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RESTORATION ADVISORY BOARD MEETING MINUTES 17 APRIL 2014 NCBC GULFPORT  
MS  
4/17/2014  
NAVAL CONSTRUCTION BATTALION CENTER GULFPORT MS

# RESTORATION ADVISORY BOARD & PUBLIC MEETING NCBC GULFPORT

APRIL 17, 2014  
6:00 – 7:30 PM



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

# Meeting Format



The April 2014 RAB and Public Meeting was presented in a poster session format to provide an opportunity for community members to engage in an informal dialogue with the Environmental Restoration Program project team.

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

- ❑ Disaster Recovery Disposal Area (Site 1) Proposed Plan (3 posters)
- ❑ Chronology of Herbicide Orange at NCBC Gulfport (6 posters)
- ❑ Northwest Landfill (Site 3) Remedial Action Update (4 posters)
- ❑ Environmental Restoration Program Update (2 posters)



A court reporter was present at the meeting to provide a verbatim transcript of the Disaster Rubble Disposal Area (Site 1) Proposed Plan discussion (attached to the end of this summary).

# Meeting Outreach

A Public Notice (shown on right) was placed in the *Sun Herald* on Sunday, April 13, 2013 to announce the RAB and Public Meetings and the beginning of the Public Comment Period for the Proposed Plan for Site 1.

- Meeting Announcement -

## Restoration Advisory Board (RAB) NCBC Gulfport

- Topics -

Proposed Plan for Site 1 - The Disaster Recovery Disposal Area  
Construction Update: Landfill Cover for The Northwest Landfill (Site 3)

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

**When:** Thursday, April 17, 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.



For More Information please contact Gordon Crane:  
(228) 229-0446  
[gordon.crane@navy.mil](mailto:gordon.crane@navy.mil)



A television reporter attended the meeting and aired a story on the WLOX 10 O'Clock News on April 17, 2014.



## NCBC Gulfport Environmental Public Meeting

**Topic:** The Proposed Plan Site 1,  
Disaster Recovery Disposal Area

**Thursday, April 17, 2014**  
6:00-7:30 PM

**Isiah Fredericks Community Center**  
3312 Martin Luther King Boulevard  
Gulfport, Mississippi

The Navy will be discussing their Proposed Plan to address contaminants found in soils and groundwater at Site 1, the Disaster Recovery Disposal Area, at the Naval Construction Battalion Center (NCBC) Gulfport. The plan proposes to maintain the existing 2-foot minimum clean soil cover, excavate a small area of surface soil that is contaminated with dieldrin (a pesticide), clean out and repair ditches and culverts to restore optimal drainage conditions on site, restrict future land use, and monitor groundwater to ensure that contaminants are not leaving the site. The existing soil cover would continue to prevent direct contact with the contaminated water and soils and would therefore be protective of human health and the environment.

A **Public Comment Period** for the this cleanup proposal will begin on April 14, 2014 and end on May 17, 2014. Copies of the Proposed Plan and other associated reports will be available for review during the comment period at a the NCBC Gulfport Information Repository located in the Gulfport Public Library at 1708 25th Avenue, Gulfport, Mississippi, 39501.

For more information, please contact the NCBC Gulfport Installation Restoration Program Manager at (228) 229-0446 or [gordon.crane@navy.mil](mailto:gordon.crane@navy.mil)

Flyers were mailed to the interested parties on the RAB mailing list.



# Key Concerns Expressed by Community Members

## Site 1 Proposed Plan:

**Question:** What happened to all of the materials that were disposed of at Site 1?

**Response:** Site 1 contained a lot of normal household garbage which would slowly rot and degrade, but would typically not create an environmental hazard. During the investigation we did not find any harmful chemicals leaving the site, nor did we find any harmful chemicals within the site at high concentrations. Our goal with the proposed soil cover is to protect people from coming into contact with the landfill contents. We will also continue to take groundwater samples around the site to make sure that no contaminants leave the landfill.

**Question:** Is there a concern about water getting into the waste and causing it to move from the site?

**Response:** Our studies showed us that landfill materials are not leaving the site. However, there are still contaminants within the former landfill, so the cover is being reinforced to prevent the landfill contents from leaving and groundwater samples will track the effectiveness of the cover.

