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FACT SHEET REGARDING STUDY AREA 17 NTC ORLANDO FL
3/1/2010
NTC ORLANDO



Naval Training Center Orlando Florida



Study Area 17 (SA 17)

This fact sheet was developed to inform interested citizens about the Naval Training Center (NTC), Orlando environmental program. Fact sheets will be distributed periodically to keep the community informed. Additional copies of these fact sheets can be obtained by contacting Art Sanford at (843) 743-2135.

NTC Orlando's Environmental Program

Environmental studies and cleanup actions are currently underway at the former NTC, Orlando as part of the Department of Defense's Installation Restoration (IR) Program. Through this program, areas of known or suspected contamination from past practices and operations are being identified, evaluated, and, if necessary, cleaned up.

Site Description

Study Area 17 is located in the central portion of the McCoy Annex at the former NTC, and occupies 9.082 acres (Figure 1). This site is the former Defense Property Disposal Office. Several buildings were located there. One of these buildings was a motor pool and included a wash rack with drainage to a former leach bed, and another building stored hazardous and flammable materials. In addition there were also drum and transformer (with polychlorinated biphenyls) storage areas. All buildings were demolished in 2009.



Figure 1: Study Area 17 Location Map

Site Investigation and Remediation History

Environmental work at began with an initial site screening in 1995. During this work, polynuclear aromatic hydrocarbons (PAHs) were found in soil at concentrations exceeding cleanup standards, and chlorinated volatile organics were found in groundwater at concentrations exceeding cleanup standards. Natural groundwater flow is towards a drainage canal, and

offsite to adjacent City of Orlando property known as Study Area 50. Subsurface conditions at Study Area 17 are shown in Figure 2.

In 1999, PAH contaminated surface soil was removed to levels acceptable for non-residential use. Groundwater treatment began in 2000 and consisted of injection of hydrogen peroxide and trace quantities of metallic salts under pressure. This system was designed to work by destroying (oxidizing) organic contaminants in the soil below the water table and in the groundwater.

In 2003, trichloroethene (TCE) sampling results prompted additional investigation of both subsurface soil and groundwater. Enhanced bioremediation was selected as a cleanup strategy, using Emulsified Oil Substrate (EOS®) injected into groundwater to promote anaerobic degradation of contaminants. Enhanced bioremediation (using EOS®) wells were installed in 2006. The most recent EOS® polishing injections were performed in 2008.

Study Area 17 property was transferred to the City of Orlando in 2008. The planned future use for the property is commercial/industrial.

In addition to groundwater treatment and soil removal, land use restrictions have been implemented to protect human health and prevent exposure to groundwater. Use of the property is limited to non-residential and disturbance or removal of soil is prohibited. A groundwater use restriction is also in place. To prevent possible exposure to contaminants migrating upwards from contaminated groundwater, construction of new buildings is prohibited without prior written approval. To address groundwater migration towards adjacent property owned by the City of Orlando, the city has agreed to impose groundwater restrictions there as well.

What's Next?

Groundwater is monitored semi-annually at SA 17. Trichloroethene (TCE) and cis-1,2-dichloroethene (DCE) and their degradation products remain the contaminants of concern at the site. The overall goal is to reduce contaminant concentrations to Florida Department of Environmental Protection Groundwater Cleanup Target Levels. If concentrations of groundwater contaminants

increase, EOS injections will be repeated to enhance natural degradation.

The final decision document for SA 17 is underway and is expected to be complete in 2010.

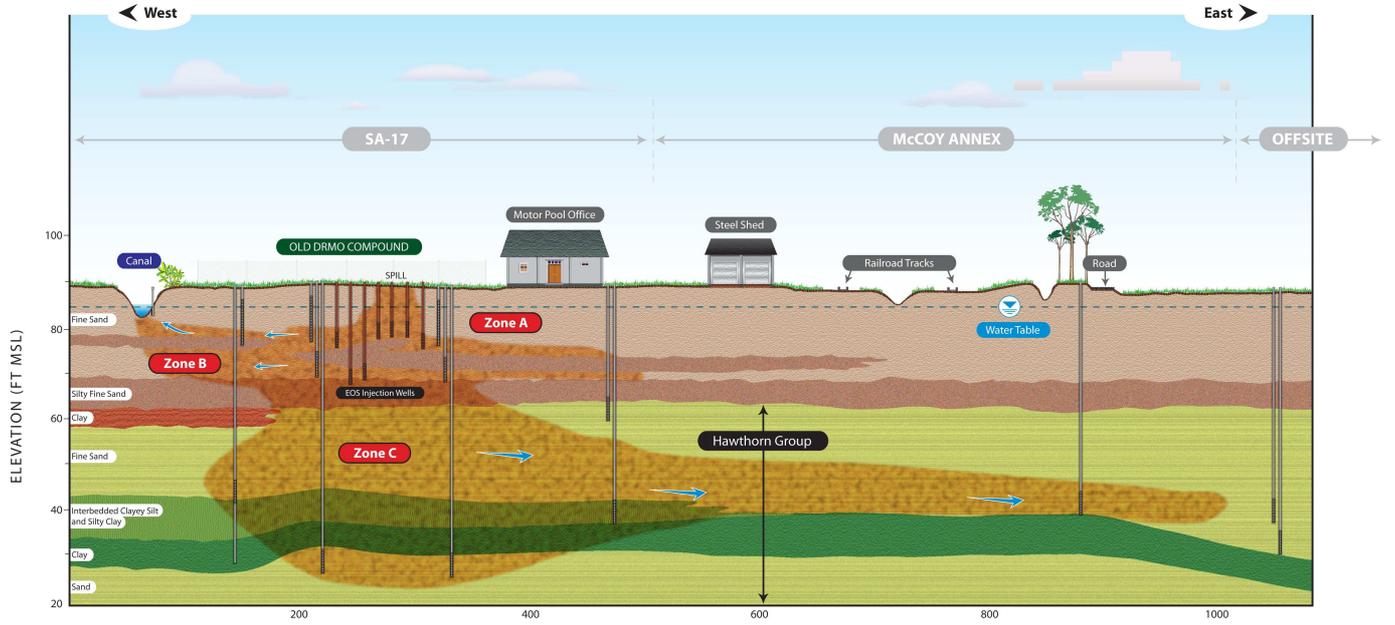


Figure 2: Subsurface conditions showing the former Motor Pool Office building and groundwater flow direction.

For More Information

The public is invited to submit any questions or comments on the remedial action described in this fact sheet. Comments should be directed to Art Sanford at (843) 743-2135. Reports on the work conducted at SA 17 can be reviewed at the Orange County Public Library, Orlando Branch (4th Floor), 101 East Central Boulevard, Orlando, Florida 32801.

What are PAHs, TCE, and DCE?

Polynuclear aromatic hydrocarbons (PAH) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat. PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Trichloroethene (TCE) is a nonflammable, colorless liquid used mainly as a solvent to remove grease from metal parts, but it is also an ingredient in adhesives, paint removers, and spot removers.

Cis-1,2-dichloroethene (DCE) is an odorless liquid. It is used as a solvent, in the extraction of rubber, as a refrigerant, in the manufacture of pharmaceuticals and artificial pearls; in the extraction of oils and fats from fish and meat.

More information about these contaminants can be found at the following website:

<http://www.atsdr.cdc.gov/>