



# Recommendations on USEPA Proposed Plan for Koppers Superfund Site

City of Gainesville / Alachua County  
Gainesville Regional Utilities  
and  
Alachua County Health Department

September 2010

## Introduction

- Purpose of Presentation
- LIT – Local Intergovernmental Team
  - City of Gainesville
  - GRU
  - Alachua County EPD
  - Outside Technical Experts
  - Alachua County Department of Health

## Presentation Topics

- Introduction (Fred Murry, City of Gainesville)
- LIT Goals (Fred Murry)
- Proposed Recommendations to EPA Proposed Plan
  - Groundwater/Subsurface (Rick Hutton, GRU)
  - Future Land Use (Ralph Hilliard, City of Gainesville)
  - Soils, Sediments and Other Offsite Issues  
(John Mousa, ACEPD) (Anthony Dennis, ACHD)
  - Stormwater (Stu Pearson, City of Gainesville)
- Recommended Actions

## Superfund Process Overview

- Site Investigations (on-going)
- Draft Feasibility Study – August 2009
- Final Feasibility Study – May 2010
- Proposed Plan – July 15, 2010
  - ***Comments due date: October 15, 2010***
- Record of Decision (ROD) ~ Nov 2010
- Consent Decree or Unilateral Administrative Order
- Remedial Design

## LIT's Schedule

- Public Meeting – August 17, 2010
  - Presented our preliminary comments
  - Received public input
  - Public encouraged to submit comments directly to EPA
- Presented preliminary proposed comments to City & County Commissions - August 30, 2010
- Present proposed final comments for approval by City & County Commissions – September 27 & 28, 2010
- Submit Comments to EPA (no later than) October 15, 2010

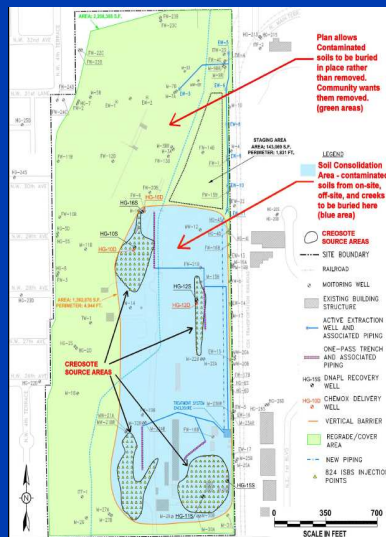
## LIT Goals

- 1. Protect Our Water Supply**
- 2. Protect Public Health & Environment**
  - Clean up On-site & Off-site Soils
  - Stop off-site migration of contamination
- 3. Foster Site Reuse**
  - Remediate consistent with Community Vision for site

## LIT Technical Team

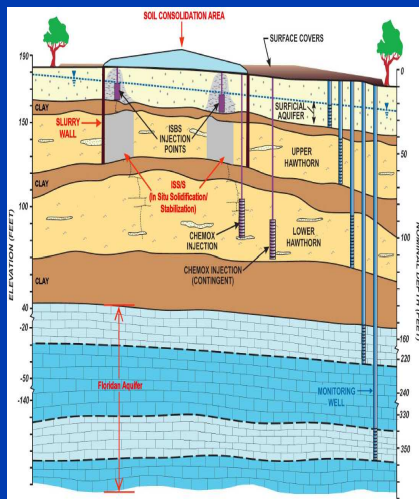
- Stanley Feenstra, Ph.D.- Applied Groundwater Technology
- Richard Jackson, Ph.D., P.E. - Interra
- Neil Thomson, Ph.D., P.E. – University of Waterloo
- John Herbert, P.G.
- Dean Williamson, P.E. - CH2M-Hill
- Rick Hutton, P.E. – GRU
- John Mousa, Ph.D. – ACEPD
- Robin Hallbourg, P.G. - ACEPD

## USEPA Proposed Remedy On-Site –Surface Soils



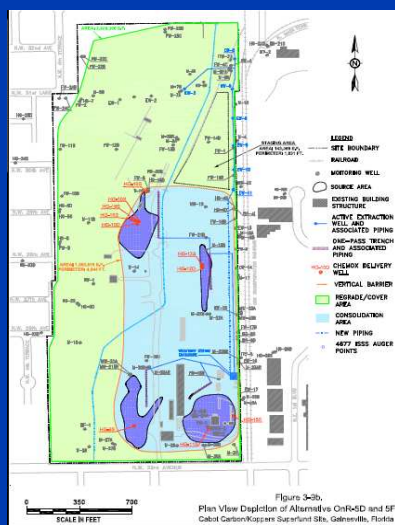
- Low permeability cap over source and soil consolidation area.
- Cover or excavate soils in non-source area to meet FDEP Commercial SCTLs and address GW leaching
- Move excavated soils (including off-site and contaminated sediments) to consolidation area
- Surface grade or cover 83 acres

