

MINUTES  
NAVAL WEAPONS STATION (NAVWPNSTA) SEAL BEACH  
RESTORATION ADVISORY BOARD (RAB)  
AND COMMUNITY MEETING  
SITE TOUR  
July 8, 2008

Participants:

Chauvel, Tim / Department of Toxic Substance Control (DTSC)  
Bettencourt, Phil / City of Newport Beach  
Dadakis, Jason / Orange County Water District  
Fu, Christina / Department of Toxic Substance Control  
Hannon, Patricia / Regional Water Quality Control Board (RWQCB), Santa Ana Region  
Jordan, Jack / RAB Community Co-chair  
Lee, Karen / Community Member  
Lee, Larry / Community Member  
Leipzig, Vic / Huntington Beach Independent  
Niou, Stephen / Department of Toxic Substance Control  
Salazar, Cindy / CH2M HILL  
Smith, Gregg / NAVWPSNTA Seal Beach, Public Affairs Office (PAO)  
Sovich, Tim / Orange County Water District  
Sullivan, Jennie / Naval Facilities Engineering Command, Southwest (NAVFAC SW)  
Tamashiro, Pei-Fen / NAVWPNSTA Seal Beach, RAB Navy Co-chair  
Wong, Bryant / CH2M HILL

WELCOME

Before the site tour, P. Tamashiro indicated a correction on the January 2008 Meeting Minutes. She indicated that the date on the first page of the minutes should say "January 15, 2008" and not "2007".

At 6:00 p.m., P. Tamashiro, Installation Restoration (IR) Program coordinator and Navy Co-chair, began the site tour by welcoming the participants. She introduced G. Smith, NAVWPSNTA Seal Beach PAO and J. Sullivan, NAVFAC SW who will be taking S. Le's place as Remedial Project Manager (RPM). P. Tamashiro introduced B. Wong, Navy contractor with CH2M HILL and site tour leader, and requested that attendees turn off their cell phones and to refrain from smoking while on the site tour. She also indicated that participants should bring along a jacket or sweater for warmth, as it tends to get chilly by the end of the two-hour tour.

Attendees were asked to introduce themselves.

B. Wong distributed a site map showing the locations of the sites that would be visited and/or discussed during the tour. B. Wong reminded the site tour participants that the tour would last approximately two hours and end around 8:00 p.m. B. Wong stated that while the participants would not be exposed to hazardous or toxic materials during the tour, they were requested to stay together for safety reasons. He encouraged participants to ask questions during the site tour.

Questions and answers discussed during the site tour are summarized below.

*Note: The following contains only questions and answers discussed at formal stops along the tour. Informal discussions were not recorded, including those held while viewing sites from within the vehicle and during travel between sites.*

**SITE 22**

**OIL ISLAND**

*Representatives from BreitBurn Energy (Jeff Winkler and Martha Brown) were on site to give an overview of the site.*

**Question:** How much oil is pumped per day?

**Answer by Breitburn Energy:** Approximately 70 – 75 barrels of oil and 100,000 cubic feet of gas per day is pumped.

**Question:** Where is the oil transported or sold to?

**Answer by Breitburn Energy:** The gas is transported to a Southern California Gas Company. The crude oil is sold to a company with a refinery and then sold to Bakersfield.

**Question:** Is injection part of the recovery?

**Answer by Breitburn Energy:** Water that is produced is pumped back and reinjected back into the formation.

**Question:** Does the military own the oil?

**Answer:** The Navy purchased the land in 1943 and they did not buy the mineral rights.

**Question:** Is there a closure fund or a clean-up fund?

**Answer by Breitburn Energy:** There is no closure fund yet. It is not part of the ongoing operations. The clean-up fund is a separate fund.

**Question:** Where do you pump the water from the lagoons to?

**Answer by Breitburn Energy:** They are pumped into the holding tanks.

**Question:** Is there any evidence that the wildlife is being harmed from the operations?

**Answer by Breitburn Energy:** There is no direct evidence that the wildlife is being harmed. There are no light or noise mechanisms used onsite. We try to deter wildlife from coming onsite to reduce their sustained exposure to the crude oil.

