



MINUTES OF
WAIANAE COAST/NAVY LUALUALEI RESTORATION ADVISORY BOARD
(RAB) MEETING
MAY 20, 2003
NANAKULI HIGH SCHOOL

Note. Meeting minutes have been supplemented with additional comments, shown in italics below, to clarify discussions presented at the Restoration Advisory Board (RAB) meeting.

ATTENDANCE: [Click here](#)

OPENING OF THE MEETING

Mr. John Muraoka, representing Commander Navy Region Hawaii (COMNAVREG HI), opened the meeting at 7:10 p. m. by introducing himself as the Navy RAB Co-chair, replacing Ms. Lisa Chan. He has over 15 years of experience working as a civil and environmental engineer, 12 years of which have been with the Navy.

Mr. Muraoka said he would like to start with attendees introducing themselves and answering the question, "What is your fondest memory of something from Hawaii's environment?" Responses included swimming with dolphins on the Big Island, observing lava flow into the ocean, fishing, Makua Valley, running up and down the Waianae Coast and hiking the Na Pali Coast on Christmas Eve.

Mr. Muraoka mentioned that he would like to make a change to the agenda and defer the community forum portion of the meeting until after the technical presentations.

Old Business

Minutes. The minutes from the Waianae Coast/Lualualei RAB meeting held on November 14, 2002 were ratified.

Technical Presentations

A. Status of Ongoing Installation Restoration activities at Naval Magazine Pearl Harbor, Lualualei Branch (NAVMAG Lualualei) and Naval Radio Transmitting Facility Lualualei (NRTF Lualualei) • Mr. Peter Nakamura (Pacific Division, Naval facilities Engineering Command)

Mr. Nakamura introduced himself and explained that in response to a request from the Pearl Harbor RAB, the Navy will now provide a short status report of all IR activities recently completed or on-going in the RAB area

of coverage at each RAB meeting. Mr. Nakamura presented a map showing the locations of all Navy installations on Oahu, including the NAVMAG Lualualei and NRTF Lualualei.

Mr. Nakamura then presented a summary of ongoing and proposed Navy investigations and restoration activities at NAVMAG Lualualei and NRTF Lualualei. At NAVMAG Lualualei, the Navy is conducting an installation-wide Preliminary Assessment/Site Inspection (PA/SI) and Remedial Investigation (RI) at the former Building 4 Pesticide Shop. At NRTF Lualualei, the Navy is conducting an RI at two sewage ponds. Other IR sites at NRTF Lualualei, scheduled for investigations in the future, were also shown.

Mr. Nakamura presented a schematic showing the response process and previous work completed for the NAVMAG Lualualei PA/SI. This work involved the preparing of SI planning documents, conducting base interviews, facility surveys, field sampling, and screening risk assessments, and preparing a draft PA/SI report. The PA evaluated 659 existing or demolished facilities and recommended 27 of these sites for further study during the SI. Based on the SI results, 20 sites will require additional investigation and possible cleanup actions. These sites include disposal and operations areas, sanitary sewer and storm drain systems, and firing ranges. Mr. Nakamura stated that metals, dioxins, solvents, pesticides, polychlorinated biphenyls (PCBs), and petroleum products have been detected at these sites.

Mr. Nakamura then presented a map showing the locations of the SI sites where additional investigations are recommended and sites where no further actions are recommended. A project schedule was also presented. The draft PA/SI report was published in April 2003 and is available for public review at the Waianae Public Library and Hamilton Library at the University of Hawaii at Manoa. The draft report can also be provided to the RAB upon request. The Navy anticipates that the final PA/SI report will be completed in August 2003. Based on the draft PA/SI results, sites requiring further response actions have been programmed for either removal actions (e.g., where the investigations/cleanup actions relatively straight-forward) or remedial action (e.g., for more complex sites).

Mr. Nakamura presented a schematic showing the response process and RI work completed at the NAVMAG Lualualei Former Building 4 Pesticide Shop site. This work involved the preparing of RI planning documents, field sampling to determine the nature and extent of chemicals of potential concern (COPCs), conducting risk assessments [*i.e., a human health preliminary risk evaluation and screening ecological risk assessment*], and preparing a draft RI report. Several maps were presented showing the location of the site and soil and ground water sample collection sites near the building. A schematic was also provided showing potential ways that human, animals, and plants may be exposed to pesticides, dioxins, furans, and metals present in surface and subsurface soils at the site. These COPCs pose a potential health risk to people and animals. The extent of the contamination and its potential impact on the Mailiili stream, if any, still needs to be determined.

