N62604.AR.001942
NCBC GULFPORT
5090.3a

RESTORATION ADVISORY BOARD MEETING MINUTES 13 JULY 2014 NCBC GULFPORT MS

7/13/2014

NAVAL CONSTRUCTION BATTALION CENTER GULFPORT MS

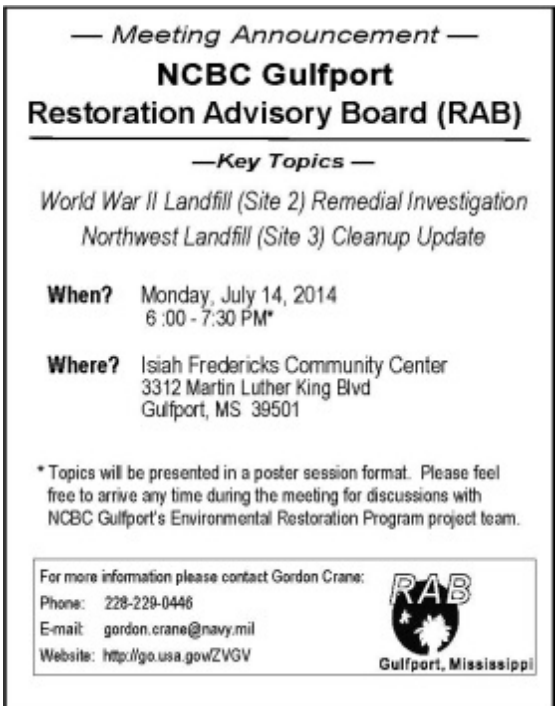
Restoration Advisory Board Meeting
&
Public Availability Session

July 14, 2014

Isiah Fredericks Community Center
3312 Martin Luther King Blvd
Gulfport, MS 39501

Meeting Outreach and Attendance

A meeting announcement (shown to the right) was placed in the Sun Herald.



— Meeting Announcement —

NCBC Gulfport
Restoration Advisory Board (RAB)

—Key Topics —

World War II Landfill (Site 2) Remedial Investigation
Northwest Landfill (Site 3) Cleanup Update

When? Monday, July 14, 2014
6 :00 - 7:30 PM*

Where? Isiah Fredericks Community Center
3312 Martin Luther King Blvd
Gulfport, MS 39501

* Topics will be presented in a poster session format. Please feel free to arrive any time during the meeting for discussions with NCBC Gulfport's Environmental Restoration Program project team.

For more information please contact Gordon Crane:
Phone: 228-229-0446
E-mail: gordon.crane@navy.mil
Website: http://go.usa.gov/ZVGV

RAB
Gulfport, Mississippi

NCBC Gulfport RAB News

July 2014

Upcoming Restoration Advisory Board Meeting

Northwest Landfill Cover Creates a New Soccer Field

Haul Road Removed North of NCBC Gulfport

FOR MORE INFORMATION

A newsletter and flyer were mailed to the interested parties on the RAB mailing list.

- Meeting Announcement –

Restoration Advisory Board (RAB)
NCBC Gulfport

Topics

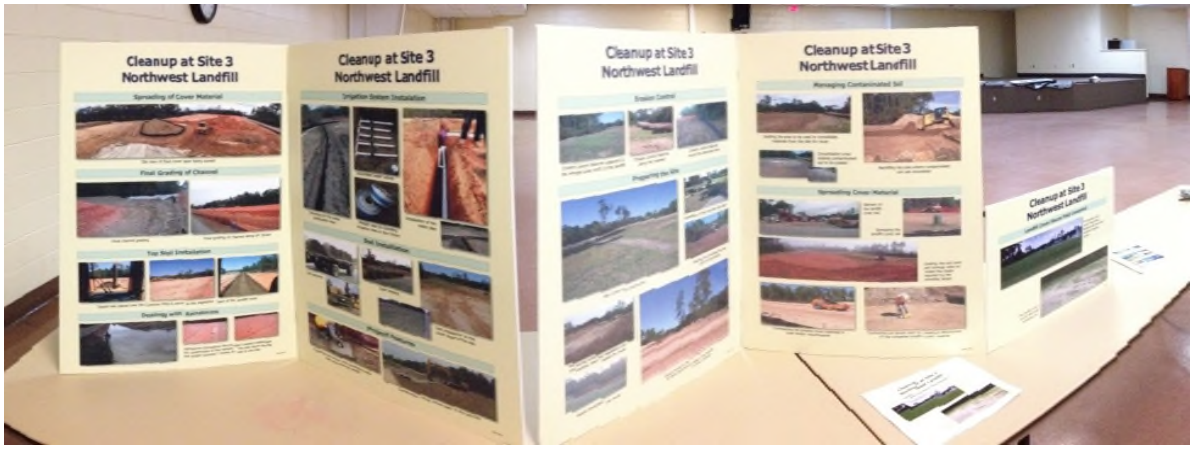
World War II Landfill (Site 2) Remedial Investigation
Northwest Landfill (Site 3) Cleanup Update
Environmental Restoration Program Update
History of Dioxin at the Seabee Center