**Question:** Is the site regulated under the California Coastal Act? And does this limit the number of wells?

**Answer by** No, the site is not regulated under the California Coastal Act. It is

**Breitburn Energy:** exempted under the vested rights exception. Additional permits will be needed if additional wells will be installed. The existing permit limits us to the existing wells.

**Question:** Are there other permits needed for this operation?

**Answer by Breitburn Energy:** No RWQCB permits are needed because we are not discharging water. The island is surrounded by berms at its outer perimeter. The site is sloped to have all surface runoff flow towards the center and this also serves as a spill control feature. No rainwater or surface spills leave the site.

**Question:** Are there sensitive species onsite?

**Answer by Breitburn Energy:** There are no sensitive species onsite. But we have seen Savannah Sparrow, Red Tail hawks, ducks, osprey, crows, sparrows, rodents, bats, ground squirrels.

## SITE 7                      STATION LANDFILL

**Question:** How deep was the landfill?

**Answer:** Based on a study in 1996, the depth to refuse ranges from 0.5 to 4 feet below ground surface, and the maximum depth of refuse ranges from 6 to 11 feet below ground surface.

**Question:** Was most of the landfill excavated?

**Navy Response:** Due to the presence of shallow groundwater, age, and size of the landfill, most of it was left in place and supplemented by a 2-foot minimum dirt cover. Most of the landfill was municipal waste. It was left in place also because we did not want to disturb the wetlands. The groundwater monitoring indicated the refuse in the landfill did not create a significant concern for human and biological receptors.

**Question:** What is the purpose of the fencing?

**Answer:** The silt fence is used to prevent erosion and to prevent the silt from migrating to the adjacent wetlands.

**Navy Response:** The waste was not exposed on the surface. There is a minimum 2-foot soil cover. Native vegetation is being established and has covered more than 50% of the site to date.

**Question:** Is the cover from excavation or fill?

**Answer:** Mostly fill.

**Question:** Where is the material for the cap from?

**Answer:** The material is from the Station's dredge material stockpile and excavated clean soil from the Site 5 removal action.

**Navy Response:** When material was used from Site 5, it yielded better vegetation and native plants. When fill was used from offsite sources, it was less successful in re-establishing vegetation. About 50-60% of Site 7 has a vegetative cover and most is native vegetation.

**Question:** When did the Site 7 response action take place?

**Answer:** The response action took place between December 2003 and April 2004.

**Question:** Is the vegetation difficult to grow?

**Navy Response:** Yes, it was seeded twice. Re-establishing the vegetation has been difficult. It appears the soil from Site 5 is more successful in re-establishing vegetation than soil from other sources. The first winter after the first re-vegetation effort was a dry winter as well.

**Question:** Was the dredge material from the channel not a good source for the topsoil?

**Navy Response:** The dredge material was used for the base but not for the topsoil.

**SITE 74** **FORMER SKEET RANGE**

**Question:** What is the white stuff on the lead shots?

**Answer:** The whitish coating on the lead shots indicates oxidation.

**Question:** Were the shots lying on the ground?

**Answer:** The lead shots were found in the first top foot of the soil. None were found deeper than 1-2 feet.

**Question:** What is the status of the site?

**Answer:** A Net Environmental Benefit Analysis (NEBA) and the Engineering Evaluation/Cost Analysis (EE/CA) are being prepared. These documents are used to compare the pros and cons of various cleanup alternatives. The NEBA and EE/CA were used to present the facts through the use of standard acceptable methods. The Environmental Protection Agency (EPA) approved NEBA was used as an acceptable approach to help quantify the value of the natural resources.

**Question:** What are these buildings (southeast of the site)?

**Navy Response:** The buildings are not part of the site. One of the buildings was used to process munitions for reuse. The other building is currently used as a wood shop.

**SITE 70** **RESEARCH, TESTING, AND EVALUATION AREA**

**Question:** What is the density of TCE?

**Answer:** About 12 lbs per gallon of TCE.

**Question:** Are you treating the contamination now?

**Navy Response:** We had a kickoff meeting today. The installation of wells was completed in September 2007. We just received funding for the injection, but first we need to do a baseline study before starting the injection in September.

