



## Cabot/Koppers Superfund Site Update

Gainesville, FL  
Joint City/County Commission Meeting  
May 1, 2008

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## Presentation Outline

- Activities Since 2001
- 2006 Five-Year Review recommendations
- Koppers Feasibility Study (FS) development
- Further Hawthorn investigation – former Cabot Site

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## Presentation Outline (continued)

- Future land reuse possibilities

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## Site Location

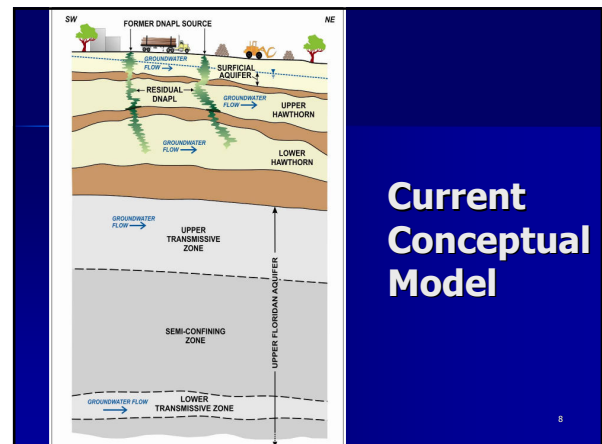
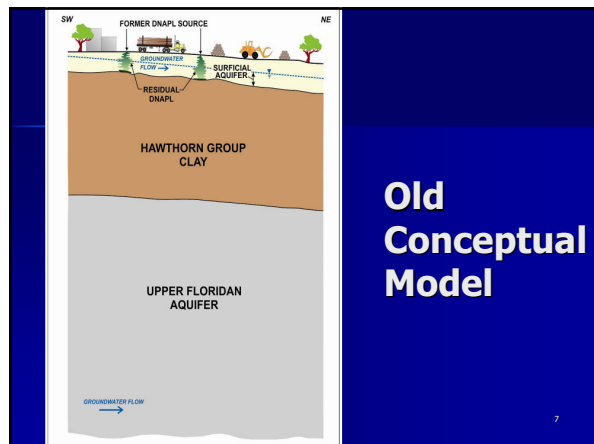
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## Site Layout

- Charcoal from pine no longer in operation 50 acres mostly redeveloped (Cabot)
- Wood treating facility in active operation since 1916 (Koppers) – 90 acres
- Murphee Wellfield – GRU water supply 2 miles north
- Superfund Site combines both operations (Cabot-Koppers)

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### Five Year Review Recommendations

#1: Re-evaluate Koppers Surficial Aquifer extraction system

- Re-evaluation complete
- Beazer submitting plan for extraction near source areas, consistent with revised conceptual site model
- New extraction system to be fully implemented within 6 months

### Five Year Review Recommendations

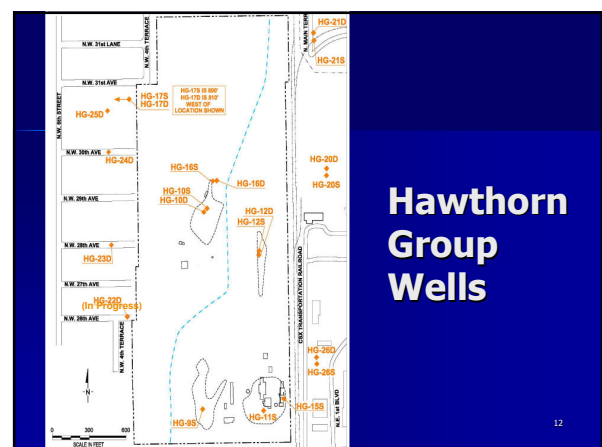
#2: Sample water and sediment in ditch that runs through Koppers and discharges to Springstead Creek

- On-site ditch sediment sampling completed
- Limited off-site sampling of ditches and Springstead Creek has been conducted by Alachua County

### Five Year Review Recommendations

#3: Delineate groundwater impacts in the Hawthorn Group – Koppers and Cabot

- Koppers (Beazer): Completed Hawthorn investigation (8 new wells + 27 pre-existing wells), 1 additional well being installed
- Cabot: Workplan submitted