## USEPA Proposed Remedy On-Site – Source Areas



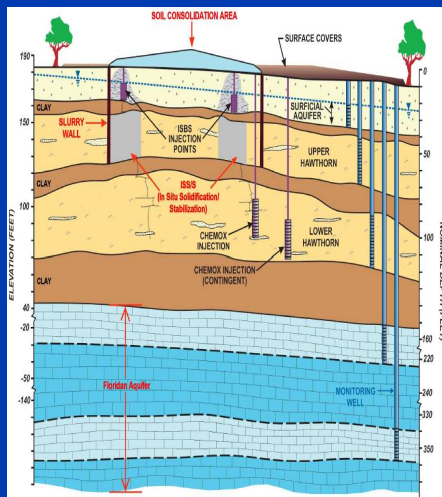
- Underground barrier wall around source areas
- Treat or solidify source areas
  - In-situ Biogeochemical Stabilization – **ISBS**
  - In-situ Soil Solidification Stabilization – **ISSS**
- Chemical treatment (ISBS and Chem-ox) in the Lower Hawthorn and on East Boundary

## USEPA Proposed Remedy On-Site – Source Areas



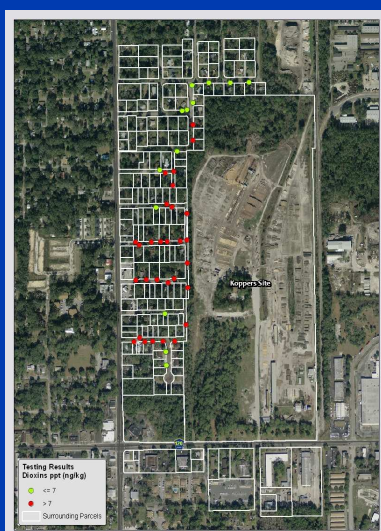
- Continue northern extraction system
- Continue horizontal collection drains in surficial aquifer near sources
- Expand groundwater monitoring
- Institutional controls

## USEPA Proposed Remedy Floridan Aquifer



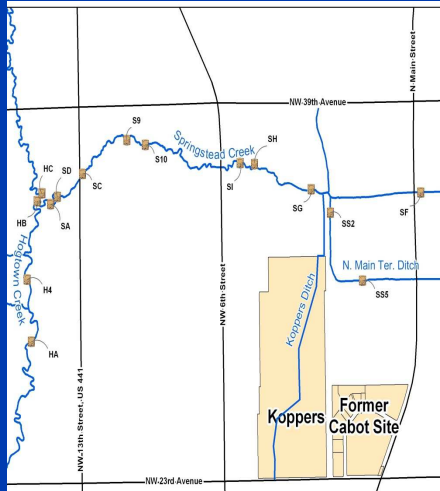
- Limited hydraulic containment – groundwater extraction and treatment of Floridan Aquifer
- Additional extraction wells as needed
- Monitored natural attenuation of contaminants

## USEPA Proposed Remedy Offsite Soils



- More Sampling to Delineate
- FDEP residential SCTLs on residential properties
- FDEP commercial SCTLs on commercial properties
- Choice of property owner:
  - Excavate contaminated soil and restore properties
  - Cover contaminated soils - engineered controls
  - Institutional controls to manage access and use of property
- Transport excavated off-site soil to on-site consolidation area

## USEPA Proposed Remedy Sediments in Creeks

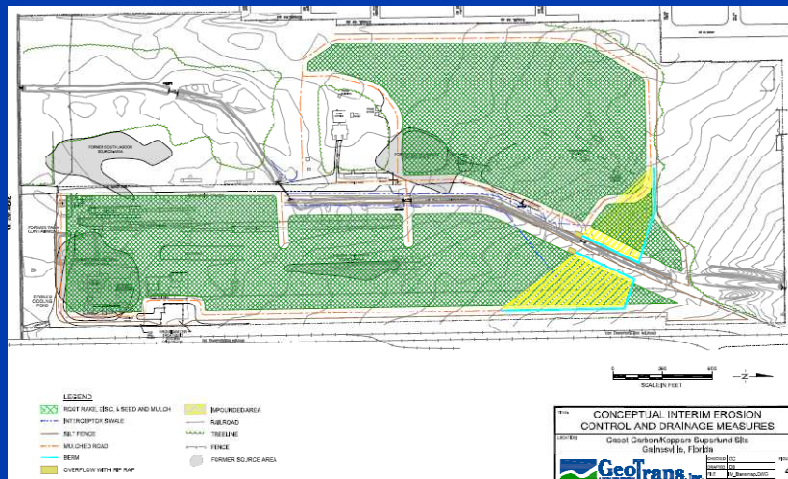


- Excavate sediments that exceed probable effects concentration (PEC)
- Monitored natural attenuation
- Transport excavated creek sediments and stormwater pond soil to consolidation area

