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NSWC WHITE OAK
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RESTORATION ADVISORY BOARD MEETING MINUTES 13 APRIL 2004 NSWC WHITE OAK MD

4/13/2004

NSWC WHITE OAK

Former Naval Surface Warfare Center-
White Oak (NSWC-WO)
Riderwood Village, Calverton, MD
Restoration Advisory Board (RAB) Meeting Minutes
April 13, 2004

RAB Members Present at Meeting

Matthew Amann – Food and Drug Administration (FDA)
Bruce Beach – U.S. Environmental Protection Agency (EPA), Region III
Andy Zarins – Maryland Department of the Environment (MDE)/Superfund Division
Walter Legg – U.S. Navy, Engineering Field Activity Chesapeake (EFACHES), Navy Co-Chair and White Oak Base Environmental Coordinator (BEC)
Paul Meyer** – Prince George's County Health Department
Steven Richard – General Services Administration (GSA)
John Tino – Community Co-Chair
Paul DeLeo – Food and Drug Administration (FDA)/National Treasury Employees Union (NTEU), Chapter 282
John Feustle – U.S. Army Adelphi Laboratory Center
Hall Crannell*
Richard Price – Community Co-Chair

RAB Members Absent from Meeting

Barbara Medina
Gary Irby
Mark Symborski*** – Maryland National Capital Park and Planning Commission (M-NCPPC)

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* Subcommittee 1 – Groundwater, Chairperson
** Subcommittee 2 – Landfills and RI/FS, Chairperson
*** Subcommittee 3 – Base Realignment and Closure (BRAC) Environmental Study Team (BEST, Chairperson)

WHITE OAK RAB AND PROGRAM-RELATED DOCUMENTS ARE AVAILABLE AT THE WHITE OAK COMMUNITY LIBRARY IN SILVER SPRING, MARYLAND

1. **Welcome/Introductions** (John Tino)

Mr. John Tino opened the meeting at 7:40 p.m. and welcomed everyone. Ms. Bretz requested that Mr. Dye, MDE, and the EPA develop a recognition process for the "best RAB in the United States" and suggested that the White Oak RAB be nominated for the award. Mr. Tino provided three handouts for the attendees: 1) an updated Site Status Graph, 2) a Record of Decision (ROD) review checklist, and 3) Table 4-2 from the recent Base Realignment and Closure (BRAC) Clean-up Plan.

Mr. Tino requested that everyone attend the July meeting and that it be a picnic to celebrate the near completion of the effort at NSWC-WO. Mr. Tino was hoping for awards in the form of certificates for all current and past RAB members. He wants to hold the picnic at the White Oak site because a picnic grove is located there. The team discussed dates for the picnic; not every RAB member is available for either of the suggested dates, July 13 or July 20, 2004. After some discussion, the team agreed that although not everyone will be able to attend, the RAB will have the picnic on a date where the majority of the members can attend. The RAB agreed to poll the members to find the best date for the majority of people. They team proposed the following dates for the picnic: July 14, 15, and 20. Kate agreed to send a note to the RAB about the picnic and requested that everyone respond so a headcount can be taken and a date selected.

Mr. Tino asked if people still wanted him to do an update; the members requested that he continue with the RAB updates.

Mr. Tino mentioned that the RAB will be operating until the end of the year because the clean-up will be complete by then and monitoring will be the only activity. A show of hands indicated that people were interested in participating in the new team that will be formed at that time. Mr. Tino suggested that the RAB be dissolved at the January 2005 meeting and a new team be formed composed of representatives from the BRAC Clean-up Team (BCT), U.S. Army, Food and Drug Administration (FDA), General Services Administration (GSA). Mr. Meyer requested that Prince George's County be represented on the new team.

2. **RAB Minutes Discussion/Approval** (John Tino)

Mr. Tino asked for comments on the recent RAB meeting minutes and updates. No changes were identified for the January 2004 RAB meeting minutes and the minutes were approved as written. Final January 2004 RAB meeting minutes will be distributed at the same time as the draft April RAB meeting minutes.