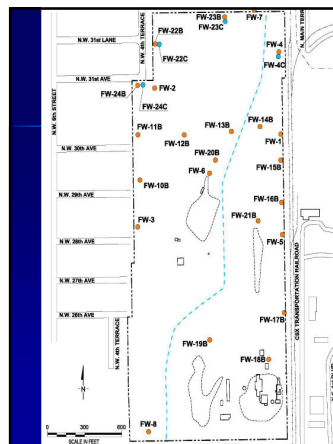


## Five Year Review Recommendations

### #4: Delineate potential groundwater impacts in the Floridan Aquifer

- New multi-port wells installed for horizontal and vertical delineation: 19 wells with 90+ sampling ports
- Quarterly monitoring since installation

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## Upper Floridan Aquifer Wells

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## Five Year Review Recommendations

### #5: Evaluate Interim Remedial Measures at source (NAPL) areas; implement if feasible

- Currently collecting NAPL manually with bailers
- Currently Pilot Testing an active NAPL recovery technology
- Implementing Pilot Test for stabilization using sodium permanganate solution
- Beazer to implement source-area groundwater containment as an interim measure

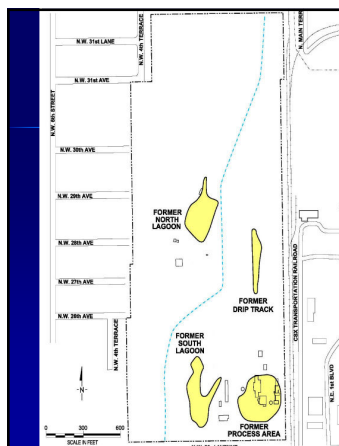
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## Five Year Review Recommendations

### #6: Delineate NAPL Sources; evaluate migration pathways through Hawthorn Group

- Extensive Source Delineation Report completed
- Detailed mapping of Hawthorn Group layers completed

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## Source Delineation

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## Five Year Review Recommendations

### #7: Investigate arsenic contamination, especially in Floridan Aquifer

- Studies completed; arsenic is naturally occurring in Floridan Aquifer
- Elevated levels in Surficial

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## Five Year Review Recommendations

### #8: Re-evaluate effectiveness of Cabot interceptor trench

Groundwater interceptor trench appears to be effective  
Confirmation data to be collected

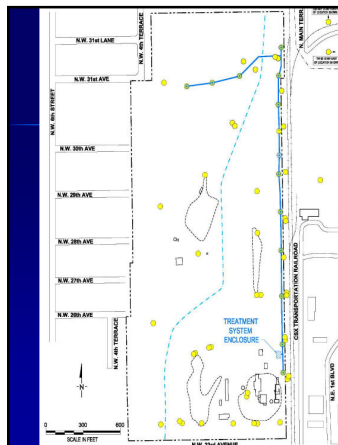
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## Five Year Review Recommendations

### #9: Redevelop and sample Surficial Aquifer Wells

- Redevelopment and sampling completed
- Report issued
- Continued monitoring planned

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## Surficial Aquifer Sampled Wells

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## Five Year Review Recommendations

### #10: Monitor air quality at Cabot lift station; implement treatment changes as needed

- Cabot evaluated and added exhaust filters followed with air sampling

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## Five Year Review Recommendations

- ### #11: Re-evaluate remedial goals
- New site-specific risk assessment in process for groundwater and soil
  - New data in use to develop site-specific clean-up criteria for Groundwater and soils
  - Florida RBCA chief driver

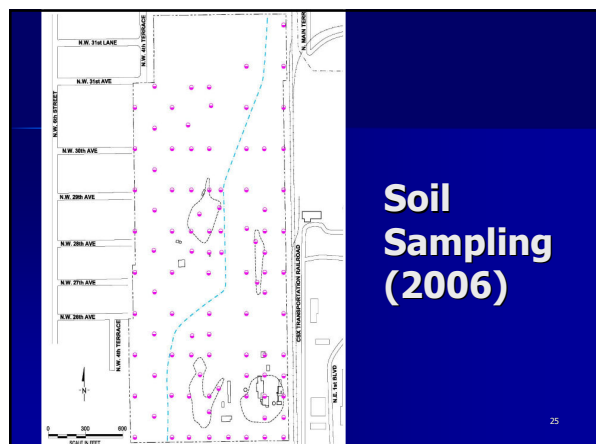
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## Five Year Review Recommendations

### #12: Delineate soil impacts

- Detailed on-site soil sampling completed for 90-acre Koppers property
- Soil contamination on Koppers Site

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## Soil Sampling (2006)

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## Collaborative Feasibility Study Process

- Collaboratively develop FS
- Goal to select comprehensive remedy for Koppers Site from possible approaches and technologies
- Final FS and Record of Decision (ROD) amendment targeted for 3/09

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## Joint FS Results to Date

- Developed (7) alternatives of site technology applications for on-site (FDEP, Beazer, EPA)

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## Old Cabot Property

- Further investigation of Hawthorn Group ongoing

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## What approaches may be used in final remedy?

