

N62604.AR.001934
NCBC GULFPORT
5090.3a

PUBLIC NOTICE RESTORATION ADVISORY BOARD MEETING FLYER 13 JANUARY 2014
NCBC GULFPORT MS
1/13/2014
NAVAL CONSTRUCTION BATTALION CENTER GULFPORT MS

RESTORATION ADVISORY BOARD MEETING: PUBLIC AVAILABILITY SESSION

JANUARY 13, 2014
6:00 – 7:30 PM

ISIAH FREDERICKS COMMUNITY CENTER
3312 MARTIN LUTHER KING BLVD
GULFPORT, MS 39501



Meeting Outreach

— Meeting Announcement —
**NCBC Gulfport
Restoration Advisory Board (RAB)**

— Key Topics —

- ♦ Update on Site 3 (Northwest Landfill) Cleanup
- ♦ Environmental Restoration Program Update

When? Monday, January 13, 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 arrive any time between 6:00 and 7:30 PM to
discuss topics with project scientists and engineers.

For more information please contact Gordon Crane:

Phone: 228-229-0446

E-mail: gordon.crane@navy.mil

Website: <http://go.usa.gov/ZVGV>



Gulfport, Mississippi

A meeting announcement (shown on the left) was placed in the *Sun Herald* on Sunday, January 12, 2014.

- Meeting Announcement -
**Restoration Advisory Board (RAB)
NCBC Gulfport**

- Topics -

- Update on Site 3 (Northwest Landfill) Cleanup
- Environmental Restoration Program Update

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

When: Monday, January 13, 2014
6:00 - 7:30 PM*

* Topics will be presented in a poster session format. Please arrive any time between 6:00 and 7:30 PM to discuss topics with project scientists and engineers.



Flyers (shown on the right) were mailed to the interested parties on the RAB mailing list.

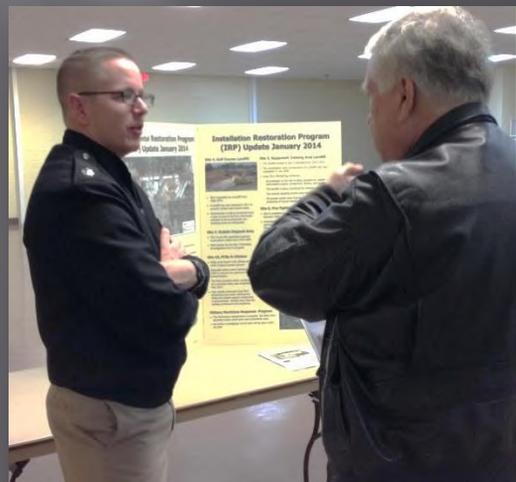
Meeting Format



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

Twelve presentation boards were on display at the RAB Meeting. In addition, fact sheets and handouts were also available for further information. Poster stations included:

- ❑ An updated *Chronology of Herbicide Orange at NCBC Gulfport* (6 posters)
- ❑ *Dioxin Sample Locations and Results* (1 large map)
- ❑ *Site 3 Remedial Action Update* (3 posters)
- ❑ *Environmental Restoration Program Update* (2 posters)



Summary of Discussions

Overview:

Because the community was represented by only the RAB members at this meeting, and because all active RAB members were present, the attendees agreed to end the poster session format 30-minutes early and to instead convene around a table to hold a general discussion. The following topics were discussed:

RAB Meeting Format:

The RAB agreed that the poster session format is effective for a variety of reasons, but mainly because it allows team members to address attendee questions and concerns without focusing the entire meeting in discussions that may not interest the majority of attendees.