**Question:** So there is still something in the ground?

**Response:** Yes, the waste is contained within the landfill.

## Meeting Format:

**Comment:** I feel that this meeting format [posters instead of a presentation] is designed to limit public input. I prefer the old style of meeting when everyone hears everyone else's concerns and your responses.

**Response:** The Navy is requiring this format for public meetings because we believe that participants are being given a better opportunity for more balanced participation and a personal response to questions and concerns. However, our goal is to provide the best opportunity for communication with the public and we are open to learning more about your concerns.

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

# Meeting Attendees

## **RAB Members:**

Gordon Crane (NCBC Gulfport Representative)

Bob Fisher (Naval Facilities Engineering Command)

David Marshall

Bob Merrill (Mississippi Department of Environmental Quality)

Philip Shaw

## **Community Members:**

Frances Fredericks

## **Navy Representatives:**

Lisa Noble (NCBC Gulfport Environmental Manager)

## **Technical Support:**

Greg Roof (Tetra Tech Project Manager)

William Olson (Tetra Tech Lead Geologist)

Nancy Rouse (Tetra Tech Community Relations Specialist)

## **Other Guests:**

Coray Grace (WLOX-TV)

Gloria Tatum (MDEQ Public Participation Contractor)



# Disaster Recovery Disposal Area (Site 1) Proposed Plan

## NCBC GULFPORT ENVIRONMENTAL RESTORATION PROGRAM

### Summary

This Fact Sheet summarizes the Navy's proposal to address contaminants detected in soil and groundwater at Site 1, the Disaster Recovery Disposal Area, at the Naval Construction Battalion Center (NCBC) Gulfport. The disposal area was used in the mid-1940s to dispose of wastes from activities on the Center. Completed studies show low levels of a pesticide (dieldrin) in the surface soil and tetrachloroethylene (a colorless liquid commonly used for dry cleaning) and metals (iron, manganese, and thallium) in the groundwater.

The Proposed Plan recommends maintenance of a 2-foot minimum clean soil cover, excavation and disposal of the dieldrin-contaminated surface soil, clean out and repair of culverts and ditches to restore drainage conditions, limiting use of the site with land use controls, and long-term sampling and analysis of groundwater to ensure that contaminants are not leaving the site.



Site 1 is an approximately 13.5-acre former landfill located in the western portion of NCBC Gulfport.

### The Disaster Recovery Disposal Area

#### Background

The Site 1 landfill operated from 1942 to 1948. The landfill received wastes from the public works shops and the supply department. The waste included household wastes, used fuel, oil, solvents, paint, and paint thinners. The waste was transported in 55-gallon drums and buried in the unlined trenches. The waste disposal area at Site 1 was covered with soil when disposal activities ceased in 1948. Additional fill has been added over the years to construct parking lots and roads over the surface. Site 1 is roughly 13.5 acres in size and is located in center of the western portion of NCBC Gulfport. The landfill area was recently used as a mock disaster recovery training village and as a training facility.

For more information please contact

Gordon Crane  
(228) 229-0446  
gordon.crane@navy.mil

#### Environmental Studies

The Disaster Recovery Disposal Area was identified as a possible site in 1985 as part of a basewide initial assessment. Follow-on studies in 1987 evidenced that native soil may have been disturbed by excavation and disposal activities, but no significant contamination in the groundwater, sediment, and surface water. Soil samples were collected again in 1997; and contaminants were found in low concentrations (less than risk-based criteria or background). In 1999, a basewide groundwater investigation found low levels of dioxins and pesticides in groundwater; however, all results were less than the acceptable regulatory levels (i.e., Maximum Contaminant Levels) established for groundwater.

In 2008, the Navy completed several studies to further investigate Site 1: Remedial Investigation (RI) fieldwork (including geophysical, soil gas, and landfill gas surveys and soil, groundwater, surface water, and sediment sampling); a study to determine the

impact of contaminants at Site 1 on NCBC Gulfport construction projects; and a soil assessment at foundations of nine buildings formerly located on the site and in the bank of an on-site drainage ditch. The studies found polychlorinated biphenyls on the bank of the ditch that were then excavated and disposed of during a subsequent military construction project completed as part of Hurricane Katrina reconstruction efforts.