3.0 **BRAC Cleanup Team (BCT) Update** (Bruce Beach, USEPA)

Mr. Beach provided information on the following NSWC-WO activities:

<u>Site 11 Groundwater</u>

- Record of Decision (ROD) signed in April 2004!
- Remedial action (RA) design is ongoing.
  - Additional field data being collected.

- RA to be implemented in 2004.
- Monitoring plans being developed.

Mr. Beach stated that the BCT plans to make a formal presentation of the Site 11 ROD to LABQUEST. Referring to the ROD Checklist handed out earlier, Mr. Beach stated that the BCT plans to present the Site 3 and Site 49 Proposed Plans at a July 2004 meeting.

Area of Concern (AOC) 2
- Revised screening report being reviewed

Solid Waste Management Unit (SWMU) 87 – Building 611 Storage Area
- RCRA Facility Investigation/Corrective Measure Study (RFI/CMS) being reviewed. Groundwater contamination was found at this SWMU. However, the Navy cannot complete the remediation at the site this year. The Navy is collecting data at this time and will continue the investigation.

Sanitary Sewer Investigation
- Final report being reviewed.

Site 49
- Draft Final report being reviewed by BCT.
- Feasibility Study being reviewed.
  - Remedial Action options being evaluated.
  - Public meeting scheduled – July 2004

Site 3 / Westfarm Branch
- Proposed Plan being developed.
  - Public meeting scheduled July 2004.

Sites 10 and 14
- Removal completed, verification sampling data being evaluated.

Operable Unit (OU) 2 (Sites 1 & 2)
- Long-term monitoring ongoing.
- Land Use Control Remedial Design being developed.

OU 3 – Groundwater at Sites 1 & 2
- ROD being reviewed by EPA/Navy legal.

OU 1 / Site 9
- ROD being reviewed by EPA/Navy legal.
  - RA design ongoing – implementation 2004
- Pilot Study underway to evaluate in-situ treatment of explosives contaminated groundwater.

Sites 4 and 7
- ROD being reviewed by EPA/Navy legal.

- RA design ongoing – implementation 2004

Sites 5 and 13
- ROD being reviewed by EPA/Navy legal
- RA design ongoing - implementation 2004

Site 48
- Removal action completed at Site 48.
  - No Further Action Planned.

Ordnance Shapes
- All shapes removed, demilitarized.
  - Twenty-five fuzes remain

Mr. Scott Nesbit reviewed Table 4-2 and reconciled it with the site status graph provided by Mr. Tino. There are 105 sites designated as No Further Action, where cleanup action is complete or not required. Six sites are undergoing screening; three are undergoing Remedial Investigation and three are evaluating corrective measures. There are two sites where remediation is complete and long-term monitoring is underway, and there are ten sites where remediation is in progress.

4.0 Westfarm Branch Ecological Risk Assessment (Aaron Bernhardt, TtNUS)

Mr. Bernhardt reviewed the 2003 ecological risk assessment performed within Westfarm Branch as part of the investigation of the adjacent Site 3.

Background on Site 3
- Pistol Range Landfill (1940s to 1970s)
- Investigations (beginning 1984)
- Removal Action (2000)
  - Contaminants found in sediment in Westfarm Branch
  - Potential risk to ecological receptors

Objectives
- Determine current levels of chemicals in Westfarm Branch
- Address uncertainties in previous risk evaluations for Westfarm Branch
- Verify whether polychlorinated biphenyls (PCBs), mercury, and silver in sediment in Westfarm Branch are accumulating in fish tissue and presenting unacceptable risks to fish and piscivorous wildlife (or wildlife that eat fish)
- Calculate site-specific sediment-based Preliminary Remediation Goals (PRGs)

Background - Eco Risk Assessment
- Basewide Screening Level ERA (1999)
  - Many contaminants exceeded screening levels
  - Screening levels are extremely conservative
- Basewide ERA (2001)
  - Developed basewide risk-based levels for ecological receptors

