

Brownfields Prevention Transformed

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Region 5 Message

- Municipalities can take **easy** steps toward preventing Brownfields by being proactive.
- By helping companies in your community, it is possible to identify potential problems and intervene before sites develop into Brownfields.
- Prevention partners activities lead to project benefits.

Steps Local Governments can consider:

- **Incorporate Brownfields Prevention into inspections;**
- **Incorporate Brownfields Prevention into your assessment of properties;**
- **Consider using ordinances;**
- **Work with your State agency; and**
- **Incorporate Brownfields Prevention in your Comprehensive Plan**

Desired Results

- **Local governments will be exposed to ideas that can be used to help manufactures and commercial enterprises leave a cleaner footprint on their cities, counties and villages.**
- **This can be accomplished by building on lessons learned from peers**

Region 5 Challenge

- Embrace this initiative
- Add to the dialogue
- Become a partner



Speakers

- Patrick Burke, Economic Development Manager, Moline, Illinois
- Brian Porter, Terracon Consultants, Inc.

Breaking the Brownfields Cycle:

Incorporating Sustainable Practices Into Municipal Operations and Environmental Site Assessments

Presented By:

Patrick Burke, City of Moline

Brian Porter, PE, Terracon



Part 1: Incorporating Sustainable Practices Into Municipal Operations

Patrick Burke, City of Moline



Sustainable Practices for Municipal Operations

- Reduce Municipal Expenditures
- Conserve Energy
- Reduce Pollution

Moline's Sustainability Efforts

- Green Initiatives Committee
- Curbside Recycling
- E85 Fleet
- LEED® Certified Police Station
- Online Payment and Paperless Council Agendas
- Brownfield Redevelopment

Green Initiatives Committee



- Created April 2007
- Energy Conservation
- Increase Operating Efficiency
- Reduce Waste

Curbside Recycling



- Mandatory
- March 31, 2008
- 500 Tons recycled
- Ninety Percent Participation Rate
- Sixteen Percent of Total Waste Stream Recycled

E85 Fleet



- Flex Fuel Vehicles
- Soy Biodiesel
- Hybrid Vehicles
- Top 100 Fleets in North America

LEED® Certified Police Station



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Online Payment and Paperless Council Agendas



- Online services have resulted in reduced:
 - Staffing (three positions)
 - Paper usage
 - Staff Time
- Customer service has improved

Brownfield Redevelopment



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Former Bus Transfer Site



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El Mercado on Fifth Avenue



Former Industrial Site



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Kone Tower



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Part 2: Incorporating Sustainable Practices Into Environmental Site Assessments

Brian Porter, PE, Terracon

Brownfields Under “The Act”

“With certain legal exclusions and additions, the term ‘brownfield site’ means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.”

Small Business Liability Relief and Brownfields Revitalization Act
Public Law 107-118, January 11, 2002

Liability Protection Under the Act

- Innocent Landowner, Contiguous Property Owner, Bona Fide Prospective Purchaser
- Each requires conducting 'all appropriate inquiry' and accepting "Continuing Obligations" to obtain the liability protection
- As always, our courts will ultimately determine if landowners met the conditions of a liability defense

EPA Enforcement Guidance*

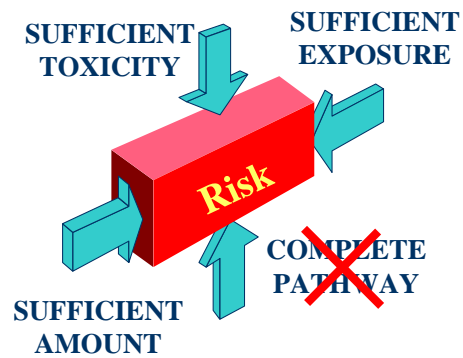
- Threshold Criteria
 - Party conducted All Appropriate Inquiry
 - 40 Code of Federal Regulations Part 312 after November 1, 2006
 - Party was not affiliated with liable parties
- Continuing Obligations to maintain defense
 - Take reasonable steps with respect to releases
 - Provide full cooperation, assistance and access to persons authorized to conduct response actions
 - Compliance with information requests and subpoenas
 - Provide legally required notices
 - **Comply with land use restrictions & institutional controls**

Land Use Controls (LUCs)

- Land use controls are not defined in the Brownfields Act
- Terms vary among agencies, ASTM identifies them as Activity and Use Limitations (AULs)
- Land use controls are property-specific activities that physically or administratively prevent exposure to residual chemicals in order to avoid unacceptable risk.

