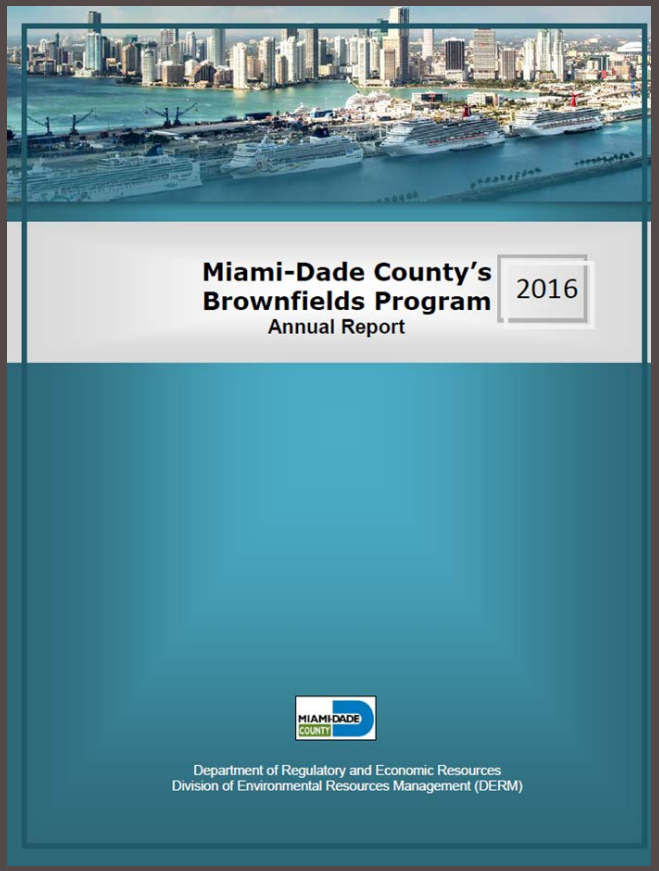
COMMUNITY MEETING FOR NW 58TH STREET GREEN REUSE AREA CORRIDOR DESIGNATION PURSUANT TO SECTION 376.80(2)(A), FLORIDA STATUTES (2017)



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Doral City Hall
Doral, FL
October 18, 2018

Part I: Overview of Florida and U.S. Brownfield Program

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM

HISTORICALLY – A BLEAK PICTURE CAST IN BLACK AND WHITE

FORMER TECO PEOPLES GAS SYSTEM SITE
NE 159TH STREET & WEST DIXIE HIGHWAY, MIAMI BEACH

- Former MGP Site
- 17.8 Acres
- Sold for $21.14 million in January ’17
- Developments rights for up to 2,300 residential units and 2.5 million square ft of commercial space