        - Chemical levels in Westfarm Branch were within acceptable risk levels (based on data collected prior to risk assessment)
- Addendum – Risk Evaluation for Post Removal Conditions (2002), initiated to evaluate sediment conditions in Westfarm Branch after the removal action at Site 3
    - Based on additional sampling completed in 2001 and 2002
        - PCBs and mercury elevated (compared to basewide ecological risk based levels)
        - Silver was elevated (compared to literature values)

Site Description

Westfarm Branch

- Perennial stream which begins at the Perconte Property and discharges to Paint Branch south of the White Oak Facility
- Sediment consists primarily of sand and gravel, with some cobbles and little silt; several of the stream banks are eroding into the stream
- Water levels are typically less than 12 inches deep except for pools which may be several feet deep

Paint Branch

- Perennial stream which originates approximately 5 miles north of White Oak
- Sediment consists primarily of sand and gravel, with some cobbles and little silt
- Paint Branch is wider and deeper than Westfarm Branch

Mr. Bernhardt provided pictures of the streams.

Eco Risk Questions

- Are PCBs, mercury, and silver in the sediment impacting fish in Westfarm Branch?
- Are PCBs, mercury, and silver in fish from Westfarm Branch impacting small birds and mammals ingesting those fish (piscivorous birds and mammals)?
- Are levels of mercury and silver in fish tissue elevated?

2003 Sampling Event

Sediment

- Composite samples were collected from seven areas
- Collected to better characterize the fish exposure area because fish swim up and down the creek

Fish

- Fish samples were collected from four areas in Westfarm Branch and one area in Paint Branch (reference location)
- Electro shocking was used to collect the fish
- All species were caught and their numbers recorded in order to estimate fish species abundance
- Blacknose dace were targeted for chemical analysis

Blacknose Dace

- Most abundant during previous investigations
- Most likely to be available at all stations

- Short life spans (approximately 2 to 3 years)
- Small home ranges
- Feed on aquatic invertebrates and would be exposed to sediment
  - either directly by incidental ingestion
  - indirectly through the food they consume

Mr. Bernhardt presented figures showing where the 28 samples were collected along Westfarm Branch. He explained that reference samples were collected from Paint Branch.

Results

Sediment Concentrations

- Aroclors-1254 and -1260 were the only PCBs detected
  - Not detected in sample adjacent to Site 3; detected at all downgradient locations
- Mercury was detected in all samples
- Silver was not detected in any sample

Fish – Tissue Residue

- Aroclor-1254 and -1260 were the only PCBs detected; detected in all samples (including reference)
  - All detected total concentrations exceed reference sample
- Mercury detected in all samples
- Silver was not detected in any sample

PCB concentrations in the sediment north and south of Dahlgren road are significantly lower than historical samples (2000 and 2002)

Mercury concentrations in sediment south of Dahlgren road are decreasing at a slower rate than those north of Dahlgren road; although mercury concentrations overall are lower than historical samples (2001 and 2002)

Risks to Piscivorous Wildlife

Food chain modeling conducted

- Current sediment and fish data
- Evaluate risks to piscivorous mammals (i.e., mink) and birds (i.e., kingfisher)

Calculated Ecological Effects Quotients (EEQ) for four scenarios

- EEQ = Calculated Dose/Toxicity Value

Incorporated Area Use Factors (AUFs)

- Percentage of food obtained from the site
- 10 percent AUF was used for final PRGs

Risks were calculated using No Observed Adverse Affect Levels (NOAELs) and Lowest Observed Adverse Affect Levels (LOAELs)

- NOAEL - No Observable Adverse Effects Level

- LOAEL - Lowest Observable Adverse Effects Level

AUFs were used because inadequate numbers of fish are present in Westfarm Branch to support 100% of the piscivorous species' diet

- Most fish are small and weigh only a few grams; large numbers of these fish would need to be consumed on a daily basis

Mr. Bernhardt explained that the NOAEL and LOAEL values are literature values. He further explained that he did not collect any trout as samples.