## USEPA Proposed Remedy Stormwater

- Site stormwater management (OnR-5C)
  - Grading & contouring; runoff to pond(s)
  - Installation detention/retention pond(s)
  - Existing stormwater ditch
    - Replace with another ditch, or
    - Replace with other conveyance (pipe)

## Short-Term Interim Measures Stormwater



## GRU DNAPL Team

- Formed in 2004
- Internationally renowned, specialized expertise in wood treating & DNAPL sites
- Independent review of site, make technical recommendations & assist GRU in working with EPA, FDEP & ACEPD
  - Ensure appropriate actions taken to protect drinking water supply & groundwater
  - GRU, DNAPL Team, ACEPD & LIT collaboration

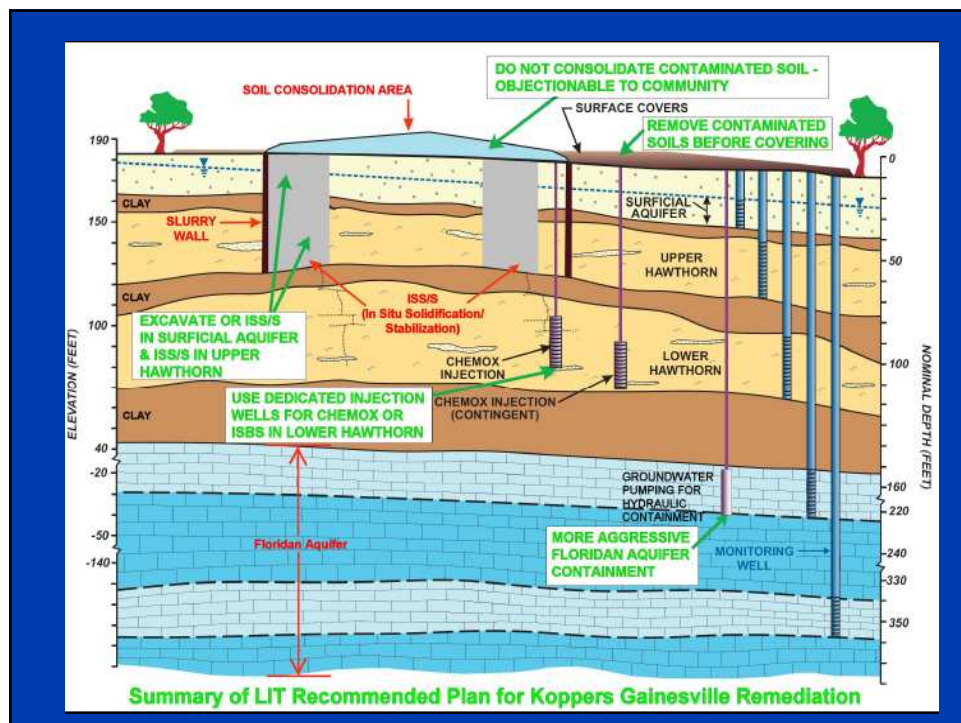
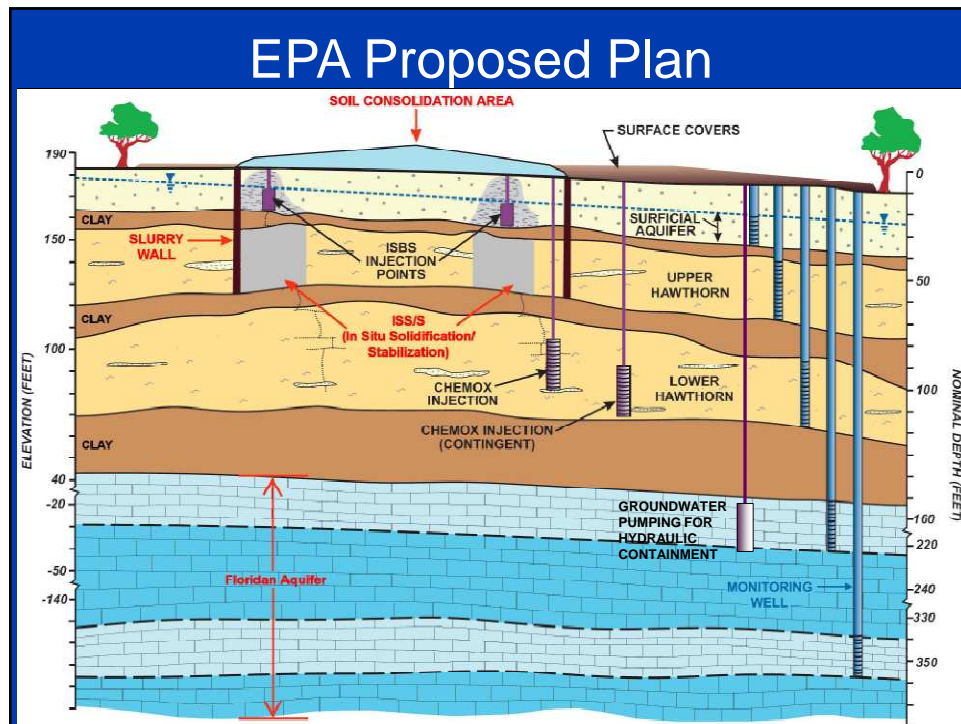