INDUSTRY NEWS › COMMERCIAL REAL ESTATE

Formerly contaminated site in Miami-Dade sells to developer for $21M

Jan 23, 2017, 3:00pm EST **Updated** Jan 23, 2017, 4:31pm EST

INDUSTRIES & TAGS Commercial Real Estate, Construction

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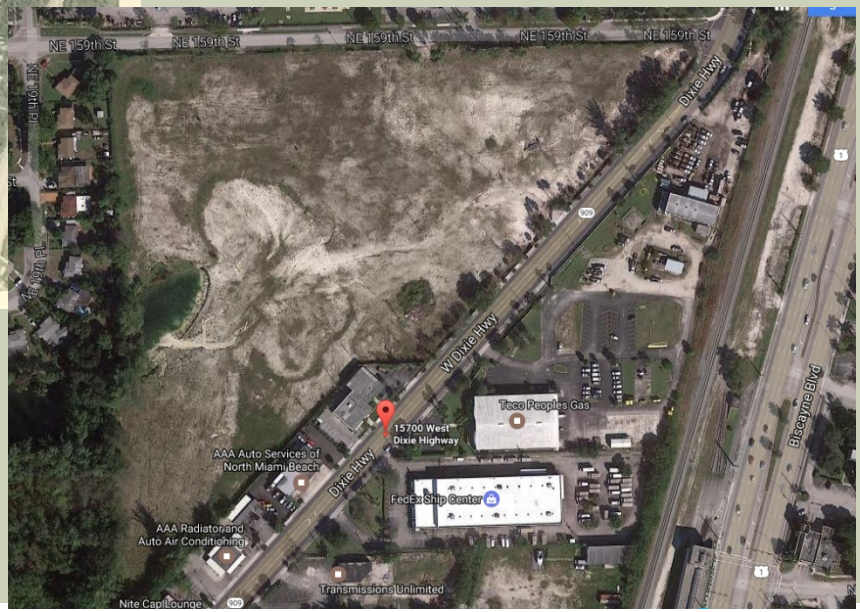
Brian Bandell
Senior Reporter
South Florida Business Journal

A development site in North Miami Beach that underwent remediation to rid it of contamination has sold for $21.14 million.

Attorneys Kerry E. Rosenthal, Eduardo Rasco, Heather A. Scott and Melissa Groisman, all of Rosenthal Rosenthal Rasco, said they represented the seller in the deal for the 17.8-acre site at 15780 W. Dixie Highway. It was sold by Moore 77 LLC, managed by Vitali Rosenthal, to New North Equities, managed by Hector Mendez in Aventura and Gabriel Boano in Bay Harbor Islands. The buyer received a $9.15 million mortgage from New Wave Loans Residential.



RELATED CONTENT

Crane Watch: Mapping out the major development projects

OP-ED COLUMNIST

The Power Inversion

By DAVID BROOKS
Published: June 6, 2013 | 126 Comments

There's a weird calm around Washington these days. The Obama administration only has a year before the lame-duck status sets in. Yet you don't get a sense of urgency. White House officials seem busy running the government, but they are not filling the public space with a transformational second-term agenda.

Enlarge This Image

Josh Haner/The New York Times
David Brooks

Go to Columnist Page »

Republican leaders aren't offering bold plans either. They seem more worried about offending pieces of the current coalition than in attracting new ones.

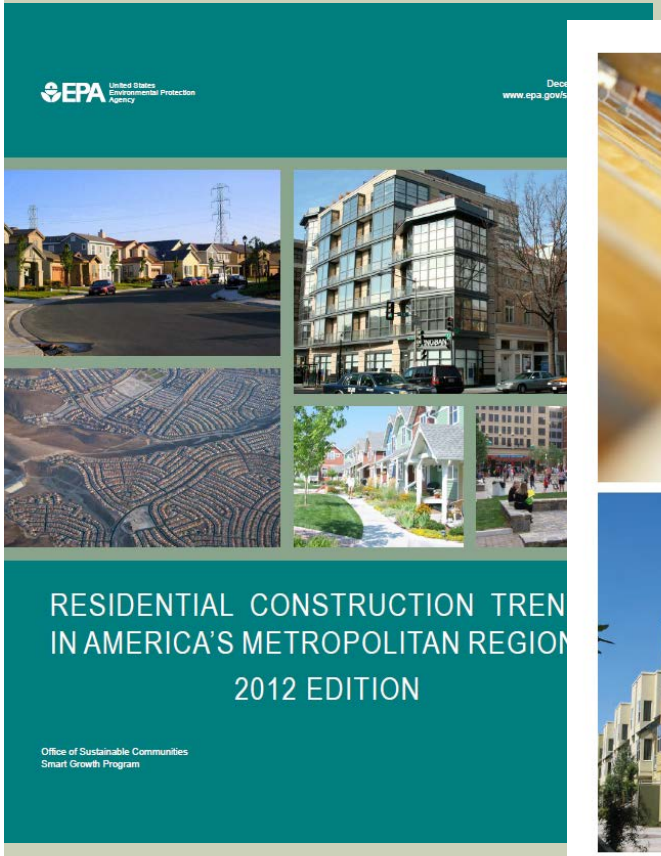
The heart of the problem is that nobody wants to champion proposals that have no chance of passing. Washington is immobilized by interest groups, polarization and a lack of federal dollars.