Where: Isiah Fredericks Community Center
3312 Martin Luther King Blvd
Gulfport, MS 39501

When: Monday, July 14, 2014
6:00 – 7:30 PM

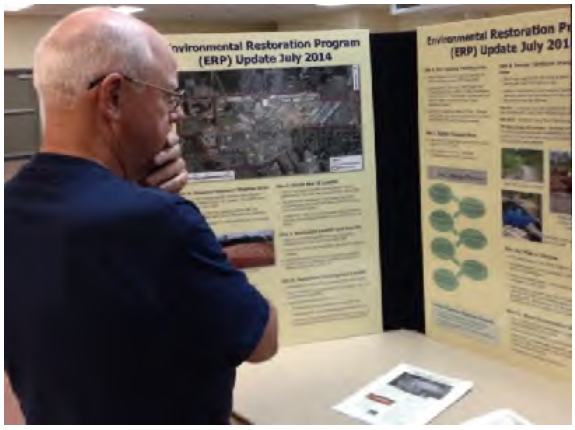
Meeting Format and Content

The July 2014 RAB meeting was presented in a poster session format to provide an opportunity for community members to engage in an informal dialogue with the project team.



Seventeen presentation boards were on display at the RAB Meeting. In addition, fact sheets and handouts were available for further information. The five topics presented included:

- Remedial Investigation at the World War II Landfill (Site 2)
- Northwest Landfill (Site 3) Remedial Action Update
- The Chronology of Herbicide Orange at NCBC Gulfport.
- The Environmental Restoration Program Update
- Polynuclear Aromatic Hydrocarbons (PAHs)



Meeting Attendees

RAB Members:
David Marshall (Alternate Community Co-Chair)
Gordon Crane (NCBC Gulfport Representative)
Joyce Shaw
Philip Shaw
Bob Fisher (Naval Facilities Engineering Command)

Community Members:
Glenn Cobb

NCBC Gulfport Representatives:
LCD Brian Nottingham (Public Works Officer)
Lisa Noble (Environmental Manager)

Technical Support:
Greg Roof (Tetra Tech Project Manager)
William Olson (Tetra Tech Lead Geologist)
Nancy Rouse (Tetra Tech Community Relations Specialist)
Paul Jobmann (Resolution Consultants)
Dave Felter (Resolution Consultants)
Jon Overholtzer (CH2 M HILL)

Key Concerns Expressed by Community Members

Q: Is Herbicide Orange (HO) still being stored on the Seabee base?

A: No, the HO was removed in 1977. The dioxin we have been studying and cleaning up came from spills and other releases from the drums of HO while they were stored on the Seabee base prior to being removed. Most of the sediment that was impacted by the dioxin was incinerated at the site in the late 1980's. Some of the dioxin-contaminated soil washed off of the site before the problem was identified. We believe that we removed most of the dioxin contaminated soil that left the base during the cleanup north of the base in 2006.

Q: Have you ever tested Turkey Creek?

A: Yes, approximately 15 sediment samples were collected from Turkey Creek between Canal Road and Gulfport Lake. It was observed that, as distance decreased from NCBC Gulfport, less of the form of dioxin associated with Herbicide Orange was found. We did not find levels of dioxins that would adversely impact human health or the environment.

