

MINUTES
NAVAL WEAPONS STATION SEAL BEACH
RESTORATION ADVISORY BOARD
AND COMMUNITY MEETING
Naval Weapons Station Seal Beach Site Tour
July 22, 2015

PARTICIPANTS:

Participants:

Bettencourt, Philip/Community Member

Cummings, Esther/Friends of Seal Beach National Wildlife Refuge (NWR)

Feenstra, Chuck/Community Member

Gilkey, Doug/KCH

Gilligan, Kirk/U.S. Fish and Wildlife Service (USFWS)

Harpham, Ken/Community Member

Hannon, Patricia/Santa Ana Regional Water Quality Control Board (RWQCB)

Jordan, Jack/Restoration Advisory Board (RAB) Member

Koppel, Gaylen/Community Member

Niou, Stephen/California Department of Toxic Substances Control (DTSC)

Outland, Don/Community Member

Pierce, Jim/Richard Brady and Associates (BRADY)

Reese, Brenda/Remedial Project Manager (RPM), Naval Facilities Engineering Command (NACFAC) Southwest

Roberts, Carol /USFWS

Shields, Tim/BRADY

Smith, Gregg/Public Affairs Officer, Naval Weapons Station (NAVWPNSTA) Seal Beach

Smith, Patricia/Friends of Seal Beach NWR

Tamashiro, Pei-Fen/RAB Navy Co-Chair, NAVWPMSTA Seal Beach

Vance, Carolyn/ Friends of Seal Beach NWR

Vesely, Gene/RAB Member

WELCOME

Pei-Fen Tamashiro welcomed attendees to the Site Tour at 6:00 pm at NAVWPNSTA Seal Beach. Attendees were asked to sign-in. P. Tamashiro then described the sites that the tour will visit, explained that the tour would proceed through safe areas but asked that the group stay together, not take photographs, and turn off cell phones. P. Tamashiro introduced Brenda Reese (Remedial Project Manager), Gregg Smith (NAVWPNSTA Seal Beach Public Affairs Officer), Stephen Niou (California Department of Toxic Substances Control), Patricia Hannon (Santa Ana Regional Water Quality Control Board) and Carol Roberts/ Kirk Gilligan (United States Fish and Wildlife Service).

SITE TOUR

The tour proceeded to the following sites:

- The upgraded small arms range
- Installation Restoration Program (IRP) Site 74, the Former Skeet Range
- UXO 1, Primer/ Salvage Yard and Port of Long Beach Mitigation Pond
- IRP Site 7, the Former Station Landfill
- UXO 6, Westminster Port of Long Beach Fill Area (drove past in the vehicles)
- IRP Site 70, Research, Testing, and Evaluation Area

At the small arms range, P. Tamashiro introduced Lt. Levin. Levin, who has been on base one year, described the series of projects to upgrade the range of the past approximately 5 years, the challenge of funding, and the consensus to upgrade the range. He described the primary concern was the excessive number of columns supporting the cover over the shooting gallery which contributed to bullet ricochet and fragmentation leaving the range. The new upgrades, costing \$2,000,000 and 95% complete, consisted of removing the columns, installing a ballistic rubber bullet trap to capture the lead, and lining the sidewalls and any exposed metal beams and surfaces with granulated rubber. The vast majority of the columns have been eliminated. P. Tamashiro explained that in the past it was a dirt range that was unusable in wet weather. The floor was changed to concrete and the water collected and diverted to a retention pond to be tested and either allowed to evaporate, or possibly pumped out or recycled for appropriate non-potable range uses. This collection system has been retained in the new range design.

Questions and answers discussed at the small arms range are summarized below.

Question: *What about ricochets at the new range?*

Answer: *The new range has not been used yet but there are data on the range prior to the renovation that will be used to compare with the new range, once in operation.*

Question: *Do you have a construction completion date?*

Answer: *It is about a week out from completion.*

Question: *Who will be able to use the range? Law enforcement agencies?*

Answer: *Although other agencies have been allowed access in the past, the use of the range recently has been limited to Navy's mission-essential training prior to the upgrade. The decision for future use has not been finalized yet.*

Question: *What are the protocols for dealing with the spent bullets?*

Answer: *You will be able to take a look at the bullet trap. We will recover and recycle the spent bullets. Lt. Levin distributed a handout with pictures contrasting the old and new range and mentioned this is much better than the forest of columns and*

shooting into dirt. He then introduced a representative of the construction contractor, Reyes Inc. The contractor described the new bullet trap as being 18 inches of granular rubber. Pistol rounds penetrate approximately 6 to 8 inches and rifle rounds penetrate approximately 12 to 14 inches. Lead settles to the bottom where it is periodically collected.