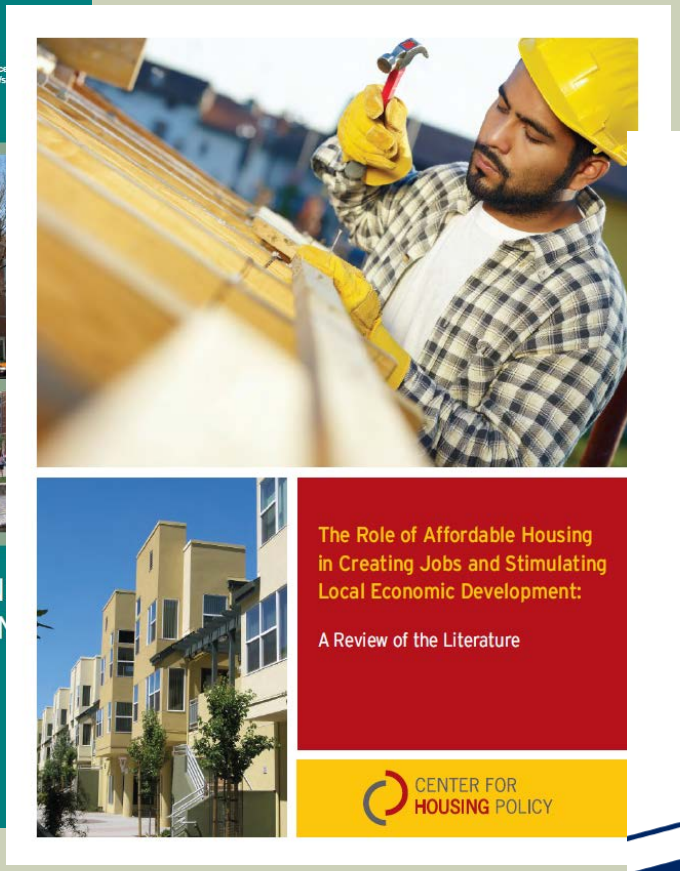
In their new book, "The Metropolitan Revolution," Bruce Katz and Jennifer Bradley of the Brookings Institution argue that Washington paralysis is already leading to a power inversion. As the federal government becomes less energetic, city governments become more so.

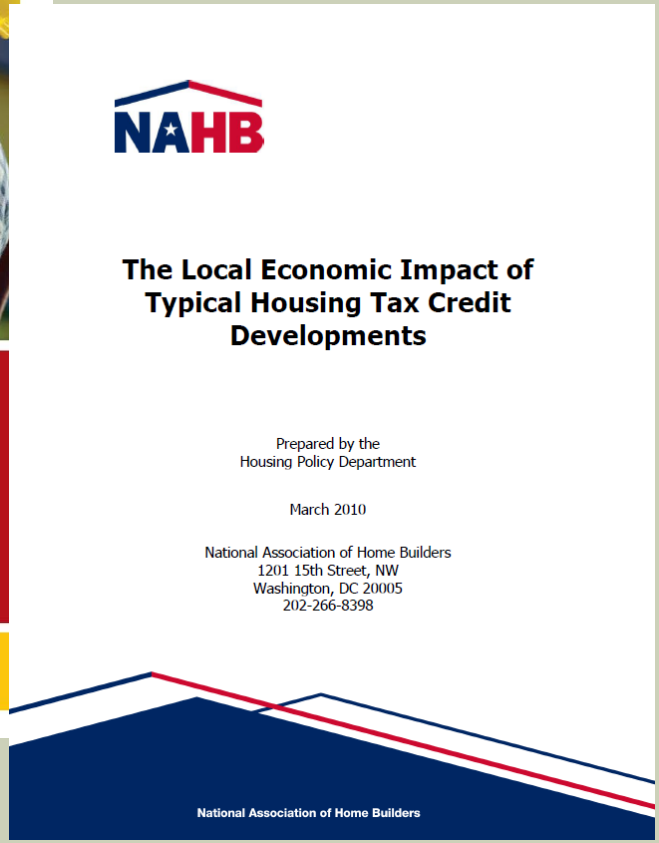
"Katz and Bradley describe a country that is segmenting slightly into divergent city-states. Demographically, society is clustering. In an era when the nuclear two-parent family was the key demographic unit, it made sense to think of America as a suburban economy with common needs. But now two-parent nuclear families account for only a fifth of all households. The young, the old and the single make up a huge slice of the population, and they flock to density."

