Overview of Brownfields and GSI

Elizabeth Limbrick, LSRP



What is a Brownfield?

"Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence <u>or</u> <u>potential presence</u> of a hazardous substance, pollutant, or contaminant." EPA





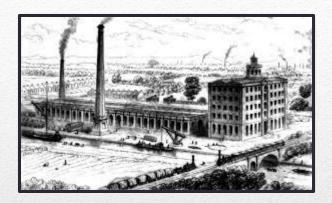


estimated 450,000 brownfields in the US



Brownfields

Industrial chemicals and wastes, abandoned factories, buried wastes











Newer Brownfield Sites

Not just the industries of the 19th century...







How Do we Know it's a Brownfield Site?

Is the site vacant or less productive than it used to be or should be?

Does the site have an industrial past?

Is there knowledge or a perception of environmental contamination?

Ask the Professional!



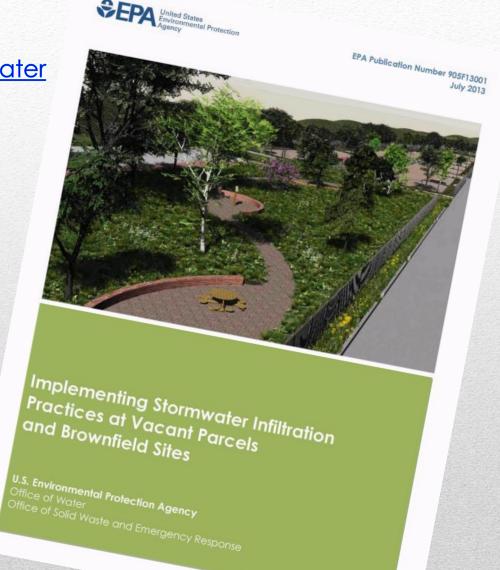
So why do I want to put GSI on a BF site?



USEPA Guidance

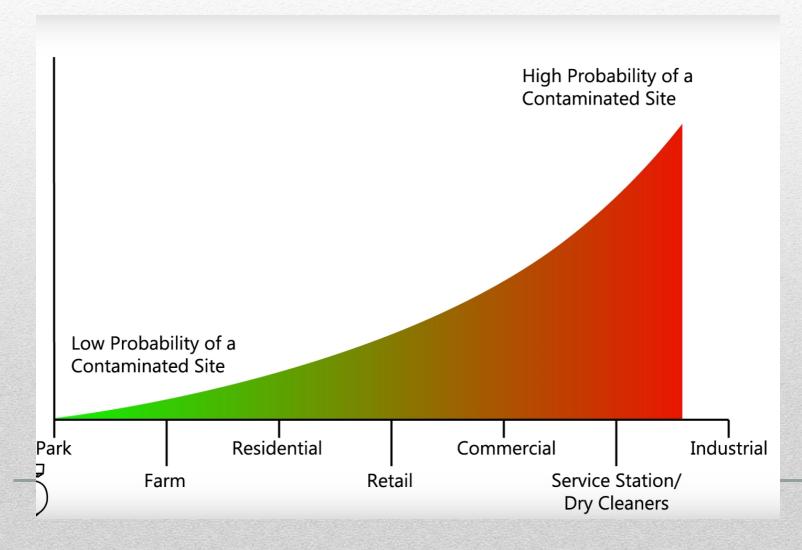
USEPA's July 2013
"Implementing Stormwater
Infiltration Practices at
Vacant Parcels and

Brownfields Sites"

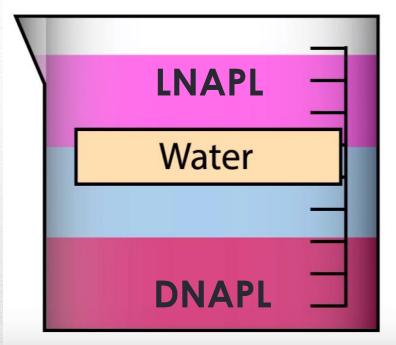


Environmental Investigation

Conduct an Environmental Investigation (Phase I)

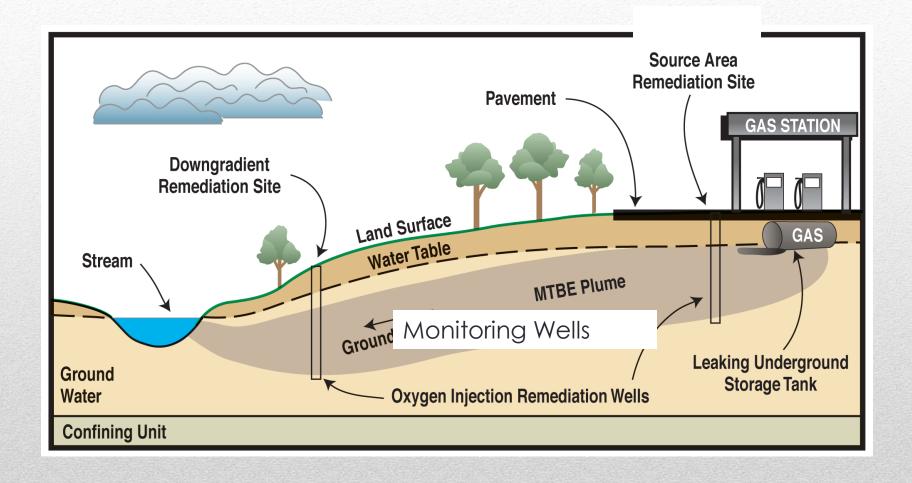


Watch out for LNAPL & DNAPL





Look for Groundwater Contamination



Find a Clean Portion of the Site

When approaching a contaminated site, you may want to look for parts of the property that are impacted by the contamination

When Infiltration is not an option

Rain Garden with Relief Drain



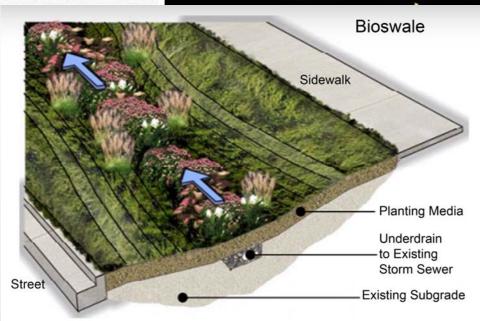




Photo Credit: TetraTech, Green Streetscapes Study 19 Focus: HOPE Oakman East Project, Detroit MI. **Source:** https://www.epa.gov/sites/production/files/2015-09/documents/streetscapes_final_7_31_09.pdf

Practices at Vacant Parcels and Brownfield Sites." July 2013. EPA Publication Number 905F1300

Example of GSI on a Brownfield - Camden, NJ



Source: EnviroSure Inc, RIW South Waterfront Service Station, September 2009 Source: CamdenSmart http://www.ccmua.org/?page_id=2

Thank you! Contact Information

Elizabeth Limbrick
NJIT 973.596.5519
limbrick@njit.edu



http://www.njit.edu/tab/ TAB Hotline: (973-642-4165) tab@njit.edu