Q: Was dioxin testing conducted on base?

A: Yes, the base has been tested. Dioxin is not a problem in the groundwater or surface water on base. However, we are still carefully monitoring and managing sediment in the surface water bodies located on base as dioxin is still a potential issue there. We will continue to monitor this indefinitely. The Navy will not walk away from this problem.

Note: All questions and responses are not intended to be verbatim. Instead, the are the best summary of key concerns and responses expressed at the meeting.

Key Concerns Expressed by Community Members (continued)

Q: Have you ever tested the fish? What about catfish?

A: Yes, we did test fish tissue. We did not find levels of dioxin in the fish that would indicate that they were unsafe to eat. We specifically tested catfish, as well as bass, and found to be safe to eat. The only aquatic animal found to contain an unsafe level of dioxin was an eel.

Q: Have you sampled the fish on base?

A: Yes, fish were sampled from Canal Road and from a ditch near Site 7.

Cat fish are sometimes caught on base. However, the base has a "catch and release" rule.

Q: What is happening on Site 8?

A: Most of Site 8 was covered with a Portland cement cap in 2006. We covered 3 more acres in 2012 and are studying the benefits of covering the remainder of the site to address changes in operational requirements.

Note: All questions and responses are not intended to be verbatim. Instead, the are the best summary of key concerns and responses expressed at the meeting.

World War II Landfill - Site 2
Background and Description

Site 2 is a former 11- acre landfill located to the north in the western section of NCBC Gulfport.

A shallow pond is located on the eastern side of Site 2.

Site 2 is mainly a grass covered area in the western portion of NCBC Gulfport.

