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NCBC GULFPORT
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MEETING SUMMARY AND POSTER MATERIALS PRESENTED AT THE DECEMBER 2014 PUBLIC MEETING FOR WORLD WAR II LANDFILL (SITE 2) NCBC GULFPORT MS
12/2/2014
NAVFAC SOUTHERN

Public Meeting

World War II Landfill (Site 2) Proposed Plan

December 2, 2014

Gulfport Public Library
1708 25th Avenue
Gulfport, MS 39501

Meeting Format and Content

The World War II Landfill (Site 2) Proposed Plan Public Meeting was held from 2-4 pm on December 2, 2014 at the Gulfport Public Library. The Public Meeting marked the opening of a 30-day Public Comment Period for the Proposed Plan.

The Proposed Plan was presented in a poster session format to provide an opportunity for community members to engage in an informal dialogue with the project team.

A court reporter was present to record discussions, questions, and comments at the meeting. A copy of the meeting transcript is available in the Administrative Record for the NCBC Gulfport Environmental Restoration Program. The Administrative Record File is available online at http://go.usa.gov/ZVGV.

Meeting Content

Posters on display included:

- An Overview of Site 2, the World War II Landfill,
- Results of the Remedial Investigation, and
- The Proposed Cleanup Alternative for Site 2.

Posters describing polynuclear aromatic hydrocarbons (PAHs), a contaminant found in soil and groundwater at the site, were also on display.

World War II Landfill (Site 2)
Proposed Plan

NCBC GULFPORT
ENVIRONMENTAL RESTORATION PROGRAM

Summary of the Site 2 Proposed Plan

This Fact Sheet summarizes the Navy's proposal to address contaminants detected in soil and groundwater at Site 2, the World War II Landfill, at the Naval Construction Battalion Center (NCBC) Gulfport. Site 2 was reportedly the primary area for waste disposal on the base from 1942 until 1948. Completed studies identified polynuclear aromatic hydrocarbons* (PAHs) as contaminants of concern (COCs) in soils. PAHs were also found in the groundwater beneath the site along with iron and arsenic. PAHs are a group of compounds that are created when hydrocarbons (such as coal or gasoline) do not burn completely.

The Proposed Plan for Site 2 recommends grading the site to ensure a 2-foot minimum clean fill and topsoil cover. The regrading effort would occur across the site and excavating a small area of PAH-contaminated surface soil and placing it under the soil cover. The remedy would be completed by limiting future use of the site with land use controls, and conducting long-term groundwater monitoring to ensure that contaminants are not leaving the site.

Site 2 is a mainly grass-covered area in the western portion of NCBC Gulfport. This photo was taken from the west, looking

Site 2 — World War 2 Landfill

Background

Site 2 was reportedly the primary area for waste disposal on the base from 1942 until 1948. The landfill received wastes mainly from public works shops and the supply department. Waste fuel, oil, solvents, paint, and paint thinners were transported to the site, disposed in trenches (approximately 8 feet deep), burned, and buried. The waste disposal area was covered with soil when disposal activities ceased in 1948. Additional fill was added as part of the construction of the Pine Bayou Golf Course, which closed in 2011. The site is currently being used as a training area.

Site 2 is a relatively flat area located on approximately 11 acres north of 8th Street and east of Colby Avenue.

Environmental Studies

The World War II Landfill was identified as a possible site in 1985 as part of a basewide initial assessment. A follow-on study in 1987 indicated that metal objects were likely present in the landfill. Environmental sampling results did not detect contamination exceeding regulatory levels. In 1994, a basewide groundwater investigation found dioxin north of Site 2. Recommendations from this study included resampling the groundwater due to the dioxin detection. Groundwater was resampled in 1999 as part of another basewide study. None of the newly installed monitoring wells at Site 2 contained dioxins during this sampling event.

In 2011, the Navy began a remedial investigation (RI) at Site 2. During the RI, low concentrations of PAHs, herbicides, and metals were found in soils and groundwater at concentrations exceeding Mississippi Department of Environmental Quality (MDEQ) criteria. Because the residential screening indicated buried waste lies beneath the pond, the Site 2 boundary was extended to the east to include the entire area of the pond.

In 2012, additional studies were completed to evaluate the existing soil cover and the depth of the landfill wastes. One soil sample, located outside of the Site 2 landfill boundary to the north, contained COCs in the surface soil at concentrations requiring further investigation. The study in this area will be completed as part of the Site 7 investigation that is currently underway.