Land Use Controls (LUCs) Interrupt Risk Pathways

- They clean up nothing
- You must have all 4 elements to have unacceptable risk condition
- Conditions pose no harm as long as the LUCs remain in effect...



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NO = ACCEPTABLE

Land Use Controls (LUCs) = \$\$\$

- Whether engineered or institutional, land use controls are a deferral of current environmental cost of remedy into the future
- They preserve current development and construction capital
- They control chemical risk and exposure, but they do nothing to clean up contaminants

Land Use Controls (LUCs) are a Condition of Maintaining a Liability Defense

- The bona fide prospective purchaser, contiguous property owner, and innocent landowner provisions all require compliance with the following ongoing obligations.
 - The person is in compliance with any land use restrictions established or relied on in connection with the response action.
 - The person does not impede the effectiveness or integrity of any institutional control employed in connection with a response action.

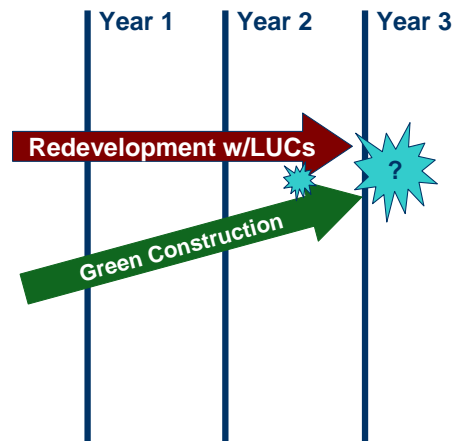
Brownfields Affect Green Design

Green Building Design

- Design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in five broad areas.
 - Sustainable site planning
 - Safeguarding water and water efficiency
 - Energy efficiency and renewable energy
 - Conservation of materials and resources
 - Indoor environmental quality

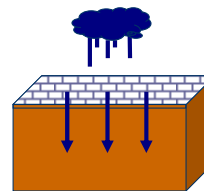
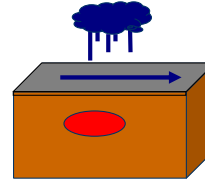
Are “Green” Design and Land Use Controls Compatible?

- Brownfields redevelopment using LUCs to preserve capital is well advanced.
- The independently and rapidly developing path of green construction is gaining velocity.
- Unintended consequences have occurred with green programs.
- Problems can be avoided if the pathways are considered jointly and early in the Brownfields planning.



Example of Conflict Between LUCs and Green Design

- Some types of LUCs prevent exposure to contaminants by creating barriers to chemicals “in the ground.”
 - Example: An **impermeable** parking lot prevents storm water from infiltrating through contaminated soils and affecting groundwater quality.
- Sustainable design concepts (e.g., low-impact design) rely on a connection between the surface and the subsurface.
 - Example: A parking lot constructed of **permeable** pavement allows storm water infiltration and reduces surface water contamination.



Moline is Using a Concurrent Approach

- Assessments performed using the City's EPA Assessment Grant will evaluate multiple redevelopment options and their trade-offs.
 - Traditional redevelopment using LUCs
 - Green redevelopment
 - Addressing these issues early reduces the probability of conflict later in the project.

Moline's Brownfield Grant

- \$200,000 Assessment Grant for Hazardous Substances
 - October 2006 to September 2009
- Brownfields Site Prioritization Study
 - 151 Potential sites
 - Priority sites, some near the proposed Western Illinois University Quad City Riverfront Campus

Proposed Western Illinois University Quad City Riverfront Campus

- Background
 - Gift of land and facilities from John Deere and Company
 - 20 Acres, former Deere Technology Center
- Community Need
 - The Quad Cities is one of the country's largest metropolitan areas without a public 4-year university

Proposed Western Illinois University Quad City Riverfront Campus



Proposed Western Illinois University Quad City Riverfront Campus

- Redevelopment-Related LEED® Points Anticipated for the Project
 - SS2 1 Point: Development Density and Community Connectivity
 - SS3 1 Point: Brownfield Redevelopment
 - SS5.1 1 Point: Site Development – Protect or Restore Habitat
 - SS6.1 1 Point: Storm water Design – Quantity Control
 - SS6.2 1 Point: Storm water Design – Quality Control
 - WE1.1 1 Point: Water Efficient Landscaping
 - WE1.2 1 Point: Water Efficient Landscaping, Additional Credit