Mr. Nakamura stated that samples of ground water collected down gradient of Building 4 contained solvents and metals. However, these chemicals are not thought to be associated with past activities at the site and the metals may occur naturally in the environment. The ground water is not a current source of drinking water, therefore, does not pose an immediate risk to human health or the environment. However, the Navy plans to further evaluate ground water quality at the site.

QUESTION: What chemicals were found in the ground water? Were furans detected?

ANSWER: Solvents [*chloroform, carbon tetrachloride, and trichloroethene*] and metals were found in the ground water. Furans were also detected at very low concentrations in ground water wells located near the site, both up- and down-gradient of the building. [*The furan concentrations detected were below applicable screening criteria.*] The source of these contaminants is not known and will require additional investigation.

Dioxins and furans tend to cling tightly to soil and therefore do not easily migrate through soil to the ground water table.

Mr. Nakamura said that based on the RI results, the Navy plans to further delineate the extent of contamination in soil, sediment, and ground water and conduct a removal actions, as necessary, to address contamination that presents a risk to human health and the environment. Mr. Nakamura then presented a project schedule. The final RI report should be completed in August 2003. A removal site evaluation to define the limits of contamination and further define human health and ecological risks will start in late 2003. The draft RI report and other related documents are available at the public libraries previously mentioned.

QUESTION: Where will the contaminated soil be disposed of?

ANSWER: The removal action may include the use of one or more technologies (e.g., soil excavation and transport to a mainland disposal facility or possibly other technologies to destroy or reduce the volume of the contaminated soil). However, the Navy must first determine the nature and extent of the contamination and the risk posed by the contaminants prior to selecting an appropriate cleanup method.

Mr. Nakamura then discussed progress on the NRTF Lualualei sewage ponds RI and presented a project approach flowchart and site location map. Planning documents have been prepared and field sampling is scheduled to begin in June 2003. Mr. Nakamura said that two sites are being investigated, the unlined Niulii Reservoir Ponds and lined Building 1 Pond. These ponds provide habitat to some endangered birds such as the common moorhen [*'alae 'ula*] and Hawaiian stilt [*ae 'o*]. The Navy is working closely with U.S. Fish and Wildlife Service (USFWS) to ensure that planned fieldwork will not disturb the birds nor be scheduled during their nesting season. Mr. Nakamura explained that surface and subsurface soil, sediment, and ground water samples will be collected at the sewage ponds and analyzed for solvents, cleaning agents, fuel, PCBs, pesticides, and metals. He also presented a project schedule. The Navy expects to publish draft and final RI reports presenting the results of field sampling and risk assessments in the summer or fall of 2004.

Mr. Nakamura then identified 14 other sites the Navy plans to investigate, over the next few years, at NRTF Lualualei. He explained that the Navy ranks sites based on their potential risk to human health and the environment relative to other IR sites. These 14 sites are considered low-to-medium risk sites; therefore, the Navy is concentrating its current efforts on investigating the Building. 4 and sewage pond sites that may pose a greater relative risk than these other sites.

QUESTION: Can community members visit the investigation site during the field sampling activities?

ANSWER: Possibly. However, site visitors will be required to view the sites from a relative safe distance due to the nature of investigating IR sites. Field workers are typically required to have special training and health monitoring before conducting investigation activities at these sites.

QUESTION [Directed to Ms. Pat Patterson]: Have you received a copy of the meeting minutes from the last RAB meeting?

ANSWER: Yes.

COMMENT: Mr. Nakamura commented that the meeting minutes are rather lengthy because the Navy includes follow-up responses (shown in italics) to questions posed during the meetings.

B. Update on Consolidated Polychlorinated Biphenyl (PCB) Thermal Treatment Project, Various Locations,

Oahu, Hawaii • Ms. Janice Fukumoto, (Remedial Project manager, Pacific Division, Naval facilities Engineering Command)

Ms. Fukumoto introduced herself and summarized Navy efforts to clean up the many small, localized areas of PCB contamination found in soil and concrete (hereinafter, referred to collectively as "soil") near old transformer sites at Navy installations on Oahu, including NRTF Lualualei, NAVMAG Lualualei, and Kalaeloa (former NAS Barbers Point). As part of these efforts, the Navy conducted an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate various methods of, and locations for, treating PCB-contaminated soil. Based on the EE/CA, the Navy recommended to excavate contaminated soil, consolidate this soil in stockpiles located at NRTF Lualualei and former NAS Barbers Point on Navy-retained property, and use thermal desorption (i.e., heat) technology to treat the soil. Ms. Fukumoto stated that the objective of the treatment project is to reduce PCB concentrations in the contaminated soil to provide long-term protection to human health and the environment and allow reuse of the soil.