*Polynuclear Aromatic Compounds

Polynuclear aromatic compounds, commonly referred to as "PAHs", are organic compounds containing hydrogen and carbon combined in an (aromatic) ring. PAHs are found in oil (coal), and tar and can be produced by incomplete burning of organic matter as in forest fires, incinerators, and engines.

Meeting handouts included copies of the Proposed Plan, a Proposed Plan Fact Sheet (shown above), copies of the PAH poster content, and a Glossary of Terms and Acronym List.

The Proposed Plan and Proposed Plan Fact Sheet are available in the NCBC Gulfport ERP Administrative Record File.

Meeting Outreach

A Public Notice (shown on the right) was placed in the Sun Herald on November 30, 2014.

NCBC Gulfport Environmental Public Meeting

Topic: The Proposed Plan Site 2, World War II Landfill

Tuesday, December 2, 2014
2:00 – 4:00 PM

Gulfport Public Library
1708 25th Avenue
Gulfport, Mississippi 39501

The Navy will be discussing their Proposed Plan to address contaminants found in soils and groundwater at the former Navy landfill known as Site 2 at the Naval Construction Battalion Center (NCBC) Gulfport. The plan proposes to regrade surface soil to promote drainage and site reuse, maintain an existing 2-foot minimum clean soil cover, protect the soil cover from eroding with sod, restrict future land use, and monitor groundwater to ensure that contaminants are not leaving the site. The improved landfill cover will prevent direct contact with the contaminated contents of the landfill and would, therefore, be protective of human health and the environment.

A **Public Comment Period** for the cleanup proposal will begin on December 2, 2014, and end on January 5, 2015. 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 5th Avenue, Gulfport, Mississippi, 39501.

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

RAB Gulfport, Mississippi

- Meeting Announcement -

Restoration Advisory Board (RAB) NCBC Gulfport

- Topics -

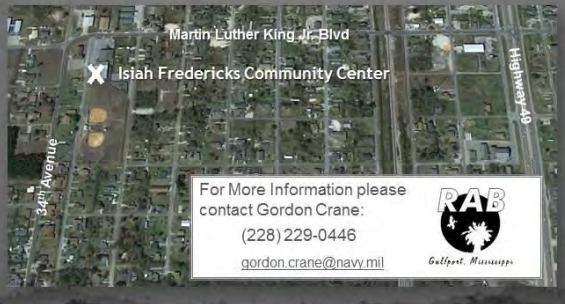
Rubble Disposal Area (Site 7) Remedial Investigation Update

Haul Road Removal North of 28th Street

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

When: Monday, November 3, 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.



A flyer (shown on the left) was mailed to the interested parties on the RAB mailing list.

Meeting Attendees

RAB Members:
Gordon Crane (NCBC Gulfport Representative)
Philip Shaw
Bob Fisher (Naval Facilities Engineering Command)

Community Members:
Dorothy Ladner

NCBC Gulfport Representatives:
Kevin Gillum (Community Planning Liaison Officer)
Rob Mims (Public Affairs Officer)
Lisa Noble (Environmental Manager)
Robert Shiyou (Public Works Director)

Technical Support:
Greg Roof (Tetra Tech Project Manager)
Nancy Rouse (Tetra Tech Community Relations Specialist)

Mississippi Department of Environmental Quality (MDEQ):
Gloria Tatum (Office of Community Engagement)
LaTasha Jefferson (Office of Community Engagement)
Casandra Johnson (Office of Community Engagement)