## LIT's Goals (Groundwater)

1. **Contain Floridan Aquifer Contamination**
  - *Critical due to limitations of other remedies*
2. **Remove or Immobilize Creosote DNAPL**
  - Reduce downward movement of creosote
  - Minimize on-going dissolution into groundwater
3. **Contain groundwater contamination in Surficial Aquifer & Upper Hawthorn**
4. **Long-term monitoring (especially in Floridan)**

Floridan Aquifer  
Naphthalene  
Concentrations





## LIT Recommendations Groundwater

### 1. Floridan Aquifer Hydraulic Containment

- LIT supports Plan's requirement for additional hydraulic containment as needed to meet state default cleanup criteria (GCTLs) outside source areas
- Hydraulic containment which has been initiated in NW corner of site is a positive step
- EPA should move forward with additional hydraulic containment
  - East property boundary
  - Interior
- ROD should contain more specific contingency criteria

## LIT Recommendations Groundwater

### 2. Site Description

- Proposed plan vastly understates contamination especially in Floridan Aquifer
- ROD should accurately describe the site contamination

### 3. Financial Assurance

- Financial assurance should be provided for the final remedy selected including the on-going operation of Floridan containment

## LIT Recommendations Groundwater

### 4. Floridan Aquifer Monitoring

- Extensive Floridan Aquifer Monitoring Network has been installed at Site
- Need additional wells off-site where concentrations exceed GCTLs at property boundary

## LIT Recommendations Groundwater

### 5. Creosote Source Area Treatment

- LIT supports in situ solidification (ISS/S) in Upper Hawthorn
- Should either excavate or ISS/S in surficial aquifer creosote source areas
- LIT does not support ISBS in surficial (or in Upper Hawthorn)
  - Not well demonstrated
  - Difficult to adequately distribute reagent at this site
  - No way to adequately measure success at this site
  - Would require multi-year pilot study

## LIT Recommendations Groundwater

### 6. Slurry Wall & Cap

- LIT supports slurry wall and continuation of surficial aquifer extraction
  - Prevent horizontal off-site migration of contamination in surficial and upper hawthorn
- Creosote exists east of site outside of the footprint of the proposed slurry wall
  - Need to include in slurry wall or otherwise address

## LIT Recommendations Groundwater

### 7. Lower Hawthorn Group Creosote Treatment

- LIT supports ISBS or Chemox in Lower Hawthorn
  - Too deep for ISS/S or excavation
  - Uncertainty in effectiveness
- Should use dedicated injection wells as part of an overall plan, rather than only injecting into monitoring wells

## LIT Recommendations Groundwater

### 8. Site Characterization

- LIT supports plan requirement for more wells in Surficial and Hawthorn to better map out contamination
- Unclear if this will include Lower Hawthorn
- Need more testing to map out creosote areas in Surficial, Upper & Lower Hawthorn
- Existing Lower Hawthorn wells should be retained, or at least replaced (if they get destroyed during remediation)

## LIT Recommendations Groundwater

### 9. Retain Ability to Treat source zones in future

- Cap &/or future structures should not limit access to treat DNAPL source zones

## LIT Recommendations Future Land Use -- On-Site

10. USEPA plan has not been sufficiently coordinated with City and local stakeholders. **Additional coordination with City of Gainesville and local stakeholders is needed regarding future land use.**

Remedy should meet the following criteria:

- Based on redevelopment vision;
- Step down in land use types from east to west on the site;
- At a minimum, clean-up soils in the western 300 feet of property to allow redevelopment with any residential land use category that is consistent with adjacent residential land use;
- Industrial re-use should not be considered an appropriate land use.