"In their new book, 'The Metropolitan Revolution,' Bruce Katz and Jennifer Bradley of the Brookings Institution argue that Washington paralysis is already leading to a power inversion. As the federal government becomes less energetic, city governments become more so."

INFILL CLUSTERING AS BROWNFIELDS POLICY DRIVER: DEMOGRAPHIC PATTERNS AND ECONOMIC METRICS







Brownfields Value Proposition

- Ability to unlock and access intrinsic use, location and demographics value of site (i.e, buy low/exit high)
  - Creates both situational and "existential" advantages
- Reuse provides funding mechanism for cleanup
- Broad array of financial and regulatory incentives
- Engine for accelerating contamination restoration, natural resource preservation, and public health protection
- Powerful catalyst for broader redevelopment efforts
- Sustainability jump-off point
- Stability and security for private and public capital
- Historically, high level of support from developers, lenders, businesses, community based organizations, environmental justice and public health advocates, and neighborhood residents
- Can generate multiple dividends of "found equity" for non-principal stakeholders
  - "Found equity" can be both financial and non-financial in nature
- Revenue enhancement and "headache reduction" opportunities for local governments

BROWNFIELD WINDSHIELD SURVEY

- Local Program Flexibility & Resources
  - Miami-Dade County Guidance Documents & Proprietary Resources
  - Broward County Guidance Documents
- Beneficiaries of Certain Regulatory & Market Trends
  - Real Estate Development
    - Affordable Housing Sector
    - Market Rate Multifamily
    - Industrial Sector
    - Developers favor very large and very small canvases (golf courses and corner gas stations in play)
  - Contamination Reporting
    - Galvano Bill (SB 532)/Peters Bill (HB 1065)
  - Incorporation of Redevelopment as Criteria for Petroleum Restoration Funding
    - Additional $5 million annually for otherwise eligible sites being redeveloped
    - Up to $70,000 for site assessment alone (SB 1018)

AMB CODINA BEACON LAKES, LLC
NW 117TH AVENUE & NW 25TH STREET, MIAMI-DADE COUNTY

AMB Codina Beacon Lakes, LLC
BSRA ID# 130201001
Executed November 24, 2003
Address: NW 117th Ave and NW 25th Street, Miami
DERM HWR-569/File-10101
SRCO May 9, 2012

On May 9, 2012, a Site Rehabilitation Completion Order was issued for the AMB Codina Beacon Lakes, LLC site, for which a BSRA was executed on November 24, 2003. Located in the vicinity of NW 117th Avenue and NW 25th Street, the site was contaminated with Polycyclic Aromatic Hydrocarbons, Total Recoverable Petroleum Hydrocarbons and arsenic as a result of the former mixing of soil and horse manure at the site and the dumping of construction and demolition debris. Solid waste was removed and source removal was conducted. The redevelopment consists of a business park with warehouses, office buildings and retail space.