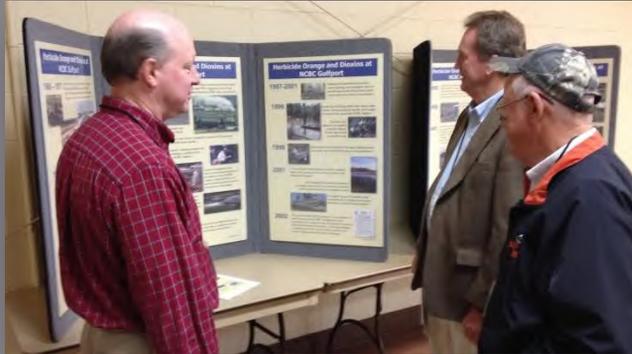
Navy Status Update:

Bob Fisher provided an update on funding status. He also discussed the addition of Site 11, the number of sites still to be completed in the Navy's ERP, and the inclusion of Munitions Program (MRP) and compliance sites in the ERP.

Wetlands Restoration:

A RAB member asked about the status of the wetlands restoration in the remediated areas north of the base. The Navy responded that cypress trees that were planted are now well established but some of the other plants did not do as well. It was also noted that the elevation of culverts along Canal Road were changed which created some challenges for the restoration project. However, in spite of these challenges it is expected that the wetlands will be fully restored over time.

Meeting Attendees



RAB Members:

Philip Shaw

Ron Schmidting

Joyce Shaw

Dave Marshall

Bob Merrill (Mississippi Department of Environmental Quality)

Skip McDaniel (RAB Community Co-Chair)

Bob Fisher (Navy Community Co-Chair)

Gordon Crane (NCBC Gulfport Representative)

Community Members:

No additional community members were present

Technical Support:

Greg Roof (Tetra Tech Project Manager)

William Olson (Tetra Tech Lead Geologist)

Nancy Rouse (Tetra Tech Community Relations Specialist)

Guests:

Brian Nottingham (NCBC Gulfport Public Works Officer)

Paul Jobman (Resolution Consultants)

Dave Felter (Resolution Consultants)

Herbicide Orange and Dioxins at NCBC Gulfport

1968 – 1977

During the Vietnam war, the United States Air Force used a 30-acre area located in the central portion of NCBC Gulfport for the storage and handling of Herbicide Orange in 55-gallon drums. Some of the drums leaked over time.



1970

In April 1970, the United States Environmental Protection Agency banned the use of Herbicide Orange. The Air Force continued to store Herbicide Orange on NCBC Gulfport until 1977.

1977



In June of 1977, the remaining herbicide was removed from the drums and transported to the Port of Gulfport from the base by train to the incinerator ship *Vulcanus* where it was incinerated at sea.



The Air Force completed a post-removal investigation in 1977. Concentrations of dioxins found were lower than 1 part per billion – EPA's action level for soil and sediment at that time.

1984

Studies of Site 8, the Former Herbicide Storage Area and associated ditches, found dioxins in soil and sediment at levels higher than one part per billion.

Herbicide Orange and Dioxins at NCBC Gulfport

1987–1988

The Air Force incinerated the dioxin-contaminated soil at Site 8 to reduce dioxin levels to meet EPA's regulatory level of one part per billion (ppb). Approximately 27,000 cubic yards of soil were incinerated.



Ash generated by the incinerator was stored within a fenced area on Site 8.



1990

Mississippi established a new, stricter standard for dioxin of 4.26 parts per trillion (ppt) based health-based studies.

1994

Routine environmental sampling revealed the need to further investigate possible dioxin contamination on NCBC Gulfport.



1995



Further investigation found dioxin-contaminated sediment in the ditches north of NCBC Gulfport. Nearly 250 tons of dioxin-containing sediment were removed from the ditches.

Sediment recovery traps (SRTs) were installed to slow the flow of sediment from the base through the ditch system. The traps were later tested and shown to be very effective.



1996



A neighborhood survey of over 800 residents was completed as the first step to determine if dioxin contamination could be causing health effects.

Herbicide Orange and Dioxins at NCBC Gulfport

1997-2001



Extensive soil, sediment, and surface water sampling was completed both on and off base to determine where dioxin was present and in what concentrations.

1999



Studies of local fishing habits were done to gain a better understanding of how fish were caught and eaten in the areas near NCBC Gulfport.

Fish were also collected and sampled to test for dioxins. The fish were found to be safe to eat.



1999



Groundwater was sampled on the base. Results showed that dioxin was not leaving the base in the groundwater.