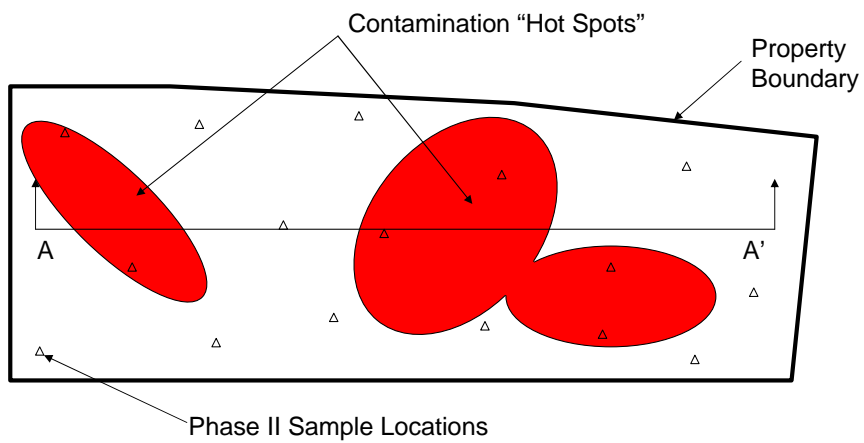
Proposed Western Illinois University Quad City Riverfront Campus

- Environmental Sustainability and Social Responsibility are part of the Master Plan
 - Storm water runoff management, including natural collection and holding systems, permeable paving, and indigenous planting
 - Treat existing drainage channels as natural waterways
 - Riverside Park as part of a green “front door”
 - Continuous, attractive, and safe pedestrian walkway system

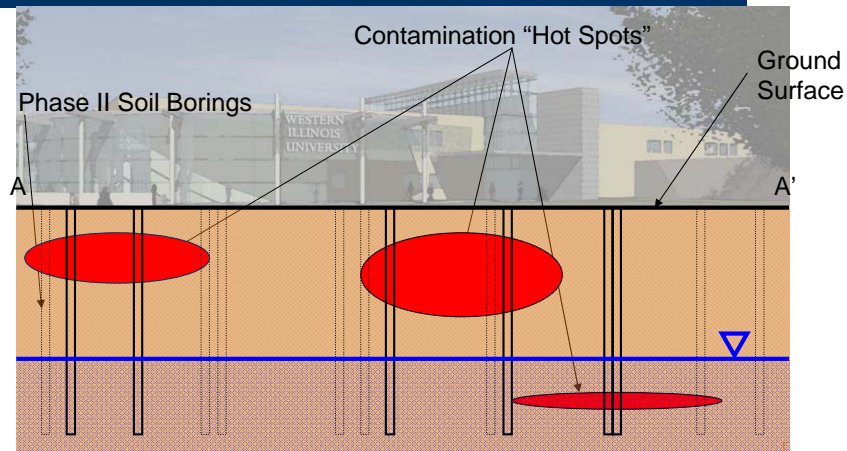
Proposed Western Illinois University Quad City Riverfront Campus