In 2012 a Landfill Cover Assessment was completed to evaluate the existing cover thickness and properties, and all of the studies completed between 2008 and 2012 were compiled in an RI Report in 2013. The RI Report identified contaminants in surface soil (dieldrin) and groundwater (tetrachloroethylene, iron, manganese, and thallium) that could pose a potential risk for human health or the environment.

# Evaluation of the Cleanup Alternatives

## The Feasibility Study and Proposed Plan for Site 1

A Feasibility Study (FS) was completed to evaluate possible cleanup remedies for Site 1. Three remedies needed were evaluated in the FS: No Action (Alternative 1), Focused Action (Alternative 2), and Comprehensive Action (Alternative 3) as described below.

### Alternative 1: No Action

A No Action alternative is always used as a baseline for comparison with other alternatives. This option assumes that no changes would be made to the existing conditions at the site.

### Alternative 2: Focused Action



The Containment Action alternative includes the following:

1. Maintaining the current 2-foot soil cover to prevent contact with the landfill contents and migration of subsurface contaminants by erosion.
2. Limited excavation would remove dieldrin-contaminated soils and transport them off site to an approved landfill. Clean backfill material will be brought onto the site and used to fill the excavation.
3. Cleaning out the existing culverts and ditches would improve the drainage to reduce ponding over the buried waste. The material removed from the culverts and ditches would be sampled and managed as necessary based on the sample results.
4. Land use controls would manage future development of the site, prevent further excavation on the site, ensure that the 2-foot soil cover is properly maintained, and prevent the use of groundwater from beneath the site.
5. Long-term monitoring would consist of sampling groundwater from selected wells to detect if contaminants are leaching from the site.

## Alternative 3: Comprehensive Action

The comprehensive action consists of the following components:

1. Landfill “cap” constructed in three layers: topsoil to prevent erosion, a compacted (low-permeability) layer to prevent infiltration of rainwater into the landfill, and a gas-venting layer to manage landfill gas.
2. Landfill gas would be managed by measuring methane concentrations at landfill vents and from probes installed during the construction of the landfill cap.
3. Land use controls as described for Alternative 2.
4. Long-term monitoring as described for Alternative 2.

## The Preferred Remedy

The Navy recommends Alternative 2, Focused Action, as the Preferred Remedy for Site 1. This alternative would be protective of human health and environment and meets all of the established evaluation criteria. More information on the evaluation criteria is available in the Site 1 Proposed Plan.

## The Information Repository

The NCBC Gulfport Information Repository contains the Disaster Recovery Disposal Area (Site 1) Proposed Plan and supporting documents. The Information Repository is located at the following location:

Gulfport Public Library  
1708 25th Avenue  
Gulfport, MS 39501  
Phone: (228) 871-7171

## Public Meeting and Comment Period

An informal Public Meeting will be held to discuss the Proposed Plan for Site 1 with the Navy’s engineers and scientists.:

When: April 17, 2014  
6:00—7:30 PM

Where: Isiah Frederick’s Community Center  
3312 Martin Luther King Jr. Boulevard  
Gulfport, MS 39501

The Site 1 Proposed Plan is available for your review and comments during the Public Comment Period from April 14, 2014, through May 17, 2014. Comments on this proposal may be provided in person at the public meeting or in writing to

