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NCBC GULFPORT
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PUBLIC NOTICE REGARDING BACKGROUND AND DESCRIPTION SITE 5 HEAVY
EQUIPMENT TRAINING AREA LANDFILL NCBC GULFPORT MS
11/30/2007
NCBC GULFPORT

Heavy Equipment Training Area Landfill - Site 5 Background and Description

Site 5 Facts

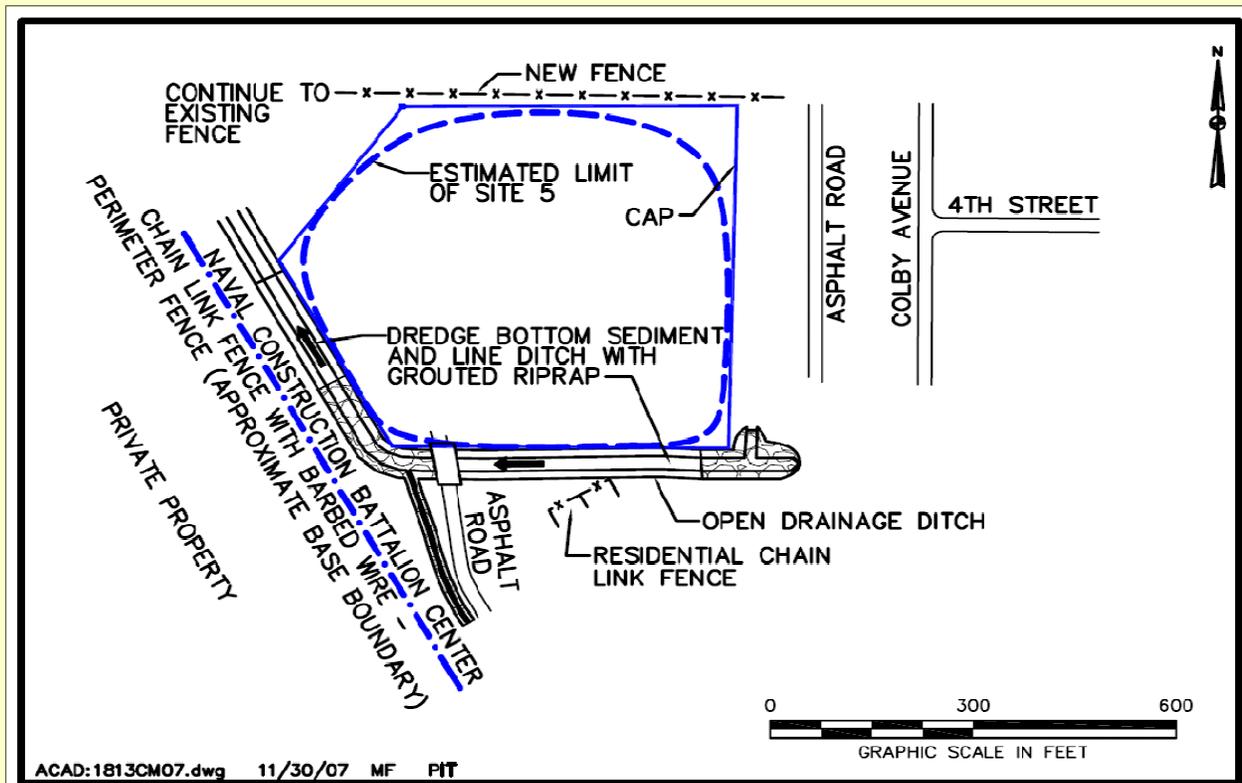
- The former Heavy Equipment Training Landfill operated from 1972-1976.
- Solid waste, such as construction debris, dumpster waste, and general refuse, made up the bulk of the material disposed at the site.
- Liquid wastes were also disposed of at the landfill.
- After landfilling activities were stopped, the site was covered with 4 to 6 feet of sand and used as a heavy equipment training area.
- The site was discovered during the Initial Assessment Study in the mid-1980's. Additional samples were collected in 1997 as part of a base wide study.
- Site 5 was fully evaluated during the Remedial Investigation (RI) in 2001 and 2002 and with an additional soil investigation in 2006.