Ms. Fukumoto presented a map showing the general location of the cleanup sites and stated that additional PCB-contaminated sites may be discovered in the future. Removal action is conducted where PCB concentrations exceed 1 part per million (ppm) [*roughly equal to 1 milligram per kilogram (mg/kg)*] in residential areas or 10 ppm in industrial areas. The sites involved in this project are divided into "Group A", "Group B", or "Group C", depending on when the sites were discovered and added to the treatment project. Approximately 3,300 and 2,300 cubic yards (cy) (for a total of 6,000 cy) of contaminated soil have already been excavated at 21 "Group A" transformer sites at NRTF Lualualei and former NAS Barbers Point, respectively. Contaminated soils has been delineated at 28 Group B investigation sites, but have not yet been excavated. It is estimated that approximately 7,000 cy of soil will be removed from these sites. Contamination at 51 Group C sites is still being delineated. It is estimated that approximately 6,000 cy of soil will be removed from the Group C sites after Group B soils are excavated and treated [*Group A soils will be treated first*]. Additional soil may be generated during the removal actions based on confirmation sampling conducted at each site.

Ms. Fukumoto briefly explained the Navy's PCB delineation and excavation process at the Group C investigation sites. Soil at suspected PCB sites are first sampled to delineate the horizontal and vertical extent of contamination. Based on the analytical results from these sampling events, contaminated soil will be excavated from the sites. After the excavation, the soil remaining in the pit is sampled and analyzed to confirm that PCBs have been removed to cleanup levels of ≤ 1 ppm where the site will be used for residential purposes or ≤ 10 ppm where the site will be used for industrial purposes.

Excavated soil and debris is being consolidated into stockpiles on Navy-retained property at the former NAS Barbers Point and NRTF Lualualei. The Navy plans to transport contaminated soils to a treatment area located near the west border of the former NAS Barbers Point and treat them using thermal desorption technology. A contractor has been hired to install and operate a modular treatment unit beginning in August 2003. The treatment activities are expected to be completed around January 2004 and will reduce PCB levels in soil to ≤ 1 ppm. Treated soil will be returned to the original excavation sites or disposed to an unlined coral pit located near the treatment facility. Ms. Fukumoto presented a "very simplistic" schematic explaining the treatment process and a map showing the general location of the planned treatment unit. She then presented a schedule for the treatment project. The Navy is currently preparing work plans for the project that are expected to be completed in June 2003.

[PCBs are oily liquids consisting of chlorine atoms that are attached to biphenyl. PCBs were commercially produced in the U.S. from 1929 until their production was legally banned under the Toxic Substances Control Act (TSCA) in January 1979. They are not known to occur naturally.]

Note that some of the stockpiled soil excavated from the Group A, B, and C sites also contain chlordane and total petroleum hydrocarbons [TPH] as diesel and motor oil. In addition, some of the Group A stockpiled soil contains low concentrations of Polynuclear Aromatic Hydrocarbons (PAHs) due to activities unrelated to transformers. The treatment unit should remove these chemicals from the soil such that reuse of the soil is safe for human health and the environment. Soil will be tested after treatment to confirm that the following cleanup goals are achieved:

<i>PCBs</i>	<i>1 ppm (mg/kg)</i>
<i>TPH (as diesel and motor oil)</i>	<i>60 ppm (mg/kg)</i>
<i>Benzo(a)pyrene(a fuel constituent)</i>	<i>0.062 ppm (mg/kg)</i>
<i>Benzo(b)fluoranthene (a fuel constituent)</i>	<i>0.62 ppm (mg/kg)</i>
<i>Chlordane (Total, Alpha-, and Gamma)</i>	<i>1.6 ppm (mg/kg)</i>

In addition, contaminated soil located at the former drum crushing area at former NAS Barbers Point contains pesticides and arsenic concentrations greater than applicable regulatory criteria. This soil will not be treated on-island and instead will be transported to a mainland treatment and disposal facility.]