Beacon Lakes (2012)

- One of the earliest brownfield projects in Miami-Dade County
- Massive, illegal landfill site
- Office warehouse park
- State Liability Protection
- Voluntary Cleanup Tax Credit
- Consolidated Regulatory Review

HILTON GARDEN INN PROCACCI HOTEL
1556 NW 110TH AVENUE, SWEETWATER

Procacci Sweetwater
BSRA ID# 130843001
Executed December 31, 2013
Address: 1556 NW 110th Avenue, Sweetwater
DERM HWR-780

A BSRA was executed between Miami Dade County (MDC) and Proccaci Sweetwater, LLC for the property located at 1556 NW 110th Avenue. DERM Records indicate that the parcel was previously used for concrete block manufacturing and as a parking lot with underground storage of petroleum products between 1987 and 1993. The eastern portion of this property is encompassed by the former Marks Brothers Dump/Lakefill and contains buried solid waste. Site improvement and development activities were initiated in 2014 in accordance with plans approved by DERM, and a Certificate of Construction Completion was received in February 2015. Redevelopment of the site as a Hilton Garden Inn is nearing completion. Groundwater monitoring is being conducted in accordance with a Monitoring Only Plan approved on June 6, 2015.

Vacant site (2014)

Building construction (2015)

Constructed hotel (2016)

- Former concrete plant, Mark's Dump Site
- Homewood Suites & Hilton Garden complex
- 391 Rooms
- $35 million mortgage
- State Liability Protection
- Voluntary Cleanup Tax Credit
- Consolidated Regulatory Review

WAL-MART NEIGHBORHOOD MARKET
1499 N. HOMESTEAD BOULEVARD, HOMESTEAD

Wal-Mart Neighborhood Market
BSRA ID# 131201001
Executed December 28, 2012
Address: 1499 N. Homestead Boulevard, Homestead
DERM UT-1961/File-554/DEP-138629034

Walmart Stores East, LP executed a BSRA for the property located at 1499 Homestead Boulevard. The site previously operated as an automotive dealership and mechanical repair shop until 1996. Oil water separators, hydraulic lifts, and underground storage tanks were removed from the site. The site assessment was completed and approved on December 6, 2012, and documented Volatile Organic Compounds and Polycyclic Aromatic Hydrocarbon groundwater contamination. Groundwater monitoring is being conducted for a No Further Action site closure. The Wal-Mart Neighborhood Market opened in January of 2014 and created up to 95 full and part-time jobs.

Constructed Walmart (2015)

- Former automotive dealership & body repair shop
- USTs, hydraulic lifts, oil-water separators
- Soil contamination and multiple groundwater plumes
- State Liability Protection
- Voluntary Cleanup Tax Credit
- Brownfield Job Bonus Tax Refund
- Consolidated Regulatory Review

CORINTHIAN APARTMENTS (AFFORDABLE)
NW 22ND AVENUE & NW 78TH STREET, MIAMI-DADE COUNTY

Corinthian Multifamily Apartments

BSRA ID# 139904002
Executed December 17, 2004
Address: NW 22nd Avenue and NW 78th Street, Miami
DERM HWR-579/File-21120

A BSRA was executed with Liberty City Holdings, LLC for the development of Corinthian Multifamily Apartments at 7725 NW 22 Avenue. The site formerly housed a plant nursery and contamination assessment documented arsenic soil and groundwater contamination. A conditional closure, with engineering and institutional controls, has been elected for the site. Construction of the apartment building was completed in July of 2007. The engineering control has been completed. Groundwater impacts at the property boundary have been documented and remediation or closure with conditions (pending consent from off-site property owners) is pending for the site.

