Cabot Koppers Superfund Site, Gainesville, FL

Background. The Koppers site, located on NW 23rd Ave in the City of Gainesville, consists of the western half of a designated Federal Superfund site (known as the Cabot-Koppers Superfund site) due to contamination with wood treating chemicals in site soils and groundwater. The eastern half is the Cabot site which contains groundwater contamination from past pinetar, pine oil and charcoal production. This site is under active remediation. Since 1983, the Florida Department of Environmental Protection (FDEP) and subsequently the United States Environmental Protection Agency Region 4 (USEPA) have been responsible for directing investigation activities at the Koppers site that are being performed by Beazer East, Inc., the responsible party for the site contamination.

These investigations have been directed toward developing a final clean-up strategy for the site contamination. In 1990 the USEPA approved a remedial plan for the site which was only partially implemented by Beazer through the installation of a surface water containment and treatment system. Source remediation was not implemented due to the discovery that the extent of contamination in the source areas and the groundwater had not been adequately assessed.

In 2001, USEPA developed an amended remedial plan for the site in a draft Record of Decision (ROD) that assumed that soil contamination at the site would be prevented from leaching into the Floridan Aquifer (a vital groundwater resource located in the limestone formations beneath the site) due to the assumed impenetrable nature of the Hawthorn Group formation located between the soil contamination sources and the deeper Floridan Aquifer underlying the site. However subsequent testing at the site from 2002 - 2005 confirmed that, in fact, 1) significant levels of dissolved contaminants had migrated to the deeper zones of the intermediate Hawthorn Group formation and the Floridan Aquifer.

The Floridan Aquifer, serves as the source of drinking water for over 175,000 people in Alachua County and is the water source for the City of Gainesville Murphree Wellfield located two miles north of the Koppers site.

City and County Resolution. In March and April 2004, the Alachua County Commission and the City of Gainesville Commission approved identical resolutions that were delivered to the congressional delegation, state legislative delegation and the Administrators of USEPA and the FDEP requesting expedited action by USEPA on the Koppers site contamination issues.

Recent Significant Events. Investigation of the source areas conducted by Beazer in April, May and June 2004 indicated that creosote type materials were present in the upper and lower Hawthorn Group formations at the site at depths of approximately 60 to 100 ft below ground surface in several of the 4 primary source areas at the site. Additionally for the first time significant groundwater contamination was detected in one well (FW-6) installed into the upper zone of the Floridan Aquifer near the North Lagoon contaminant source area at depths of approximately 150 ft below land surface. The depth of this

found contamination in the Hawthorn and Floridan Aquifers was unexpected and presented a potential threat to the City of Gainesvilleï¿½s Murphree Wellfield.

Concern About Murphree Wellfield and Need for Enhanced Floridan Aquifer Monitoring. ACEPD, GRU and USEPA continue to have a heightened level of concern about the contamination in the Floridan Aquifer and its possible migration toward the Murphree well field. This concern caused GRU to hire a team of expert consultants on creosote type contamination and groundwater impacts to review and comment on the site contamination situation and especially the concerns about the Murphree Well field.

GRUs expert team had significant concerns with regard to assumptions used by Beazer in their Groundwater Model and based on running the model with assumptions which are more appropriate for the site, the GRU experts predicted travel times for contaminants from the Koppers site to reach the City of Gainesvilleï¿½s Murphree Wellfield may be as low as 4 to 5 years and that the Floridan Aquifer contamination below the Koppers site poses a significant threat to the Citys water supply.

Based on the results from the expert team, GRU demanded that USEPA direct Beazer to 1) implement comprehensive Floridan monitoring within 60 days, 2) design interim Floridan recovery and treatment within 120 days to contain contamination on the site, 3) install Floridan recovery and treatment within 180 days, 4) begin source (contaminant) removal in the surficial (surface) aquifer as part of an initial remedial action depending on the Floridan monitoring findings, and 5) change the Beazer Floridan Aquifer monitoring plan to include a transect of multi-level wells, including wells located immediately downstream of source areas, in order to adequately assess the Floridan Aquifer contamination and the immediate threat to the Murphree wellfield.