QUESTION: Can the treatment schedule be accelerated to avoid the rainy season in January?

ANSWER: Probably not [*due to the availability of the mobile treatment unit*].

QUESTION: What group of soil will be disposed of in the coral pit?

ANSWER: The coral pit will receive soil that cannot be returned to its origin (i.e., its original excavation site). This soil may consist of Group A, B, and/or C soil.

QUESTION: Will the coral pit be covered with a cap once the treatment and disposal project is completed?

ANSWER: No; there is no need to install a protective cap since the soil is treated to ≤ 1 ppm, which is considered safe for human health and the environment. However, since the treated soil is very sterile, clean organic soil may be used to cover the pit to encourage the growth of vegetation. Note that a separate Consolidation Unit (CU) located at former NAS Barbers Point will be capped to protect humans, animals, and plants from contaminants disposed at this site.

[In addition, the coral pit is not required to be lined because the soil will be treated to safe levels].

RAB Community Forum

Mr. Muraoka announced that Mr. Merwyn Jones had resigned as community co-chair for the Waianae Coast/ Lualualei RAB. He then asked if any of the RAB members present would be interested in serving as an interim or permanent co-chair.

QUESTION: What are the responsibilities of the co-chair position?

ANSWER: The community co-chair is not required to attend every meeting, although consistent attendance is encouraged. The chair person's job entails gathering information at the RAB meetings; disseminating this information to the local community; meeting with other RAB members to discuss environmental restoration

issues, expressing community concerns to the Navy; helping to schedule RAB meetings and choose meeting locations, and critiquing Navy presentations (e.g., Are they too technical or too simple?). For example, Mr. Mike Miura, the Pearl Harbor RAB Community Co-chair, typically meets with Navy representatives before and after each meeting to discuss the meeting agenda, presentations, and community input. The role of the co-chair is flexible and can be tailored per the desire and preferences of the co-chair volunteer.

Ms. Cynthia Rezendes volunteered to be an interim co-chair for the RAB as her schedule permits [*other RAB members present affirmed her appointment*].

QUESTION: What are the results of the community interviews recently conducted? Is the Navy implementing community involvement activities identified during the interviews to encourage RAB membership?

ANSWER: A Community Involvement Plan (CIP) is currently being prepared that will present the interview results and outline a plan and specific steps to be taken to encourage community involvement in the RABs and other community outreach efforts associated with the Navy's Environmental Restoration Program.

Mr. Muraoka requested assistance from RAB members to update the RAB membership list by identifying members they know are no longer interested in participating in the RAB or providing names of community members that are or may be interested in participating.

COMMENT: The RAB should decide who is going to contact whom on the list. [*Ms. Rezendes will work with Bill Roome to update the RAB membership roster.*]

Mr. Muraoka announced that the board had received three membership applications and requested that RAB members either approve or deny these applications (some of the applications have been on file without action for more than a year). The RAB then approved membership for all of the applicants (i.e., Mr. Tom Lenchanko, Mr. Dan Madeira, and Mr. Eric Enos).

Open Discussion on Technical Presentations and Other Issues

Mr. Muraoka opened the meeting to other questions and discussion.

COMMENT: Thank you for defining acronyms used in the meeting presentations [*per previous request from the RAB*].

QUESTION: Do current Navy activities result in [negligent] polluting of the environment?

ANSWER: No. The Navy's IR program addresses past releases of hazardous substances that may require investigation and cleanup. Many releases were the result of past practices, prior to the enactment of today's environmental laws and regulations. For example, in the past, PCB samples were simply dumped on the ground after tests were performed on transformers; this practice is not allowed today. The Navy's current operations are in strict compliance with Federal and State environmental laws and regulations.

[*The Navy now has operating protocols; systems to track and account for chemical use, storage, and disposal, and; chemical spill response plans and systems in place to reduce the occurrence of chemical spills, promptly cleanup such spills when they do occur, and ensure that chemicals are properly disposed of after their use. All operations are conducted in accordance with existing environmental laws and regulations.*]

The meeting was adjourned at 8:30 p.m.

[The Navy posts RAB meeting minutes and other IR information on the Navy environmental restoration website: <http://www.hawaii.navy.mil/CNBDATA/n4/rabpage.htm>.]

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