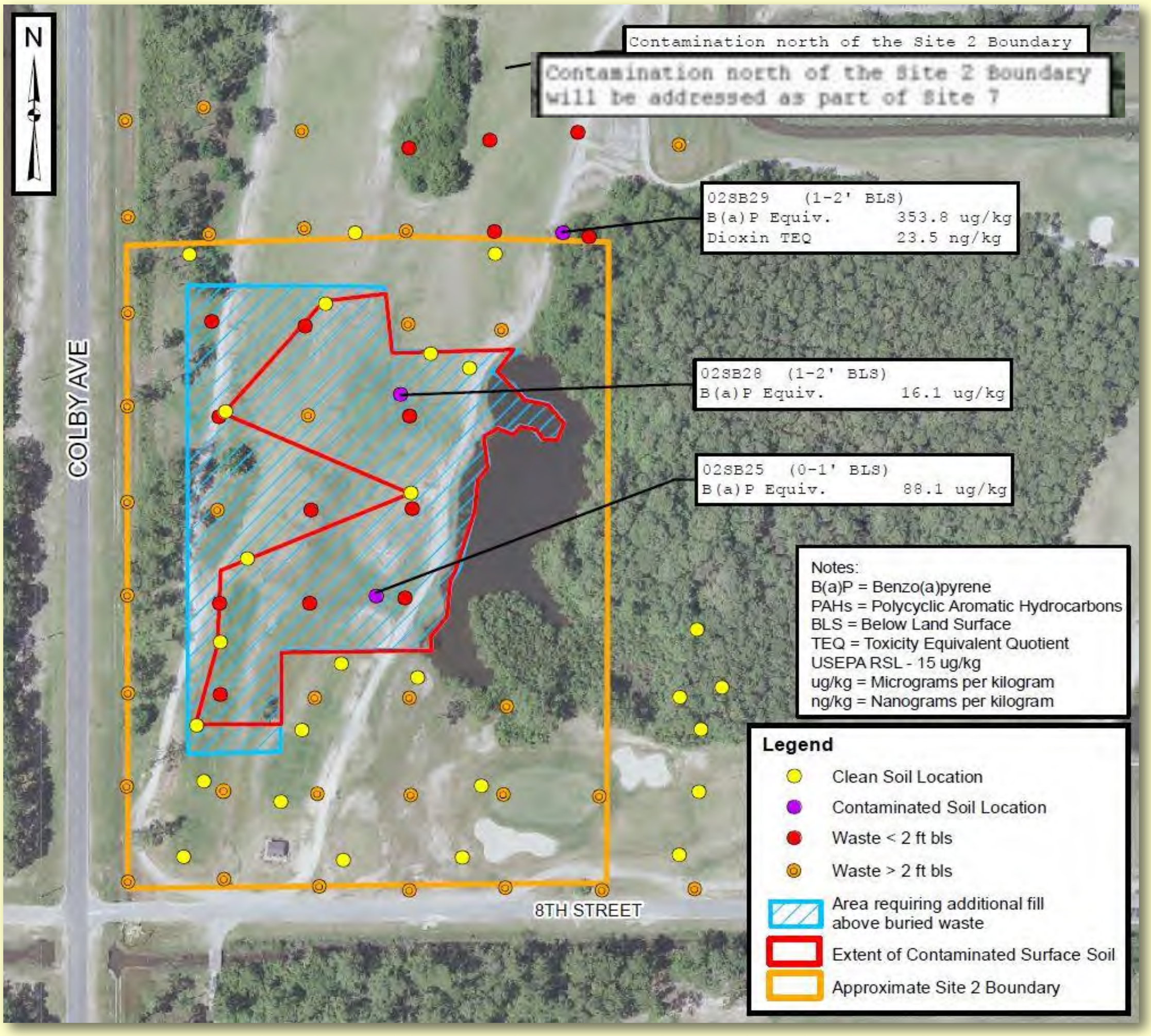
Site 2 History

- The World War II landfill operated from 1942-1948.
- Wastes, mainly from the supply department and public work shops, were moved to the site, burned, placed in trenches, and buried.
- Types of waste included:
  - used waste fuel
  - oil
  - solvents
  - paint
  - paint thinners
- The area was covered with additional soil when disposal activities ceased in 1948 and again when the golf course was constructed in the mid-1990's.
- The site has been most recently used as a military training area.

The Conceptual Site Model illustrates our current understanding of site conditions.

July 2014

World War II Landfill - Site 2
Background and Description



Site 2 boundary and the approximate extent of contaminated surface soil.

Characterizing Site 2
Landfill Size and Soil Cover Thickness

Instruments such as magnetometers were used to characterize the site.

- Magnetometers and similar instruments were used to determine the area where waste had been placed in the landfill.

  – The extent of disposal area was identified –

- Landfill gas was monitored to test for the presence of methane and hydrogen sulfide.

  – Landfill gases were not found –

- Cores were taken to measure the depth of the current soil cover.

  – Results are shown in the figure above –

Characterizing Site 2
Identifying Contaminants of Concern

- Surface soil, subsurface soil, sediment, surface soil, and ground water were sampled and analyzed at the site.
- Human Health and Ecological Risk Assessments were completed to evaluate contaminants found.
- The Human Health Risk Assessment identified **polycyclic aromatic hydrocarbons** (PAHs) as a potential human health risk in surface soil, subsurface soil, and groundwater.
- **Arsenic** and **iron** were also found to be a potential human health risk in groundwater beneath the site.
- No significant ecological impacts were found.
- Dioxin was found in one sample (located on the north side of the site near Site 7). This finding will be addressed along with the remedy for Site 7.

Cleanup at Site 3
Northwest Landfill

Landfill Cover/Soccer Field Completed

The landfill cover/ soccer field being watered with the newly installed irrigation system.

Turf being placed on the landfill cover.

Off-Site Haul Road Removal

The Haul Road

- The Haul road was constructed in 2006 to provide access for the off-base cleanup of dioxin-contaminated soil and sediment.
- It was constructed of 15-foot long timbers, gravel, and soil.

The project was located north of 28th Street and East of Canal Road in Gulfport, Mississippi.

North end of haul road before removal.

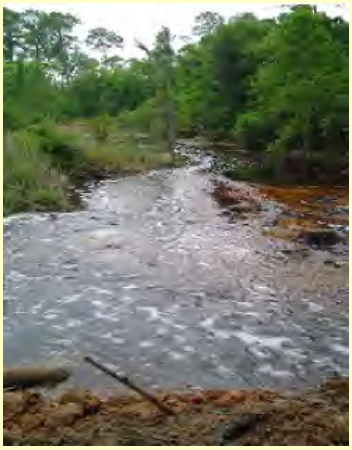
Removal of soil and logs.