Question: *Is there no need for the range to be completely covered due to the new design?*

Answer: *Yes, the new design will prevent the escape of rounds. P. Tamashiro explained that the Navy will continue to monitor for ricochets after the range operations resume. The first survey is scheduled for 6 months after operations resume, but observations will be made before then.*

Question: *How long does it take to remove the rubber bullet trap and recover spent rounds?*

Answer: *About 4 hours. A vacuum system will be used.*

Question: *We are adjacent to Site 74 but this is not Site 74?*

Answer: *Correct.*

Question: *The new targeting system is all electronically controlled?*

Answer: *Yes.*

The Reyes contractor then gave a demonstration of the target controls.

Question: *Do they shoot at moving targets?*

Answer: *No.*

Question: *What is the difference between the ranges?*

Answer: *Other range has center columns.*

Question: *Are the targets bullseyes?*

Answer: *They are upper torso paper targets.*

Question: *Does the equipment need rain protection?*

Answer: *No, it is all weather resistant. This system has been installed in Iceland and Saudi Arabia.*

Question: *Who do you call if it malfunctions?*

Answer: *The manufacturer.*

Question: *How do you attach the target?*

Answer: *It clips on.*

Question: *Where is the manufacturer?*

Answer: *Atlanta, Georgia. Navy contracts are buy American.*

Question: *What is the maximum bullet size?*

Answer: *50 Caliber.*

Question: *Shotguns?*

Answer: *They are used at the other range. We stopped them from using slugs, only shots, so they don't go far.*

The group then walked to Site 74, the Old Skeet Range. P. Tamashiro pointed out the foundation of the former trap house and the shooting positions (concrete lanes) of the range that operated from the 1960s to 1990s. She explained that there were several rounds of investigation and soil sample collection. In 2005 an ecological risk assessment was done, and it was apparent that remediation was needed. At the end of 2014 the Feasibility Study was completed with Option 4 being chosen as the remedy. P. Tamashiro showed a map of planned hot spot excavation in the wetland area to minimize wetland damage, and mentioned the complete excavation and cap in the upland area.

Question: *Are you doing selective excavation in the wetland area?*

Answer: *Yes, amphibious excavation. Restoration will occur afterwards.*

Question: *Is there currently drainage control at the site to protect the wetlands?*

Answer: *The existing topography has a high area that tends to prevent drainage from the upland to the wetland.*

Question: *What is the total volume to be excavated?*

Answer: *About 8½ acres in the upland area and 2 acres in the wetland will be excavated to a depth of 1 foot.*

Question: *Will the excavated materials be taken offsite?*

Answer: *Yes.*

Question: *Does spent shot migrate downwards?*

Answer: *First looked at this in 2000. Some shot is oxidized but it doesn't sink down. Lead can stay in soil a long time before it is mobile. Our studies show it remains in the top 1 foot.*

Question: *Is lead oxide soluble?*

Answer: *Only under certain conditions – lead tends to be immobile in soil.*

Question: *Do the targets present a risk?*

Answer: *They contain polynuclear aromatic hydrocarbons (PAHs), and areas containing those will be removed also. It is a contaminant of concern that is being targeted for removal.*

Question: *What is the purpose of the cap and what will the elevation be?*

Answer: *The topography will be restored to current conditions.*

Question: *Have the effects of climate change been considered with regard to rising sea level?*

Answer: *That would be a great question to ask in response to the Proposed Plan. Right now the plan is to restore to current topography – but that is not absolutely set yet.*

The group moved to a viewpoint near the edge of MRP Site UXO1. P. Tamashiro described the former uses of the area; the fenced in area was the primer yard where primers were loaded, and the EOD demonstration area where workers were shown the dangers regarding munitions. In the early 1990s, ponds were built to mitigate wetland loss caused by Port of Long Beach construction. During excavation, munitions were encountered. Munitions can still sometimes be seen in the soil along the bank during low tides. More investigations will be undertaken. There is also a former munitions salvage area where some items were released to the ground. A remedial investigation will occur after the birds' breeding season and the risk assessed to help decide the course of action. A related site is MRP Site UXO6, 180 acres along Westminster Blvd. In the process of excavating the ponds at UXO1, soil with munitions may have been moved to UXO6, so it is a secondary site related to UXO1. UXO6 was not one of the tour stops, but it was pointed out when the group drove by the site.