World War II Landfill - Site 2
Background and Description

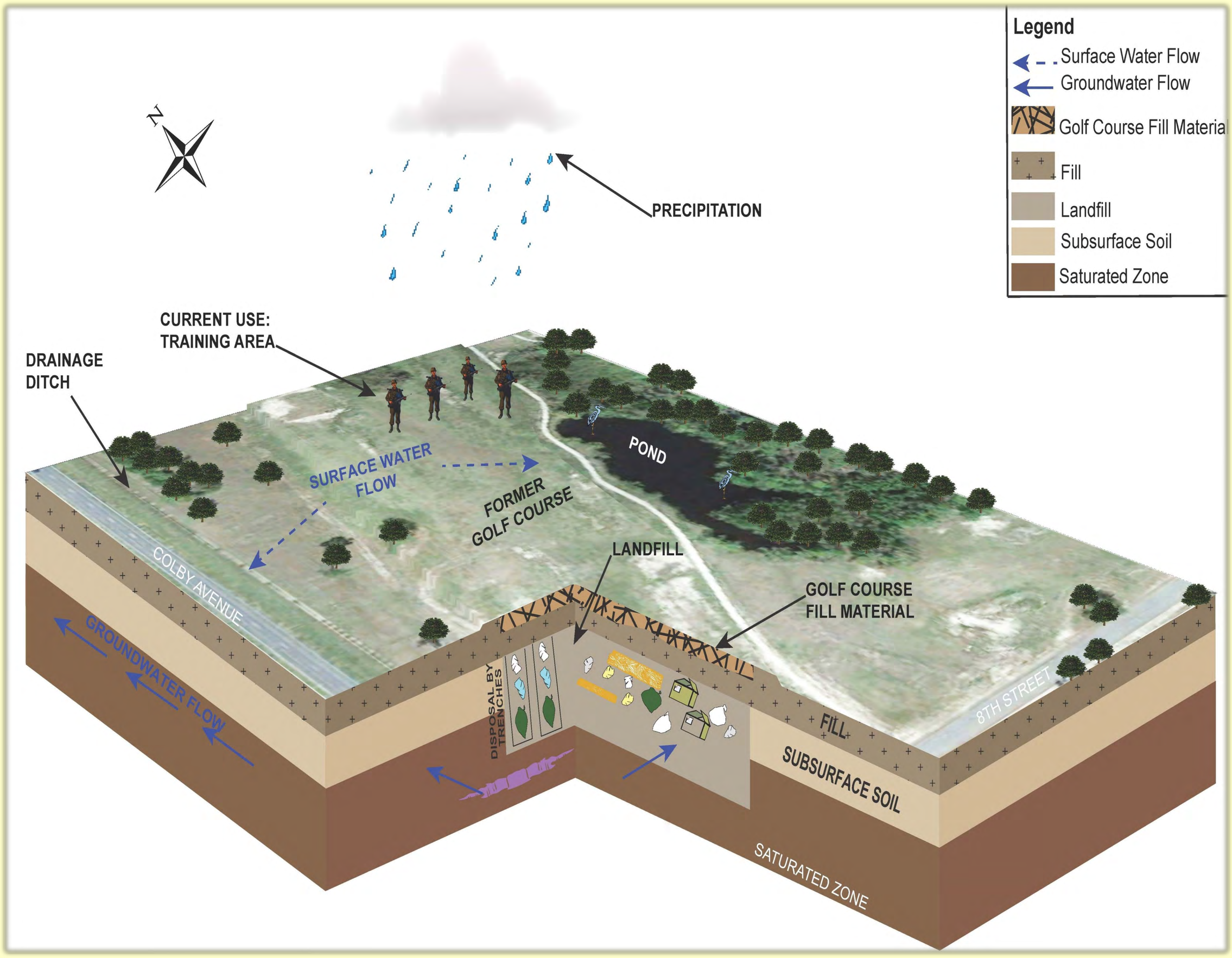
Site 2 is a former 11- acre landfill located to the north in the western section of NCBC Gulfport.