- DNAPL Recovery
- Surficial extraction system
- Containment
- Soil solidification, capping, cover, excavation
- Long-term monitoring/contingency plans

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## Ground-Water Cleanup Standards or Goals

- For contaminants with drinking-water standards, the cleanup standard will be the drinking-water standard
- For contaminants without drinking-water standards, the cleanup goal will be risk-based and site-specific

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## Ground-Water Cleanup Standards or Goals

- The point of compliance for contaminants with drinking water standards is outside of any area where waste is managed (such as a capped lagoon)
- The point of compliance for contaminants with risk-based cleanup goals is site-specific and based upon potential exposure to the ground water

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## Soil Risks and Final Clean-Up Standard

- Risk-based corrective action (RBCA) standards and Superfund requirements based on contaminants attributable to Site operations
- Florida RBCA standards require less than one-in-a-million lifetime cancer risk
- Site-specific risk assessment for soil risks on and off-site under way

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## Soil Risks

- Primary risk drivers from Site soil are incidental ingestion and dermal contact
- October 2007 Soil Sampling Report Used for Onsite Risk Assessment
- Approach currently under development for off-site soils

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## Soil Standards

- On-site to be remediated to industrial standard (future industrial worker scenario)
- If necessary, Koppers off-site to be remediated to current land use (i.e. residential and commercial)

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## Site Reuse Possibilities

- If future use changes, EPA work with new developer to ensure residential protections
- Common occurrence where old industrial property converted to residential/mixed use

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## Site Reuse Examples

- Koppers Charleston Site is part of proposed 218-acre multi-use development Magnolia Park
- Three Superfund Sites included (Columbia Nitrogen and Ashepoo Phosphate Fertilizer Works)
- Current groundwater remediation taking place

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## Koppers Charleston

- Developer is including residential-level protections in design such as:
  - Backfilling areas
  - Vapor intrusion barriers
  - Engineered soil covers
  - NAPL System Recovery Modification/Relocation

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## Site Background Information

- Wood-Treating Operations Began, Early 1900's
- Koppers Purchased and Operated, 1940 through 1977
- Property Sold and Subdivided, 1978
- Beazer Acquired Koppers, 1989
- Final ROD Issued, 1998
- Remediation Started in 1999
- Handout for Planned Magnolia Project

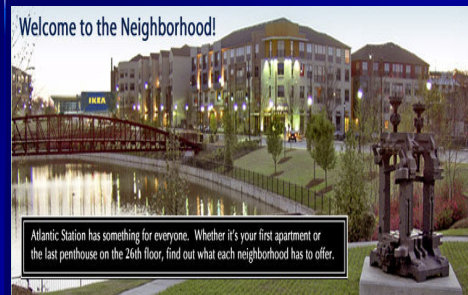
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## Atlantic Station

- Old Atlantic Steel Site in Atlanta, GA
- Developer installed upgraded remedy to enable mixed-use development
- Homes, shopping, office
- Fill dirt and capping through sidewalks, asphalt
- Active GW treatment system on-site

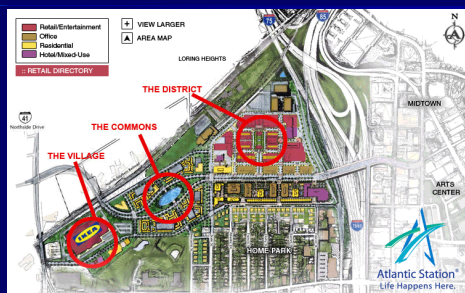
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## Atlantic Station



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## Atlantic Station



## Conclusion

- Interim groundwater measures implemented - September 2008
- Implement Koppers site-wide GW monitoring - July 2008
- Clean-up standards issued – July 2008

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## **Conclusion (continued)**

- Draft ROD Amendment – December 2008
- Public comment period – January 2009
- Final ROD Amendment issued – March 2009

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