Phase I and Phase II Environmental Site Assessments

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Brownfields/Voluntary Cleanup Program
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Environmental Site Assessments (ESA)

- Evaluates possible environmental conditions for real estate transactions
- Phase I: A review of records, a site inspection, and interviews with people who have knowledge of the site
- Phase II: Depends on the results of the Phase I. Limited sampling and lab analysis to confirm the presence of hazardous materials or petroleum products
Why Do You Want an ESA?

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also referred to as Superfund)

- All Appropriate Inquiry vs. “But I got a good deal.”
Liability Protections

• Innocent Landowners
• Contiguous Property Owners
• Bona Fide Prospective Purchasers
The Standards

- American Society for Testing and Materials International (ASTM)
- Phase I: E1527-13
- Phase II: E1903-11
- Conducted by an Environmental Professional
We Can Do The Assessment For You

Brownfields Assessment Program

- Available to communities and non-profits
- Communities can partner with private investor
- Provided as a service under a statewide contract. No cost to the recipient
- Includes area-wide inventories
- Provides an explanation of the results and recommendations for a path forward
- Applications can be found at www.missouribrownfields.com under “Brownfields Assessments”
Phase I Environmental Site Assessment

• Process to determine if a parcel of real property has Recognized Environmental Conditions (RECs)

• REC: The presence or likely presence of any hazardous substances or petroleum products on a property
Recognized Environmental Conditions

- A release to the environment
- Conditions indicative of a release to the environment
- Conditions that pose a material threat of a future release to the environment
Recognized Environmental Conditions

- **Historical REC (HREC):** Cleaned up with no restrictions
- **Controlled REC (CREC):** Cleaned up with restrictions
- **De minimis conditions:** Not significant enough to be a threat to human health or the environment
What is Considered a REC?

- Petroleum Products
- Dry Cleaning Solvents
- Pesticides
What is Considered a REC?

Transformers

Landfills/Dumps

Salvage/Junk Yards
What Things Aren’t RECs?

Septic Tanks

Bird Droppings

Mold
Likely Places for REC}s
The Phase I ESA Report

• **Narrative**: Site description, records review, site reconnaissance, interviews, findings & conclusions, deviations, signature and qualifications of Environmental Professional

• **Appendices**: Site map, photos, historic photos/maps, topographical maps, regulatory records documentation, interview documentation
Historical Records

• Back to first development or 1940
• Aerial photos
• Fire insurance maps
• Street directories
• Property taxes, land titles
• Building departments
• Topographic Maps
Environmental Records

• Federal, State, and Local regulatory records or any records of environmental information or physical setting information

• Usually obtained through third-party companies who compile records based on a radius of a selected location
Interviews

- Site manager
- Occupants
- Past owners, operators, or occupants
- Neighboring properties
- State & local governments and agencies
Example: The Former Folgers Coffee Company
RECs identified by the Phase I ESA
Phase II ESA

- Developed from the REC\text{s} identified in the Phase I ESA
- Samples collected, though not exhaustive
Phase II ESA Sampling

- Surficial Soil Samples
- Subsurface Soil Samples
- Surface Water Samples
- Groundwater Samples
- Vapor Samples
- Asbestos-Containing Material (ACM)
- Lead-Based Paint (LBP)
The Phase II ESA Report

- Narrative
  - Background Info
  - Work Performed
  - Results of Investigation
  - Interpretations/Conclusions
- Tables
- Figures
- Appendices
  - Site Photos
  - Boring Logs/Monitoring Well Construction
  - Lab Data with Quality Control Information
Phase II ESA
Soil Boring Map

- APPROXIMATE BORING LOCATION
- APPROXIMATE SOIL GAS LOCATION
Phase II ESA Addendum

• Further investigation of releases found during Phase II ESA
• Determine the extent of releases so that clean up decisions can be made
Phase I → Phase II → Phase II Addendum

- Former service station
- Phase I showed RECs associated with the former service station and a former dry cleaners next door
- Phase II found evidence of releases and USTs
- Phase II Addendums conducted to remove USTs and determine extent of releases
- 4 USTs found
- Asbestos and lead paint investigation also conducted
Phase I and Phase II Environmental Site Assessment (ESA) Process. Are there any Recognized Environmental Conditions (RECs)?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Phase II ESA needed</td>
<td>Phase II ESA is not needed</td>
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Contamination

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<tr>
<th>Above Lowest Cleanup Levels</th>
<th>Below Lowest Cleanup Levels</th>
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<tr>
<td>Phase II ESA Addendum is needed or enrollment in the BVCP is recommended</td>
<td>No further investigation is needed.</td>
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Contacts

• Website:  www.missouribrownfields.com

• Call Catherine Jones @ 573-526-4725

• Call and talk to a BVCP Project Manager @ 573-526-8913
Thank You

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