2001

A Human Health Risk Assessment shows a possible health risk if someone were to live on Site 8 or the affected ditch system.

An Ecological Risk showed that potential ecological impacts due to the presence of dioxins would be eliminated by the anticipated remedy.



An engineering and a Feasibility Study were performed to begin the process of identifying a suitable cleanup approach.

2002

The recommended cleanup approach was presented at a public meeting in April 2002. Feedback from the community was received during a 60-day public comment period that followed the meeting. Community feedback included requests for a public health assessment and further sampling north and south of the base.

NAVAL CONSTRUCTION BATTALION CENTER
Gulfport, Mississippi
Installation Restoration Program

INFORMATION SHEET

Invitation to Comment on the Proposed Cleanup at the Former Herbicide Orange (Agent Orange) Storage Areas and Drainage Ditches at the NCBC Base

You have the chance to comment on the Proposed Plan to conduct environmental cleanup at the Former Herbicide Orange Storage Area (Site 8) and associated drainage ditches at the NCBC in a public meeting on April 2, 2002. The Navy and Air Force want to hear your views about the plan to remediate areas contaminated with dioxins from Herbicide Orange stored at the NCBC from 1968 to 1972. In cooperation with the Mississippi Department of Environmental Quality and the United States Environmental Protection Agency, we have carefully studied the contaminated areas and now believe that the following actions are the best way to protect your health and the environment.

- Excavate and remove approximately 18,000 cubic yards of contaminated soil, construction debris, and decontamination sediments from surface drainage ditches and diffuse overland. Control surface water flow and sediment migration at the ditch areas while during the excavation.
- Fill the excavated sediments to Area 8A within the Former HQ storage area inside NCBC. Remove the water elevation from the excavated sediments and, if necessary, treat the drained water prior to discharging.
- Block the excavated sediments with soil, soil and construction debris and lay down approximately 10-inch thickness of the pre-treated material over Area 8A. Spread gravel over the laid-down material and mix the gravel into the material blend.
- Compact the gravel materials to achieve a standard density and load bearing capacity. Cap the stabilized material blend with a multi-layer cover system designed in accordance with the American Association of State Highway Transportation Officials Highway 20 specifications.
- Reinstill access and fence land use of the capped areas. Conduct periodic inspections of the cap to maintain its integrity. Continue monitoring, investigations and sediment on the area to determine if any dioxin are leaching.

The cleanup action could cost an estimated \$8.715 million and construction may be completed within two years. Follow-up monitoring could last up to 30 years subject to 5-year periodic reviews.

We encourage you to share any concerns or comments you have about our plan during the public meeting. You will have until May 5, 2002 to provide written comments. At the end of the comment period, the Navy and Air Force in cooperation with the Mississippi Department of Environmental Quality and the U.S. Environmental Protection Agency will review the comments and make a final decision about the site remediation. Your input on the Proposed Plan is an important part of the decision-making process. We want to hear from you and will pay serious attention to what you have to say.

You can learn more about the cleanup of dioxins at NCBC by reviewing the Administrative Record file or by obtaining a copy of the Proposed Plan from the NCBC Public Affairs Office.

NCBC Public Affairs

POST BY TO: US POSTAGE PAID PERMIT 237 GULFPORT, MS

Herbicide Orange and Dioxins at NCBC Gulfport

2008



The Canal Road Dredge Pile cleanup began with building a road to access the piles.



Approximately 6000 tons of contaminated soil was excavated and transported to Site 8B.