## LIT Recommendations Surface Soils

11. Landfilling of contaminated soils and sediments in large on-site soil consolidation area is unacceptable to community and limits future redevelopment. USEPA did not evaluate off-site disposal of excavated on-site and offsite surface soils.

- Eliminate on-site consolidation of contaminated surface soils (on-site, off-site and creek sediments).
- Amend the FS to provide costs for and implement offsite disposal of excavated on-site and off-site soils and sediments.
- Do not bring offsite contaminated soils and sediments on site



## LIT Recommendations Surface Soils

12. Surface soil remedy for area outside of containment area is vague; cannot determine where contaminated surface soils on-site will be excavated or just covered up.
  - Provide more detail in amended FS or ROD on specific actions to be taken to remediate on-site soils outside of containment area.
  - Specifically address remediation of elevated contamination areas in northern wooded area.

## LIT Recommendations Surface Soils

13. **USEPA should maximize and prioritize removal and not covering of contaminated soils outside of source containment area.**
  - Provide separate costs in amended FS for removal of contaminated surface soils outside of containment area that are above FDEP residential and commercial SCTLs.
  - Remove surface soils outside of containment area exceeding FDEP SCTLs or FDEP Leachability SCTLs down to the water table.
  - Target FDEP Residential SCTLs as preferred alternative in areas outside of source containment area.



## Recommendations Surface Soils

14. Other potential source areas outside of containment area may exist.

- Commit to screen site for additional source areas (including buried drums) and conduct appropriate removal or treatment.

## LIT Recommendations Offsite Surface Soils

15. Offsite delineation of contamination is incomplete.



- Support – FDEP Residential SCTLs for offsite residential properties.
- Conduct additional offsite sampling beyond FDEP SCTL limits (example- north of site).
- Include residential and commercial properties west of 6<sup>th</sup> Street until FDEP SCTLs are met.
- Expedite delineation and remediation of offsite areas.

## LIT Recommendations Offsite Surface Soils

16. USEPA should restrict use of engineering or institutional controls to address offsite soil contamination due to long term safety concerns.

## LIT Recommendations Other Offsite Impacts

17. USEPA should address citizen concerns about potential indoor contamination issue in structures within delineated contaminated area.
18. USEPA should identify and facilitate mobilization of resources to address adverse health effects of individuals via door-to-door health study in neighborhood affected by Koppers contaminants.

## LIT Recommendations Other Offsite Impacts

19. Relocation assistance should be provided for neighboring residents during on-site and offsite remediation.

USEPA should calculate the lost property value of homes impacted by contamination and provide compensation to property owners

## LIT Recommendations Stormwater

20. The Proposed Plan omits: strategy, design criteria, essential site data and final cover landscaping descriptions.

- EPA should include tentative solutions for managing off-site and on-site stormwater flows.
- EPA should include all site stormwater criteria.

## LIT Recommendations Sediment and Creeks

21. Creek clean-up proposed only for those areas where contaminants exceed benthic Probable Effects Concentrations (PEC).

-- Exposed sediments in Creek potentially pose human health risk.

- Creek sediments should be excavated to the more stringent of the FDEP Residential SCTL or the PEC for PAHs, cPAHs, and dioxin.
- Creek sediments should be disposed of offsite and not in on site consolidation area.

## LIT Recommendations Additional Comments

**22. The USEPA should make available in the local repository a complete Site file of project records and documents.**

- **Additional documents identified by citizens and LIT (in attached CD) should be added to the Administrative Record (AR) File by USEPA.**

(LIT proposes to compile relevant documents requested for inclusion in the AR with input from citizens and will attach these with our recommendations to USEPA)

## Requested Actions

1. Authorize LIT staff to compile electronic file of relevant documents requested to be included in Administrative Record and submit to USEPA with Final LIT Recommendations by October 15, 2010.
2. City Commission -- Authorize the Mayor to transmit the LIT recommendations to USEPA before October 15, 2010.

Or

County Commission – Authorize the Chair to transmit the LIT recommendations to USEPA before October 15, 2010.



## Public Comment



- Public also encouraged to submit comments directly to EPA:

Scott Miller, Remedial Project Manager  
Superfund Division, Superfund Remedial Branch  
USEPA Region 4  
61 Forsyth Street, SW  
Atlanta, GA 30303