Risks to Fish - Population Survey
Used fish data to calculate various metrics

- Species richness and composition
- Indicator Species
- Trophic Composition (i.e., feeding habits of different organisms)

Compared fish survey results from Westfarm Branch and Paint Branch to Maryland Coastal Plain reference stream data

Scored each metric based on comparison to reference stream data

Stream segment upstream of Dahlgren Road has very poor biological conditions based on the fish biosurvey results

The other stream reaches, including Paint Branch, have poor to fair biological conditions based on the fish biosurvey results

Preliminary Remediation Goals
Average allowable sediment contaminant concentration over the entire length of the exposure area (i.e., the length of Westfarm Branch on NSWC White Oak property)

Calculated for piscivorous wildlife and fish for comparison to levels of chemicals in sediment

Summary/Conclusions
PCBs and mercury were detected in the sediment and fish samples; silver was not detected in any sample

Risks to piscivorous wildlife are low

Sediment concentrations did not exceed final PRGs for piscivorous wildlife

Risks to fish are low from chemicals in their tissue

Sediment concentrations did not exceed PRGs for risks to fish

Stream Biosurvey

- Stream segment upstream of Dahlgren Road has very poor biological conditions

- The other stream reaches, including Paint Branch, have poor to fair biological conditions
  - Cannot determine if contaminants are the cause of poor to fair conditions; Data suggests regional, landscape-scale stressors affecting the fish assemblages in Westfarm Branch and Paint Branch

Mr. Beach explained that some fish cannot get to some places on the stream because of physical barriers (culverts).

Mr. Bernhardt was asked if the study compared the fish or sediment concentrations to other streams in area. He explained that the fish were compared to those found in Paint Branch. Mr. Bernhardt explained that fairly low concentrations of contaminants were found in the sediments. A concentration of 830 ppb for total PCBs was the highest concentrations found in sediments.

Mr. Bernhardt was asked if Site 3 is still being monitored. Mr. Nesbit explained that no action is proposed for Site 3. The groundwater contamination upstream of the site is being addressed with the action planned at Site 13. The PCBs present in the stream sediment are believed to be the result of a release during Site 3 excavation activities.

5.0 RAB/Public Discussion (All)

Mr. Tino stated that the Site 11 ROD has been signed. This ROD is associated with the location where the FDA building is being built. Mr. Tino asked if there were any questions from the attendees.

In response to Ms. Bretz' question, Dr. Crannell stated that natural attenuation is continuing based on the recent groundwater results. Ms. Bretz asked if the Site 11 construction will be quiet. Mr. Walter Legg explained that with all the activity at NSWC-WO, he does not expect that the effort will be noticeable. Ms. Bretz asked if Mr. Legg would keep the RAB informed about the Irby litigation.

Mr. Nesbit reminded the RAB members that NSWC-WO documents and the RAB minutes are available:

- Online at: http://lantops-ir.org/whiteoak/security/login.asp
- Prince Georges County Library (Admin Record CDs)
- White Oak Public Library: 11701 New Hampshire Avenue
- EFACHES: Washington Navy Yard

He also provided BRAC Clean-up Team Contacts to the RAB members in case there are any questions in the next several months:

Bruce Beach, EPA: (215) 814-3364; beach.bruce@epa.gov
Andy Zarins, MDE: (410) 537-3419; azarins@mde.state.md.us
Walter Legg, EFACHES: (202) 685-0061; walter.legg@navy.mil

6.0 **Closing and Wrap-Up** (John Tino)

The meeting was adjourned at 9:00 p.m.

NEXT RAB Meeting: July 13 or 20, 2004, 7:00 p.m.

Meeting Location: Riderwood Village, Calverton, MD or NSWC White Oak

Future RAB Meetings: October 12, 2004