Site 5 is a former landfill. The landfill was closed in 1976 and covered with 4 to 6 feet of sand. It is currently being used for heavy equipment training. This 6-acre site is mostly flat with a large earthen mound near the center.



Site 5 is located in the southwest corner of NCBC Gulfport.



Site 5 showing the extent of the landfill and the proposed landfill cover.

Heavy Equipment Training Area Landfill - Site 5 Remedial Investigation (RI) Results

Summary of the Remedial Investigation Results

- **Dioxins** were detected at the site at concentrations that were acceptable for industrial use but not for residential use. The sources of dioxins reported could include incineration of site wastes.
- **Benzo(a)anthracene (BaA)** was found in the groundwater beneath the site. BaA is a probably human carcinogen (cancer causing agent) formed when gasoline, garbage, or any animal or plant material burns.
- **Arsenic** was found in the surface soil samples at concentrations that were acceptable for industrial use of the site but not for residential use. Arsenic is a naturally and commonly occurring element and a known human carcinogen.
- No surface water contamination was found in ditches on the perimeter of the site.
- The RI concluded that drums containing Herbicide Orange were not buried at the site.



Surface and subsurface soils were found to contain concentrations of dioxins and arsenic that were acceptable for industrial use of the site but not for residential use.

Summary of Site Risks

- Exposure to soil and groundwater at Site 5 poses an unacceptable risk to humans only if housing were developed on the site.
- Some contaminants at the site pose a potential risk to organisms other than humans. However, when the quality, size, and actual use of the site is considered, the ecological risk of the site was determined to be minimal.
- Covering the landfill and lining the adjacent ditch is recommended to protect human health or welfare or the environment from the potential for future releases from the landfill.

A ditch runs along the south and southwestern boundaries of Site 5. The ditch is approximately 30 feet wide and between 1 and 4 feet deep at the site. The water in the ditch was found to be clean. One sediment sample contained dioxins.



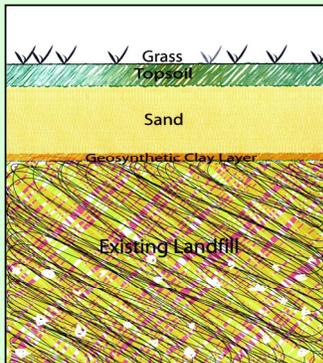
Heavy Equipment Training Area Landfill – Site 5 Preferred Alternative

The Feasibility Study (FS) and Proposed Plan

- Because conditions at Site 5 are similar to a typical municipal landfill, the federal EPA's "Presumptive Remedy" approach was used to streamline the site restoration process.
- Using the streamlined process, only two remedies needed to be evaluated in the FS. Alternative 1 assumes that no changes would be made to the conditions at the site. Alternative 2, the Presumptive Remedy, includes capping, ditch lining, land use controls, and monitoring.

The Navy's Proposed Plan recommends Alternative 2 - Capping, Ditch Lining, Land Use Controls, and Monitoring.

Landfill Cap



- The site would be capped using a surface cover consistent with MDEQ regulations.
- Landfill gas would be monitored by checking for methane in monitoring wells installed along the perimeter of the site.
- The final cover would be planted with grass and would be suitable for use as a recreational area.

Ditch Lining



- Sediment and soil would be excavated from the bottom and landfill sides of the ditch.
- The bottom and sides would be lined with grouted rock to prevent erosion of soil and waste and to reduce the flow of groundwater from the site into the surface water of the ditches.

Land Use Controls and Monitoring



- Site controls would include preventing residential development and groundwater use at the site.
- Periodic inspections and annual monitoring would be required to check the integrity of the cap.
- Periodic groundwater monitoring would ensure that contaminants were not leaching into the groundwater.