Logs piled for removal.

It was necessary to construct a new earth pad to aid in the deconstruction of the haul road.

Logs were cut for transport to a landfill.

The roadbed grassed, mulched, and flooded..



Logs were cut to length for transport to a landfill.

The area after removal of the road.

July 2013

Environmental Restoration Program (ERP) Update July 2014

Site 1: Disaster Recovery Disposal Area

- Site 1 is an inactive landfill where a mock disaster recovery training area was located. The landfill was used from 1942-1948.
- The Proposed Plan for cleaning up the site was presented at the April 2014 RAB and Public Meeting.
- A Decision Document for the landfill cover is currently being prepared.

Site 3 During Landfill Cover Construction

Site 2: World War II Landfill

- Site 2 is an inactive landfill where general refuse generated at the base was disposed from 1942-1948.
- The Remedial Investigation (RI) Report has been completed and the results are being presented at the July 2014 RAB meeting.
- A Feasibility Study (FS) and Proposed Plan are being finalized and will be presented to the public in the near future.

Site 3: Northwest Landfill and Burn Pit

- Site 3 is an inactive landfill that was the primary disposal area for the base from 1948-1968.
- A burn pit on site may have been used for fire-fighting training.
- A Remedial Action is nearing completion to address buried waste and polycyclic aromatic hydrocarbons (PAHs) found in the surface soil.

Site 4: Golf Course Landfill

- Site 4 operated as a landfill from 1966-1972.
- A landfill cap was installed in 2011 to prevent contact with buried waste.
- Groundwater is being monitored to ensure that the chlorinated solvents in the groundwater are breaking down as anticipated.

Site 4 during landfill cover construction

Site 5, Equipment Training Area Landfill

- The landfill located at Site 5 operated from 1972-1976.
- The remediation work (construction of a landfill cap) was completed in July 2009.
- Long Term Monitoring continues:
  - The landfill is being monitored for methane gas.
  - Completed two annual sampling groundwater events.
  - All sample results show that the remedy continues to be protective of human health and the environment.

Environmental Restoration Program (ERP) Update July 2014

Site 6, Fire Fighting Training Area

- Site 6 contained two fire-fighting training pits which operated between 1966 and 1975.
- Investigations in the early 1990's found free "floating" petroleum product in the groundwater beneath the site. Groundwater was treated from 1996 to 2006 to remove the bulk of the petroleum product.
- Long-term monitoring began in 2009. Sample results show that remaining product at the site is breaking down though natural processes.

Site 7, Rubble Disposal Area

- This 3-acre site reportedly received construction rubble from 1978-1984.
- Field studies for the Site 7 Remedial Investigations are nearing completion.

The Cleanup Process

Is Contamination Present?
Preliminary Assessment and Site Inspection

How Much and Where?
Onsite and Offsite Delineation Groundwater Monitoring

Is There a Health or Environmental Concern?
Human Health and Ecological Risk Assessments

What Can We Do About It?
Feasibility Study (FS)
Proposed Plan (PP)

How Can You Participate in the Cleanup Decision?
Public Comment Period

How Will We Do It?
Remedial Design (RD)
Remedial Action (RA)

What Will We Do?
Record of Decision (ROD)

Military Munitions Response Program

- A Preliminary Assessment identified 10 sites where small arms were potentially used.
- No further investigation of the sites are planned under the ERP.

Site 8, Former Herbicide Orange Storage Area

- Site 8 was used by the Air Force to store Herbicide Orange during and after the Vietnam War.
- Some of the drums of the herbicide leaked over time, releasing dioxin contamination into the soil and ultimately into the ditches that led off-base.

Site 8A: A concrete cap was constructed in 2006. Sediment and Groundwater Long Term Monitoring is ongoing.

Site 8B/C: Sediment Long Term Monitoring is ongoing.

Off Base Areas of Concern: Remedial activities have been completed and groundwater monitoring is ongoing. Most recently, the haul road that was constructed to support the cleanup action was removed.

Haul road before removal

Timbers from the haul road being cut and readied for transport off site.