ACEPD and the USEPA supported the recommendations for a transect of multi-level monitoring wells in the Floridan Aquifer including wells near the 4 source areas on the Koppers site.

In July 2005, EPA requested that Beazer implement the multi-level Floridan Aquifer Monitoring plan with 8 transect wells and 4 source area monitoring wells. Multilevel monitoring wells were installed and sampled in early 2006. Contamination with creosote was detected in the Floridan Aquifer at approximately 200ft below land surface. Floridan Aquifer multilevel wells sampling groundwater zones depths from 200 to 350 ft below land surface were installed by Beazer in early 2007 at the northern boundary of the Koppers site to investigate the potential for contamination migration in the deeper Floridan Aquifer zones, assess the hydraulic properties of the deeper aquifers and detect and assess the vertical extent of contamination in the Floridan Aquifer.

Additional Current and Future Activities and Issues. In April 2006, the US Corps of Engineers completed the second five year review for USEPA's remediation activities at the Cabot-Koppers Superfund site. This report recommended 12 additional investigator activities including improvement and evaluation of the effectiveness of the Boundary Well Extension System at the Koppers site and the Main Street Trench Collection System

at the Cabot site.

Beazer in the Fall of 2006 conducted a comprehensive sampling of surficial soils to depths of 2 ft below land surface on a grid covering the entire Koppers plant site. This supplemental soil sampling was intended to gather additional data on the amount and extent of contamination present in the near surface soils to provide data to evaluate risks from direct contact and also airborne risks from dust from the site. The risk data will be used in establishing clean-up standards for surface soils from the site.

Upcoming Work Efforts and Issues include:

- USEPA needs to decide on extent of threat to City Wellfield based on groundwater data
- Potential containment of the Floridan Aquifer, including Aquifer tests
- Investigation of the Hawthorn Intermediate Aquifer on site and to west of the site.
- Pilot test to evaluate the potential to remove contamination from the Upper Hawthorn
- Upgrade of the boundary well surface water containment system
- Completion of the revised feasability study and remedial alternatives.

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Summaries and Key Reports
Overview of Cabot Koppers Superfund Site - Presented to UF Environmental Law Class by John J. Mousa, Ph.D. Alachua County EPD March 29, 2007 pdf format: (http://www.alachuacounty.us/assets/uploads/images/EPD/Polution/Final%20UF%20Cabot%20Koppers%20Presentation%203-29-07%20Compressed2%20Web.pdf)

04-07-06 US Army Corp of Engineers Cabot Carbon/Koppers 5 year review: (http://assets.alachuacounty.us/uploads/images/epd/polution/US_EPA_2nd_5Yr_ReviewCabotKoppers.pdf)

Sites in Continued Use
Gainesville Commercial & Industrial Property

Main Street & 23rd Avenue, Gainesville, Florida 32601

Site Name: Cabot/Koppers Superfund Site

Size: 170 acres (includes 90-acre Koppers Industries property and 49-acre Cabot Carbon property)

Supported Site Uses: Industrial land uses

Existing Site Infrastructure: All major utilities are available on-site.

Readiness for Use: In continued use during the site's remediation: retail areas (shopping mall, automobile and boat sales), office buildings and wood preserving, manufacturing and warehouse facilities; extensive paved parking and storage areas. Restricted use: all ground water use will be prohibited at the site.

Gainesville, Florida
The site is located in a commercial and residential area of the City of Gainesville, Alachua County, Florida. The site is located one mile east of U.S Highway 441.

SETTING:

- The Cabot/Koppers Superfund site is zoned for mixed-use, industrial, and commercial land uses. Surrounding areas are zoned for residential, commercial, and public land uses.
- Surrounding land uses include commercial businesses, car dealerships, and apartments to the north and south, undeveloped land to the east, and single-family homes to the west.
- Gainesville's Public Works Compound and Springstead Creek are located northwest of the site.
- Surrounding population: 0.5 mile, 4,274 people; 2.5 miles, 55,595 people; 4 miles, 97,670 people.

REMEDIAL STATUS:

- Remediation of the Cabot/Koppers Superfund site is ongoing. Remedial activities include a surface water interceptor system and the pumping and treatment of groundwater. EPA is conducting studies to identify additional remedial options for remaining on-site contamination.