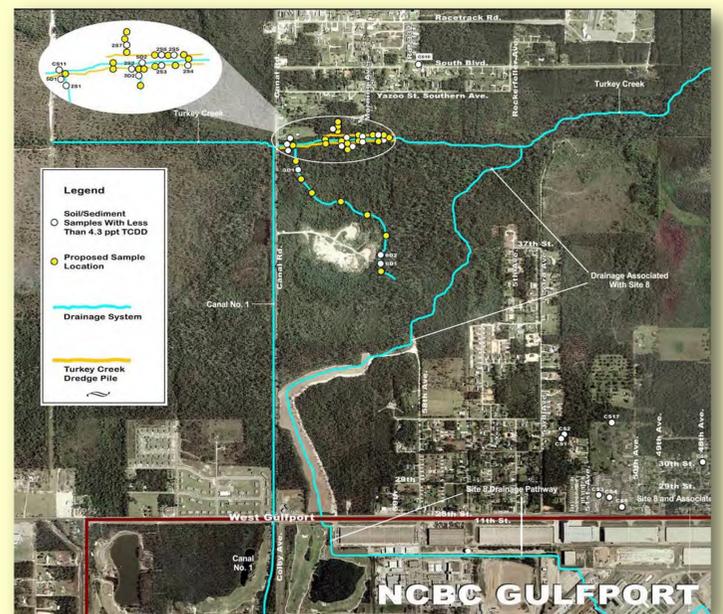


Excavated soil was stabilized by mixing it with Portland cement and spreading it in uniform layers. More than three acres of Site 8B were stabilized.

2009

Results of Off Base Areas of Concern sampling are reported in March 2008. Additional sampling of four of the areas was recommended.

Off Base Area of Concern sampling continued with the collection of a second phase of surface water, sediment, and soil samples. No significant levels of dioxins were found.



Four permanent groundwater wells were installed and sampled off base. No dioxins related to Herbicide Orange were found in the groundwater.

2011



A Five-Year Review of Site 8 was completed. The review found the remedy to be protective of human health and the environment.

2012

Stabilized Canal Road Dredge Pile on Site 8B was covered with a clean concrete cap to create a parking lot for military construction equipment.