Area after removal of the haul road

Site 10, PCBs in Ditches

- PCBs were found in the NCBC Gulfport parade ground ditches.
- Remedial actions were conducted in 1999 to remove the source of PCB contamination.
- The final remedial action, construction of a concrete cover, was completed in May 2010.
- Four rounds of annual Long Term Monitoring have been collected for PCBs and volatile organic compounds in groundwater. Results show that the remedy continues to be protective of human health and the environment.

Site 11, Wood Preservative Disposal Area

- Site 11 was a former wood treating facility located on the west end of Warehouse 215 on base.
- Twenty nine (29) buried drums of coal tar distillate were found.
- Drums were removed and disposed, contaminated soil was removed, and groundwater monitoring was initiated under a quick-response program.
- Groundwater monitoring continues.

WHAT ARE POLYCYCLIC AROMATIC HYDROCARBONS?

Polycyclic Aromatic Hydrocarbons, or PAHs, are a group of chemicals that are formed during the burning of coal, oil, gas, garbage, tobacco or charbroiled meat. PAHs occur naturally or can be man-made.

Properties of PAHs

- Colorless, white, or pale yellow-green solid
- Evaporate quickly into the air when heated
- Attach strongly to soil and other particles
- Break down slowly
- Do not dissolve easily in water
- Do not burn easily

Common PAHs

- Anthracene
- Benzo(a)pyrene
- Chrysene
- Fluorene
- Pyrene

Prepared by Environmental Programs Directorate at the Navy and Marine Corps Public Health Center 620 John Paul Jones Circle, Suite 1100, Portsmouth, VA 23708 (757) 953-0932

DISTRIBUTION OF POLYCYCLIC AROMATIC HYDROCARBONS

How do PAHs get in the Environment?

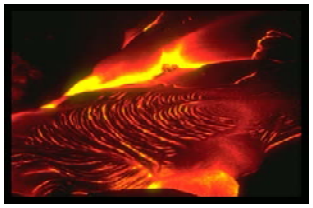
PAHs are released to the environment through natural and man-made processes. Man-made sources contribute far more PAHs to the environment than natural sources.

Man-made Sources

- Burning of wood
- Vehicle exhaust
- Grilled/smoked foods
- Cigarette smoke
- Asphalt roads/Parking lots
- Roofing/coal tar products
- Agricultural burning

Natural Sources

- Forest fires
- Volcanoes



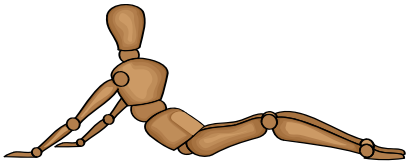
PAHs in the Environment

- PAHs stick tightly to soil particles.
- Some PAHs evaporate into the air from soil or surface waters.
- PAHs in air settle to the ground where they are deposited on soil, plants, or in lakes and streams.
- PAHs stay very close to the surface of the ground or move to lakes and streams by a process called erosion.
- PAHs that enter lakes or streams settle to the bottom and are buried in sediments.

Prepared by Environmental Programs Directorate at the Navy and Marine Corps Public Health Center 620 John Paul Jones Circle, Suite 1100, Portsmouth, VA 23708 (757) 953-0932

EFFECTS OF PAHs

PAHs IN THE BODY



- Breathing ambient air
- Cigarette smoke
- Eating food containing PAHs or grilled meats
- Drinking water or milk containing PAHs
- Breathing air at work sites

EFFECTS ON LABORATORY ANIMALS

- Tumors occur in some animals exposed for long periods of time.
- PAHs have been shown to have an effect on the immune system of some animals.
- EPA considers PAHs to be probable human carcinogens (cancer-causing substances).

KNOWN HUMAN EFFECTS

- Individuals breathing or having skin contact with PAHs combined with other chemicals over a long period of time, have developed cancer.
- There are no known studies to indicate that PAHs alone can cause cancer in people.
- There are no other known health effects of PAHs.

Prepared by Environmental Programs Directorate at the Navy and Marine Corps Public Health Center 620 John Paul Jones Circle, Suite 1100, Portsmouth, VA 23708 (757) 953-0932