Question: *Do the ponds connect to the ocean?*

Answer: *Yes, through tidal culverts.*

Question: *Will explode-in-place techniques be used during the investigation?*

Answer: *It is not the Navy's preference, but they might be used if it is best for safety. The explosive ordnance disposal (EOD) specialist will make the decision in the field.*

P. Tamashiro then pointed out the drop test tower site, and explained that we will drive by it but not stop. The test tower was in operation from 1955 – 1977 and was used to drop test small munitions. Some munitions have been found there, including explosive caps.

Question: *When will the tower come down?*

Answer: *After the investigation is completed, it will be up to facilities. If it is shown that risk is low, a site closure will be requested. The decision for the demolition will be made after the site has been closed. Right now, the site cannot be disturbed due to potential safety concerns related to the munitions. It will be at least another 1½ years before the site could be potentially closed.*

The group then moved to IRP Site 7, the Former Station Landfill. P. Tamashiro described that the site was used from the 1950s through the 1970s and has a total area of approximately 33 acres. This is one of the most studied sites on the base. A removal action was done in 2003 to remove exposed landfill material. Groundwater was determined to not be affected. The landfill is inundated with sea water all the time. Revegetation has been tried using both seeding and planting, but it is very difficult on the western 1/3 of the landfill cover. Some vegetation is slowly being established. The cover, about 2' thick, is not being eroded. Post-rain season monitoring will occur tomorrow.

Question: *What is the purpose of the berm (straw wattle)?*

Answer: *To prevent sheet flow erosion.*

Question: *Is this a proposed solar site?*

Answer: *No. The potential solar site is near the corner of Edinger and Bolsa Chica.*

Question: *What material was used for the cover, dredge?*

Answer: *Amended fill and some dredge. The east side reused the soil that came from that side. The west side used imported amended fill. Later, soil nutrients were added.*

Question: *Have you tried high marsh plants?*

Answer: *I don't recall but the plant mix was reviewed and approved by all. However, we could possibly look at additional planting.*

The group then moved to IRP Site 70, the Research, Testing, and Evaluation Area. En route the group drove past UXO6. P. Tamashiro explained that the buildings at the Research, Testing, and Evaluation Area were used to build rockets for the Apollo space program and all had a purpose.

Cleanliness was needed during manufacture, so large quantities of the solvent trichloroethene (TCE) were used for degreasing.

TCE has been found in the groundwater of the source area at 16 - 20 feet below ground surface (bgs) to 60 - 65 feet bgs. TCE has migrated approximately $\frac{3}{4}$ of a mile downgradient to depths of 170 - 180 feet bgs. There is an aquitard below which protects the deeper groundwater aquifer at 200 feet bgs and below. Groundwater was treated by injecting emulsified vegetable oil to create anaerobic conditions suitable to bacteria that degrade the solvent chemicals. Remediation system construction began in 2008. By 2015, approximately 90 percent of the TCE has degraded, and breakdown products continue to be degraded.

The buildings at the site are scheduled to be demolished because of their age and condition. They were built in the 60's and are now not seismically safe. By this time next year some of the buildings may be gone. The work will be coordinated so it will not interfere with environmental restoration work. Building 112 and Building 126 will be the first two that are on the demolition list.

Question: *Do you have a map showing the methane plume?*

Answer: *A methane plume map is available in the annual report.*

Question: *What is the TCE plume length?*

Answer: *About $\frac{3}{4}$ mile long. The PAO says the maps are on the NAVWPNSTA Seal Beach public website.*

Question: *How often is EVO injected?*

Answer: *Round one was from the end of 2008 through 2010. At the end of 2013, the first replenishment was completed. It is expected to last another 3 to 5 years.*

Question: *How many spots get treated?*

Answer: *The plume is elongated. Treatment is done through injection wells that were located to cut across the plume to form a barrier that treats the plume as groundwater flows through. There were six barriers. The whole treatment will take approximately 16 years plus 30 to 40 years of monitoring. After that, monitored natural attenuation (MNA) will be used to monitor the degradation of the contaminants.*

Question: *Are there any ongoing efforts of cost recovery from the original non-Navy potentially responsible parties?*

Answer: *Yes. The case is currently handled by the Navy Litigation Office.*

Question: *Are the wells sampled?*

Answer: *Yes, twice a year, the last event was a few weeks ago. The annual sampling event in December collects samples from more wells, and samples are analyzed for more chemicals. The monitoring reports are available on the website.*

ANNOUNCEMENTS

P. Tamashiro announced that the next RAB meeting will be in January 2016.

ADJOURNMENT

With no further questions, P. Tamashiro thanked the group and adjourned the site tour at 8:00 p.m.

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