Hypothetical Phase II Assessment Results – Plan View

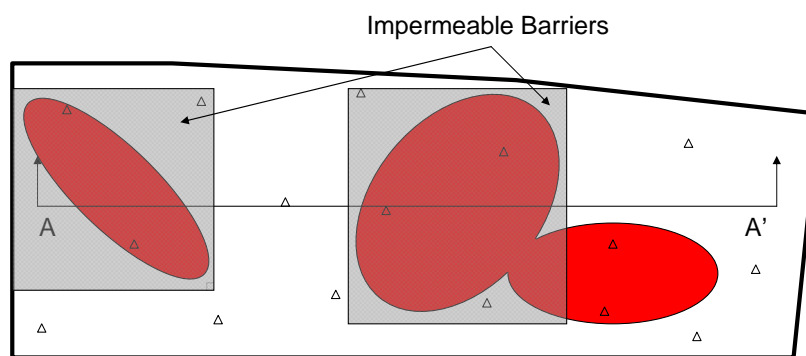


Hypothetical Phase II Assessment Results – Profile

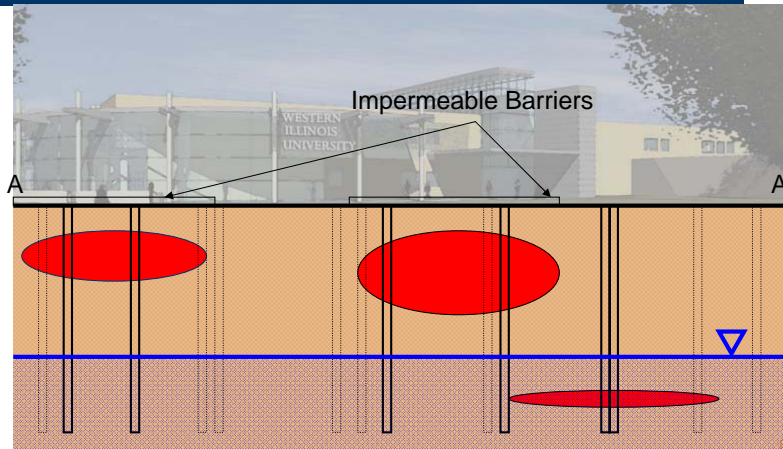


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“Traditional” Brownfields Reuse – Plan View

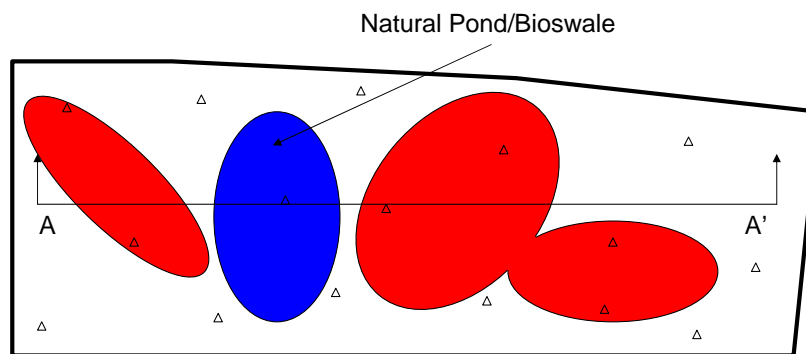


“Traditional” Brownfields Reuse – Profile

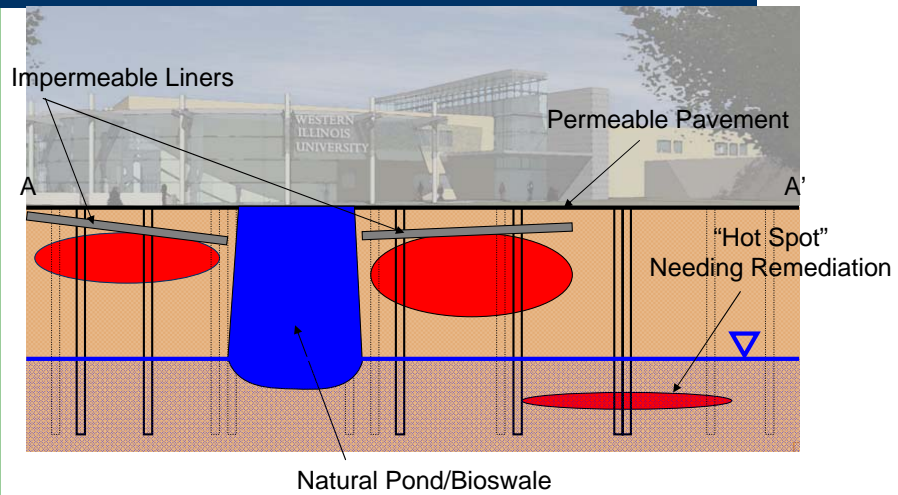


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“Green” Brownfields Reuse – Plan View



“Green” Brownfields Reuse – Profile



Evaluation of Redevelopment Alternatives and Preliminary Analysis of Brownfields Cleanup Alternatives (ABCA)

- This document will evaluate different options for cleanup, if needed, and future redevelopment based on the Phase II ESA conditions.
- This document will consider likely closure scenarios under Illinois' voluntary program, the cost and schedule to perform various activities required for closure, the impact of these activities on potential LEED® certification, geotechnical considerations, and other redevelopment factors.
- Using this document as an outline for discussion, the City can evaluate site conditions and contemplate closure alternatives within the context of the entire redevelopment project.

Thank You for Your Time!

Questions and Discussion

After viewing the links to additional resources, please complete our online feedback form.



[Links to Additional Resources](#)

[Feedback Form](#)