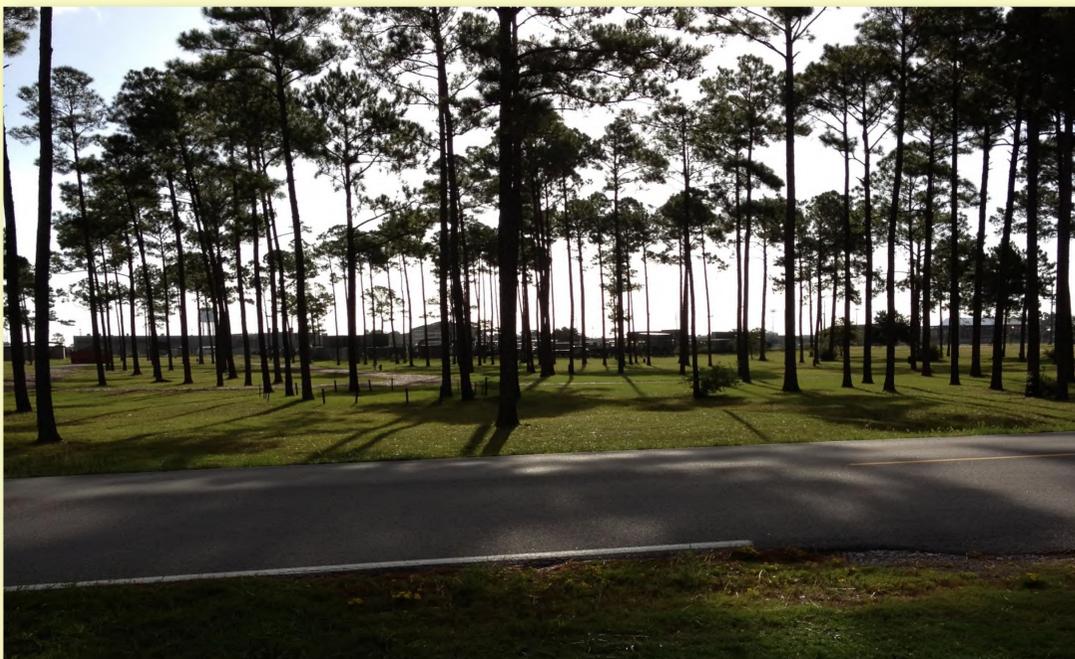
Mr. Gordon Crane  
Installation Restoration Program Manager  
2401 Upper Nixon Avenue  
Gulfport, MS 39501

April 2014

# Disaster Recovery Disposal Area- Site 1 Background and Description



Site 1 is an approximately 13.5 acre former landfill located in the center of the western portion of NCBC Gulfport.



The site is a mainly grass and tree covered area with limited roadways, parking lot, and building improvements.



The original study boundary was based on historical information and provided a starting point for the investigation.

## Site 1 Facts

- The Disaster Recovery Disposal Area operated from 1942-1948.
- This former landfill received wastes from the public work shops and the supply department.
- Wastes included used household garbage, fuel, oil, solvents, paint, and paint thinners.
- Wastes were transported in 55-gallon drums and buried in unlined trenches.
- The waste disposal area was covered with soil when disposal activities ceased in 1948. Additional fill was added over the years to construct parking lots and roads.
- The site has been most recently used as a mock disaster recovery training village and a military training area.



Site 1 has most recently been used as a military training area.

# Disaster Recovery Disposal Area- Site 1 Investigations and Early Actions

## Site 1 Investigations and Early Actions

- The site was identified during the *Initial Assessment Study* in 1985. Additional studies were conducted between 1987 and 1999.
- *Site 1 Remedial Investigation (RI)* field activities were completed in 2008.
- Polychlorinated biphenyls (PCBs) found in the bank of an onsite drainage ditch during the RI investigation were later excavated and disposed of during a construction project completed as part of Hurricane Katrina reconstruction efforts.
- In 2012 a *Landfill Cover Assessment* was completed to evaluate the thickness and properties of the existing cover.

## RI Field Activities



The RI field work included:

- Geophysical, soil gas, and landfill gas surveys
- Sampling of sediment, surface water, soil, and groundwater.
- Assessment of the soil cover depth.
- Evaluation of site drainage.

## Site 1 Drainage



Southwest corner of site showing partially blocked culvert.

## RI Results

- **Dieldrin**, a pesticide, was found in surface soil at concentrations that could pose unacceptable health risks for future residents and construction workers.
- **Tetrachloroethylene (PCE)**, and metals (iron, thallium, and manganese) were found in groundwater at levels that might pose a risk for human health or the environment.
- No contaminants of concern were found in the surface water, sediment, or subsurface soil.
- The depth of the soil cover is adequate across the site.
- The drainage systems needs to be restored.