**Question:** Will new bugs be used?

**Answer:** We will first inject emulsified vegetable oil to condition the groundwater, then a bacteria culture, called KB-1, will be injected to augment the degradation.

**Question:** Are the buildings still in use?

**Answer:** Yes, but not for the same purpose. All of these buildings are historic buildings that were used for the Apollo program. We are in discussion with the State Historic Preservation Office (SHPO) to have these buildings de-listed as a historic site.

**Comment:** The contamination at this site was not caused by the Navy. I wonder if the Navy is planning on taking any actions against the party that caused the contamination.

**Navy Response:** The contamination was caused by past activities by a contractor to the federal government. The Navy is currently evaluating its legal options for cost recovery.

**Question:** Do the potentially responsible parties involved question this approach?

**Answer:** No, the Navy has not involved the potentially responsible party into the cleanup process of this site.

**Question:** Is this test system pumping up the water and then injecting sodium lactate?

**Answer:** The system you are looking at was installed by a Navy contractor that is conducting a research project here at Site 70. It is a recirculation system, where groundwater is pumped out of the ground to create an increase in groundwater flow velocity. The purpose of this project is to compare a recirculation system with a passive treatment cell system. In reality, when we implement the remedial action at Site 70, we are also going to pump groundwater from nearby wells to inject the vegetable oil into the ground. The reason why we avoid using fresh water from the hydrant is to avoid creating an artificial mound on the groundwater table.

**Question:** Site 40 was not successful with the use of sodium lactate?

**Answer:** It was not completely successful because of the geology. We needed to add hydrogen-release compounds (HRC) at locations that have tight geological formation.

**Question:** Is the Regional Water Quality Control Board involved?

**Answer:** Yes, they are providing oversight. They concur with this approach and are actively involved. They, along with the Navy, and DTSC have signed off on the Record of Decision (ROD).

**Question:** What are these tanks used for?  
**Answer:** The middle tank stores water to be used in the event of a fire for firefighting. The other two tanks have been cleaned, along with the piping. They have been decommissioned.

**SITE 40**                      **CONCRETE PIT AND GRAVEL AREA**

**Question:** What is the main contaminant?

**Answer:** The main contaminant is perchloroethylene (PCE).

**Question:** What is HRC?

**Answer:** HRC stands for hydrogen release compound. It has the consistency of molasses and treats the upper pores and less permeable areas for slower diffusion. The degradation of PCE in the shallow zones stalls due to insufficiency in sodium lactate distribution. HRC will be used to treat these areas.

**Question:** How long will this process take?

**Answer:** Approximately three years.

**Question:** Will you be able to control the leading edge of the plume?

**Navy Response:** The groundwater gradient is flat and the plume is slow moving.

**Question:** What is the concentration of the PCE?

**Answer:** The highest concentration is less than approximately 80 parts per billion (ppb).

**Question:** Are there any other sources contributing to the contamination?

**Answer:** No. The two sources of the plume are the discharge points and from under the locomotive maintenance facility.

P. Tamashiro discussed Site 5. This is the site of approximately 3 acres of wetlands that was created after the removal action was completed in 2002. Approximately 1,000 rounds of munitions were found at the site, most of them inert.

**Question:** How did you use to locate the munitions?

**Navy Response:** We used a geophysical survey, and had retired Explosive Ordnance Disposal (EOD) specialists and civilian contractors help with the clean-up.

G. Smith mentioned that the NAVWPNSTA RAB website will be upgraded and will include the latest information and news. DTSC has hard copies of all the reports.

**Question:** How does Seal Beach Naval Weapons Station compare with other clean-ups at the other Naval Stations?

**G. Smith** NAVWPNSTA is on the cutting edge. They are the first to use large scale  
**Response:** bioremediation in the form of bio-barriers, such as the ones in Site 70, in  
the Navy.

P. Tamashiro encouraged the site tour attendees to contact her via telephone or e-mail with any additional questions. The next RAB meeting would be held in September 2008.

#### ADJOURNMENT

P. Tamashiro adjourned the meeting at approximately 8:00 p.m.

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