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

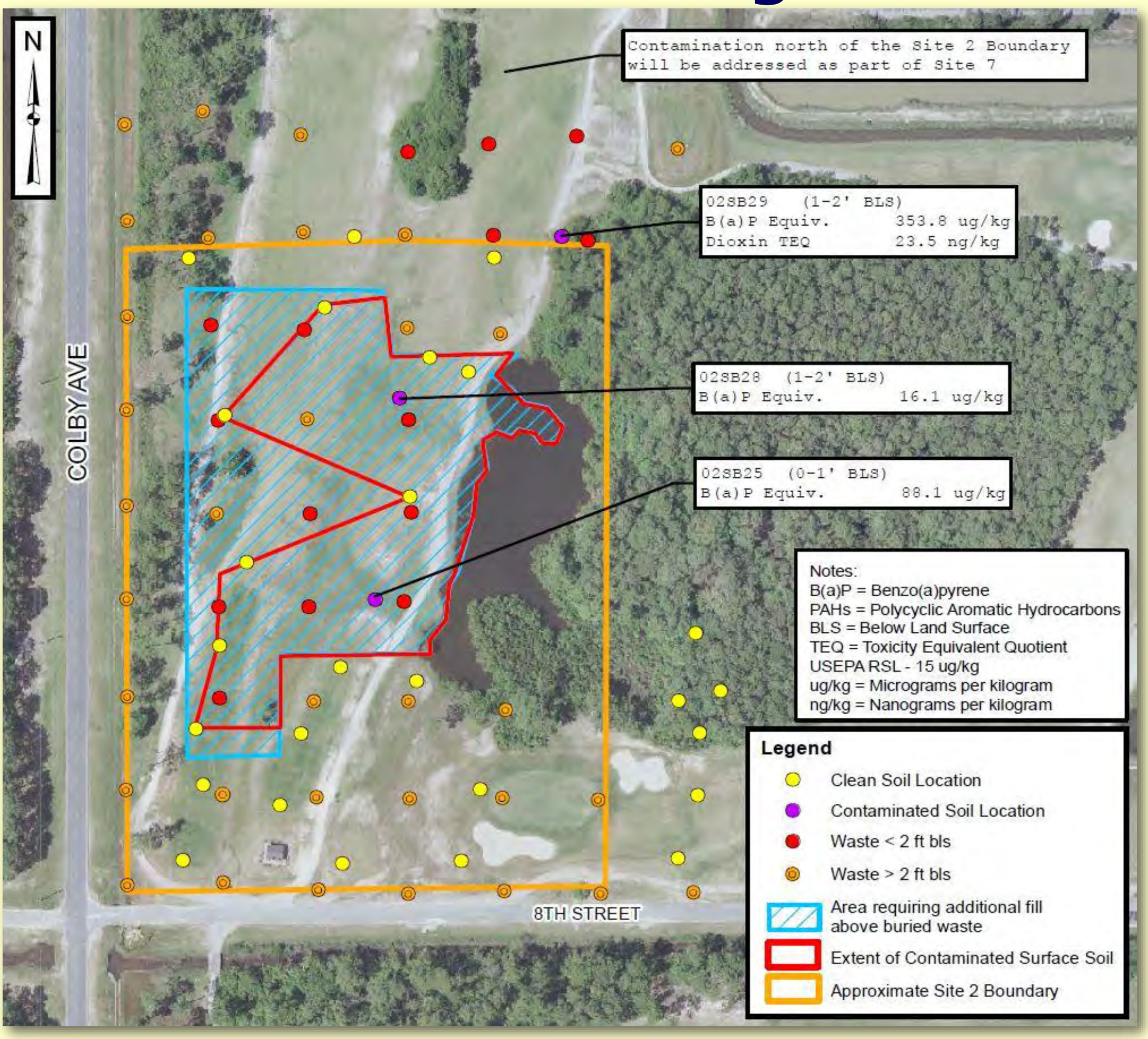
- The World War II landfill operated from 1942-1948.
- Wastes, mainly from the supply department and public work shops, were moved to the site, burned, placed in trenches, and buried.
- Types of waste included:
  - used waste fuel
  - oil
  - solvents
  - paint
  - paint thinners
- The area was covered 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.

December 2014

World War II Landfill - Site 2
Remedial Investigation



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.

World War II Landfill - Site 2
Proposed Remedy

The Feasibility Study and Proposed Plan

A **Feasibility Study** was completed to evaluate three possible cleanup alternatives for Site 2:

1. The **No Action** alternative is always evaluated as a baseline for comparing alternatives.
2. The **Cover and Land Use Control/Long Term Monitoring (LUC/LTM)** alternative includes regrading of existing surface soil to promote drainage, installing and maintaining a 2-foot minimum clean soil cover, planting grass or other plants to prevent soil erosion, implementing land use controls, and long-term sampling of groundwater to detect if contaminants are moving from the site.
3. The **Treatment and Capping** alternative includes all of the actions in the Cover and LUC/LTM alternative plus a three-layered landfill cover consisting of topsoil, compacted soil, and a landfill gas-venting system, along with groundwater treatment.

Preferred Remedy for Site 2

The Navy's Proposed Plan recommends **Cover and LUC/LTM** as the Preferred Remedy for Site 2. This alternative has been shown to be protective of human health and the environment without the additional costs of implementing the Treatment and Capping alternative.

Regrade Surface Soil Across the Site

- The site will be regraded to promote drainage and site reuse.
- PAH-contaminated surface soil would be excavated and placed beneath soil cover.

This photo was taken at Site 3 and is an example how soil surface soil would be regraded at Site 2.

Plant Grass

Grass or other shallow rooted vegetation would be planted over the completed landfill cover to prevent soil erosion.

This photo was taken at Site 3 and is an example of how sod will be planted at Site 2.

Install and Maintain Current Soil Cover

- Install and maintain a 2-foot soil cover composed of clean fill and topsoil.
- The soil cover prevents contact with landfill contents and prevents transportation of landfill contents by erosion.

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.

December 2014