. Excavation occurred down to the native ground (clay layer). This is a good indication that all UXO was collected.

Geophysical anomalies on the eastern side of the site, were associated with the backfilled cover material at depths from 1 ½ feet deep to 3 feet deep. Anomalies in this portion of the site were shown as yellow and/or green areas on the graphic shown earlier. These anomalies for the most part are

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due to small items left in the soil after screening was conducted. These anomaly areas will still be revisited and items will be picked up by hand, however the screening process is considered thorough enough to be sure that all ordnance was collected.

Areas that were excavated to the native clay layer were checked with a metal detector to ensure that no metals exist within the clay. If metals were detected, they were collected.

The UXO supervisor confidence level is high that any remaining anomalies do not pose a threat. All backfill was screened a minimum of 5-times and it is anticipated that all UXO was removed.

There were 3 instances specific to the removal action at Site 5 that helped to complete the job successfully and with minimal problems:

- 1) The site was lined with native clay, which reduced water seepage from surrounding wetlands.
- 2) Hot weather dried wet soils quickly and facilitated screening activities.
- 3) There were low tides over the two-week removal period, so tidal waters entering the site were not a problem.

**Question:** Were the 55-gallon drums discovered at Site 5 empty?

**Answer:** They contained a greasy substance, with no smell. The substance was similar to cooking grease produced by a Mess Hall. A hazardous material categorization will occur on the contents of the drums this Friday (March 15, 2002).

**Question:** Were rail cars used for transportation of material off site?

**Answer:** Yes. Ninety-four rail cars were filled with material for transportation off site to a permitted disposal facility.

## COMMUNITY FORUM

P. Tamashiro opened the Community Forum by revisiting an issue raised at the January 2002 RAB meeting by Kim Foreman, Public Participation Specialist with DTSC. It was suggested that the location of the RAB meeting be moved off the Naval Weapons Station due to increased security on the base and associated difficulty with RAB meeting attendees gaining access to the meeting site. P. Tamashiro requested that RAB members express their meeting location preference officially for inclusion in the meeting minutes. L. Whittenberg commented that, while he had no problem with the meetings continuing to be held on the Naval Weapons Station, the Seal Beach City Council would be willing to offer the City Council Chambers for future meetings, if needed. No further comments or suggestions were made. None of the RAB members expressed the desire to change the location of the RAB meetings. Therefore, as part of these official meeting minutes, it is reported that the RAB meetings will continue to be held at Naval Weapons Station Seal Beach until further notice.

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P. Tamashiro regretfully informed the RAB participants that Philip Bettencourt's wife had passed away over the Christmas holiday season and that a card was being circulated for attendees to express their condolences.

P. Tamashiro closed the Community Forum by reminding participants that the next RAB meeting would be held on Wednesday, April 10, 2002.

#### ADJOURNMENT

P. Tamashiro concluded the meeting by thanking everyone for attending and reminding the attendees to please return their badges and sign-in before leaving. The meeting was adjourned at 9:02 p.m.