Flooding in Central Area of Site 1



Rainwater Ponding



Topography of Site 1 showing areas of observed flooding.

# Disaster Recovery Disposal Area– Site 1 Preferred Remedy

## The Feasibility Study and Proposed Plan

A **Feasibility Study** was completed to evaluate three possible cleanup alternatives for Site 1:

1. The **No Action** alternative is always evaluated as a baseline for comparing alternatives.
2. The **Focused Action** alternative includes maintenance of the existing 2-foot minimum clean soil cover, limited soil excavation to remove dieldrin-contaminated soil, cleaning out and repairing culverts and ditches to restore optimal drainage conditions, and establishment and maintenance of land use controls, and long-term sampling of groundwater to detect if contaminants are moving from the site.
3. The **Comprehensive Action** alternative includes all of the actions in the Focused Action plus a three-layered landfill cover consisting of: (1) topsoil, (2) compacted soil, and a landfill gas-venting system.

The Navy's **Proposed Plan** recommends Alternative 2, **Focused Action**, as the Preferred Remedy for Site 1. The Focused Action alternative has been shown to be protective of human health and the environment without the additional costs of implementing the Comprehensive Action alternative.

### Limited Excavation



- Dieldrin-containing soil would be excavated and transported to an approved landfill.
- Clean material would be used to fill the excavation and maintain soil cover.

### Maintain Current Soil Cover



- Maintain the existing 2-foot clean soil cover.
- The soil cover prevents contact with landfill contents and prevents transportation of landfill contents by erosion.

### Restore Drainage System



- Restore original drainage system by repairing drainage swales and culverts to minimize flooding.
- Materials from swales and culverts would be sampled and managed as indicated by the sample results.

### Land Use Controls & Long Term Monitoring



- Site controls would include restricting development and groundwater use.
- Periodic inspections and annual monitoring would be required to check the integrity of the soil cover.
- Periodic monitoring would ensure that contaminants were not leaching into the groundwater.

# 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

# Cleanup at Site 3 Northwest Landfill

## Spreading of Cover Material



Site view of final cover layer being spread

## Final Grading of Channel



Final channel grading



Final grading of channel along 8<sup>th</sup> Street

## Top Soil Installation



Topsoil was placed over the Common Fill to serve as the vegetative layer of the landfill cover.

## Dealing with Rainstorms



Rainstorms throughout the project created challenges for construction of the remedy. The last storm during the project dumped 7 inches of rain in one day.