FOR MORE INFORMATION, PLEASE CONTACT:

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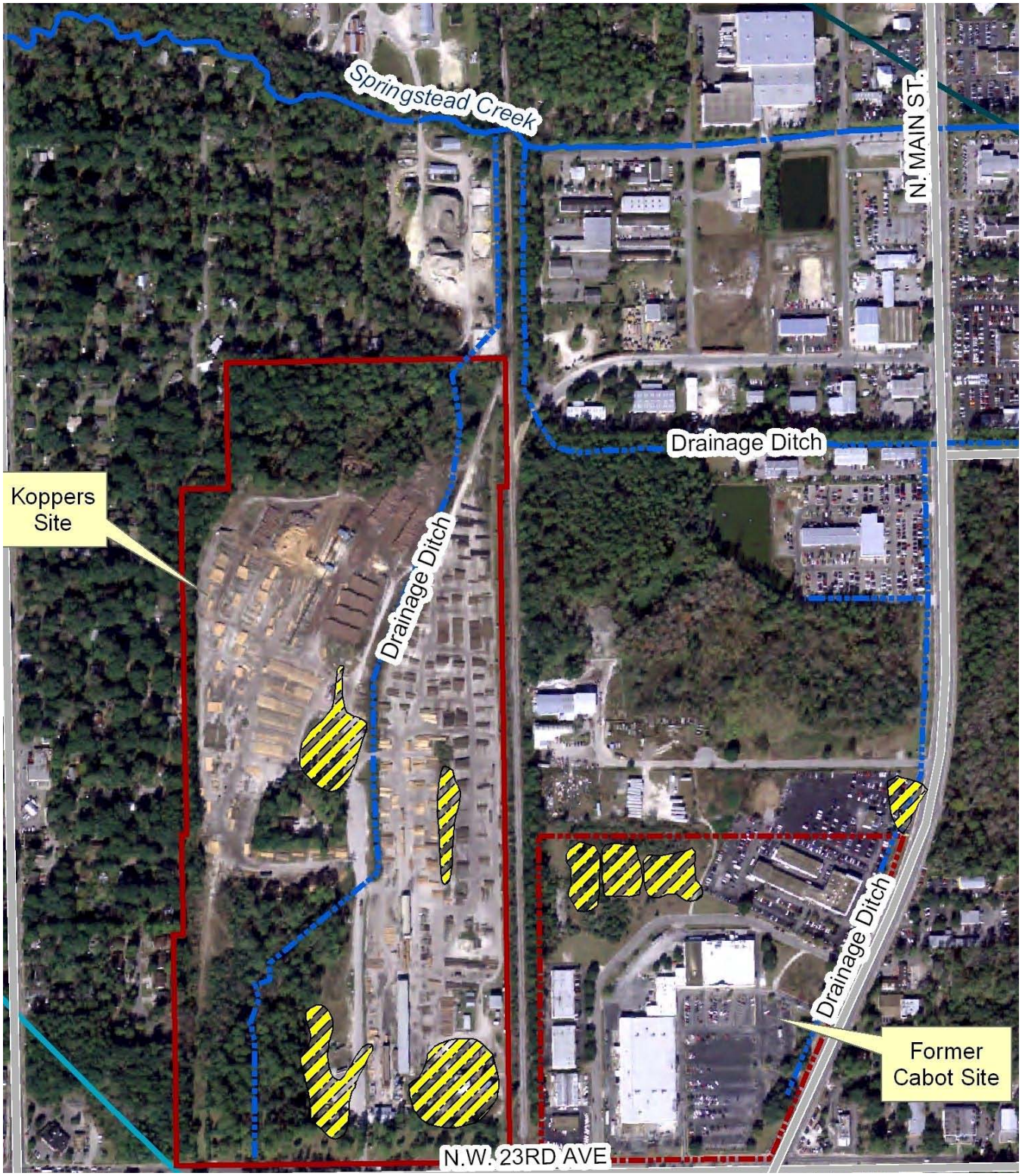
Springstead Creek
N. MAIN ST.
Drainage Ditch
Koppers Site
Drainage Ditch
Drainage Ditch
Former Cabot Site
N.W. 23RD AVE