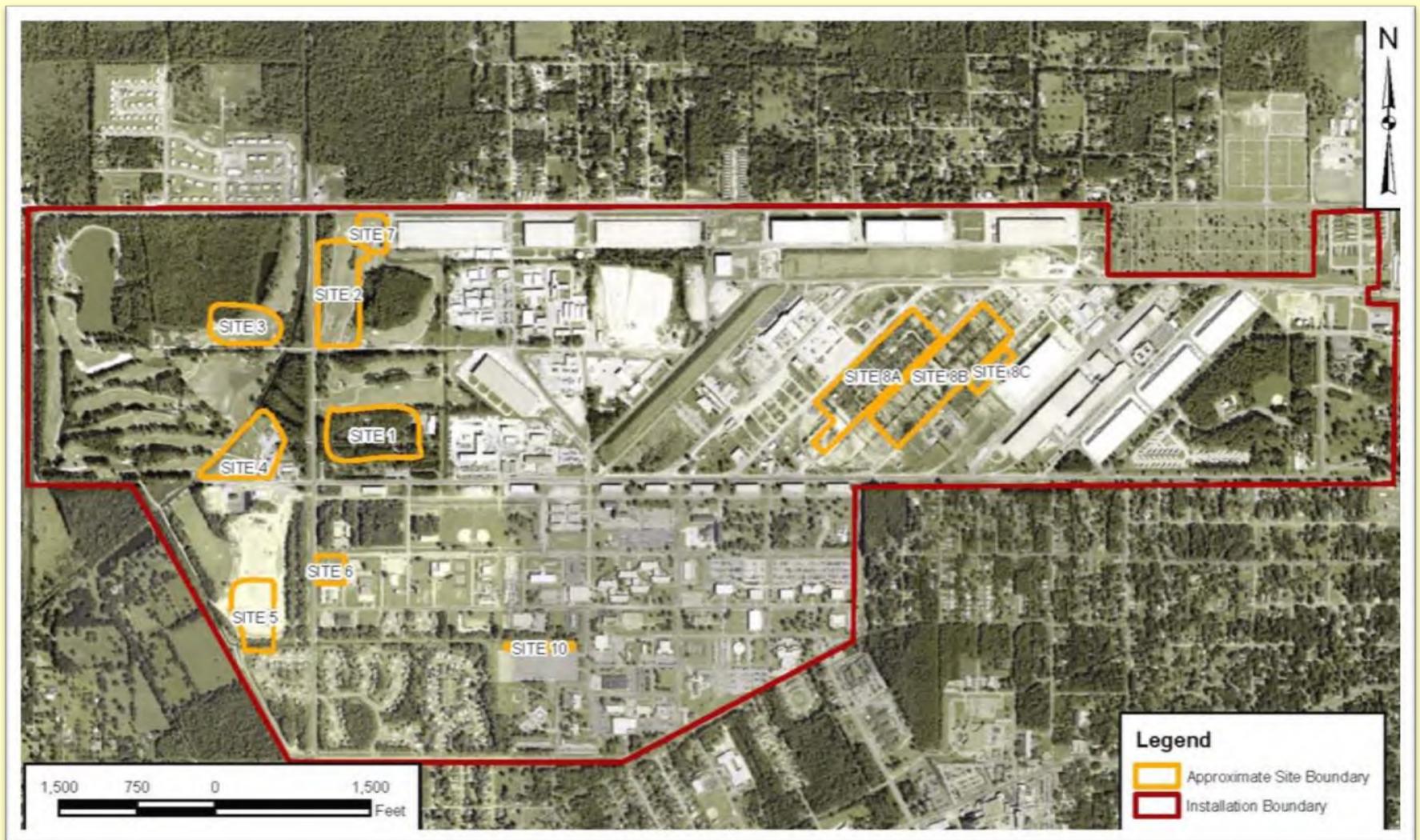


2013



A fence was installed around Sites 8B and 8C to prevent unauthorized use of the site.

Environmental Restoration Program (ERP) Update January 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 Remedial Investigation (RI) and Feasibility Study (FS) have been completed.
- ❖ A Proposed Plan is currently being prepared to address buried waste and Dieldrin (a pesticide) found in the surface soil.

Site 2, World War II Landfill

- ❖ Site 2 is an inactive landfill where general refuse generated at the base was disposed from 1942-1948.
- ❖ A revised Remedial Investigation (RI) is in regulatory review.
- ❖ A Feasibility Study (FS) is being completed to address buried waste and polyaromatic hydrocarbons (PAHs) found in the surface soil.

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 in progress to address buried waste and polyaromatic hydrocarbons (PAHs) found in the surface soil.

The Cleanup Process



Installation Restoration Program (IRP) Update April 2013

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 twice a year to ensure that the chlorinated solvents in the groundwater are breaking down as anticipated.

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 in progress.

Site 10, PCBs in Ditches

- ❖ PCBs were found in the ditches of the NCBC Gulfport parade ground.
- ❖ 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.

Military Munitions Response Program

- ❖ The Preliminary Assessment is complete. Ten sites were identified where small arms were potentially used.
- ❖ No further investigation of the sites will be done under the ERP.

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:
 - Groundwater at the site is being sampled for volatile and semivolatile organic compounds, dioxins, and pesticides.
 - The landfill is being monitored for methane gas.
 - Two annual sampling events have been completed.
 - All sample results show that the remedy continues to be protective of human health and the environment.

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 through natural processes.

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 has been constructed. 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.



Cleanup at Site 3 Northwest Landfill

Erosion Control



Erosion control features adjacent to the wooded area north of the landfill



Erosion control features along the roadway



Erosion control features around the disturbed area

Preparing the Site



Site 3 prior to construction



Demolition of the concrete cart path



Clearing and grubbing the site prior to excavation



Removing existing vegetation and stockpiling clean topsoil for reuse



Topsoil stockpiled for reuse



Topsoil moved to the edge of the landfill to allow placement of cover material

Cleanup at Site 3 Northwest Landfill

Managing Contaminated Soil



Grading the area to be used to consolidate materials from the site for reuse



Backfilling the area where contaminated soil was excavated



Consolidation area holding contaminated soil to be graded



Spreading Cover Material



Delivery of the landfill cover soil



Spreading the landfill cover soil



Grading the soil cover soil (orange color) to create the shape required by the remedial design



Compacting the graded cover material to meet design requirements



Conducting soil density tests to measure effectiveness of the compacted landfill cover material