# Cleanup at Site 3 Northwest Landfill

## Irrigation System Installation



Trenching for the water distribution lines



Automated water valves



Metallic tape for locating irrigation lines in the future



Installation of the water pipe



## Sod Installation



Sod delivery



Sod staging



Sod installation on the south slope of the site



## Project Features

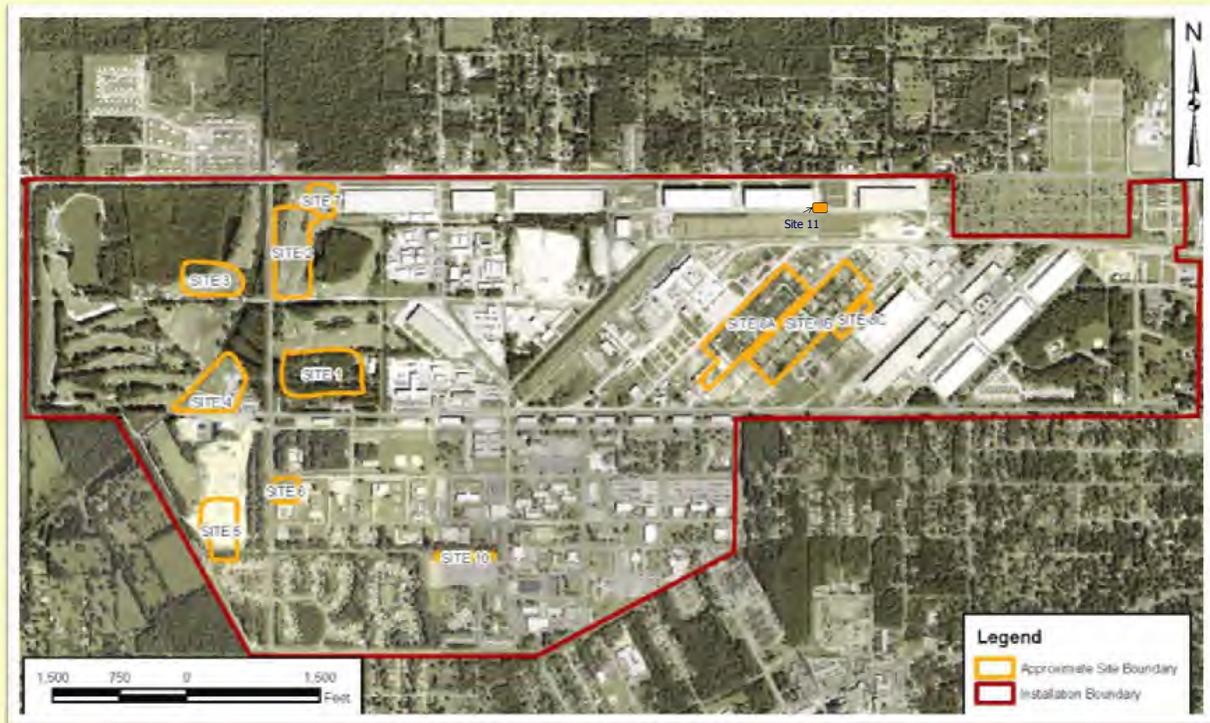


Finishing one of the nine monitoring wells that surround the landfill



Construction of the access path to the ball field

# Environmental Restoration Program (ERP) Update April 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 for cleaning up the site is being presented at the April 2014 RAB and Public Meeting.

## 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 is currently 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 During Landfill Cover Construction

## 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 polyaromatic 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 twice a year 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 April 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 in progress.

## Site 8, Former Herbicide Orange Storage Area



Site 8 Was Covered with a Concrete Cap in 2006

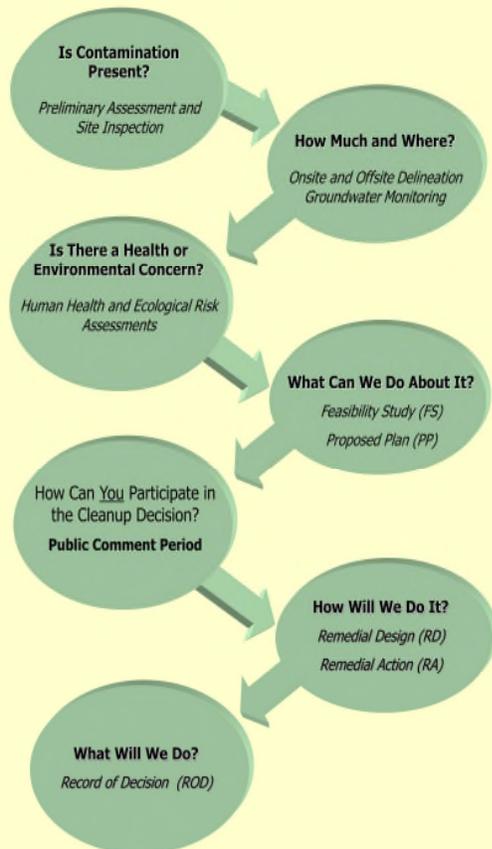
- ❖ Site 8 was used by the Air Force to store Herbicide Orange during and after the Vietnam War.
- ❖ Some of the drums of the herbicide leaked over time, releasing dioxin contamination into the soil and ultimately into the ditches that led off-base.

**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.

## The Cleanup Process



## 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) drums of coal tar distillate were found buried at the site.
- ❖ Drums were removed and disposed, contaminated soil was removed, and groundwater monitoring was initiated under a quick-response program.
- ❖ Groundwater monitoring continues at the site.

## Military Munitions Response Program

- ❖ Preliminary Assessment is complete. Ten sites were identified where small arms were potentially used.
- ❖ No further investigation of the sites are planned under the ERP.