Prior to site construction (April 13, 2006)

The Corinthian completed (June 8, 2007)

Corinthian Apartments (2010)

- Former nursery
- Arsenic in soil and groundwater
- State Liability Protection
- Voluntary Cleanup Tax Credit
- Construction Materials Sales Tax Refund
- Consolidated Regulatory Review

MIDTOWN MIAMI
N. MIAMI AVE BETWEEN NE 29TH ST & NE 36TH ST, MIAMI

Midtown Miami/Former FEC Buena Vista

BSRA ID# 139801002
Executed December 18, 2003
Address: North Miami Avenue between NE 29th ST & NE 36th ST, Miami
DERM UT-5419/File-10621/DEP-139805136

A BSRA was executed with Biscayne Development Partners, LLC, for the Midtown Miami/Former FEC Buena Vista site. The site was formerly owned by the Florida East Coast Railway and was used as a storage yard for freight containers in the maritime transport of goods. The contamination assessment documented lead and arsenic in the soil and arsenic and petroleum contamination in the groundwater. This site is currently in the institutional and engineering control plan phase in pursuit of a No Further Action with Conditions site closure. The development is mixed use and when completed will consist of 600,000 square feet of retail space, 3,000 condo lofts and 350 apartment units. It will have an estimated development value of $1.2 billion and will generate an estimated 1,700 permanent jobs. Construction has commenced on an additional two tracts for retail space (Wal-Mart) and residential space (multi-story apartments). A Soil Management Plan was approved on December 2, 2015 for the proposed Wal-Mart store. The remaining tracts have interim engineering controls.

Midtown Miami prior to site development (2003)

Midtown Miami (2008)

- Former railyard, former freight storage for maritime transport of good
- Arsenic in soil and groundwater
- 600,000 SF of retail
- 3,000 condo lofts
- $1.2 billion of capital investment
- Over 2,000 permanent jobs
- State Liability Protection
- Voluntary Cleanup Tax Credit
- Brownfield Job Bonus
- Consolidated Regulatory Review

PANATONNI BUSINESS PARK
11700 EAST GOLF DRIVE, MIAMI-DADE COUNTY

Former Westview Golf Course

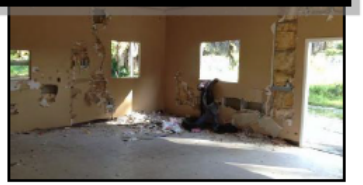
BSRA ID#139904004
Executed December 18, 2015
Address: 11700 East Golf Drive, Miami
DERM AW-173/File-9374

Former restroom building

Overgrown former golf course area

CP Logistics Westview, LLC entered into a BSRA for a vacant parcel (folio # 30-2134-001-0620) formerly known as the Westview County Club Golf Course. The property, approximately 77.37 acres, is the portion of the former golf course located south of NW 119th Street. The golf course operated from 1958 until 2011. A limited soil and groundwater investigation was conducted in September 2014 which identified the current contaminants of concern to be arsenic, dieldrin, and toxaphene in soils and arsenic in groundwater and surface water (lakes). Additional soil and groundwater assessment is pending. The property has been divided into two areas for redevelopment purposes. The northern 20 acres will be redeveloped for commercial use and the remainder of the property will be developed for industrial use, with an estimated creation of 2000 jobs upon development of the property. The former maintenance area is planned to be redeveloped as a 5-acre park.

Dumping near former maintenance building



Vandalism of interior of maintenance building

- 90 Acre golf course
- Arsenic in soil and groundwater
- 804,000 SF of Office & Industrial Warehouse
- 10 acre retail component, grocery anchored
- State Liability Protection
- Voluntary Cleanup Tax Credit
- Brownfield Job Bonus
- Consolidated Regulatory Review

PARK REUSE SUPPORTIVE OF PRIVATE DEVELOPMENT & P3 INITIATIVES

CITIES OF DORAL, NORTH MIAMI BEACH, AND NORTH MIAMI

Doral Legacy Park Sports & Wellness Complex Green Reuse Site

BSRA ID# 131502001
Executed December 18, 2015
Address: 11400 NW 82nd Street, Doral
DERM HWR-846

Boundaries of Green Reuse Area

The City of Doral's Doral Legacy Park is being built on 18+ acres of vacant land. Arsenic soil contamination, attributed to naturally occurring conditions (muck), was removed from the site. The future park, currently under construction and slated for completion in the summer of 2016, will contain numerous athletic fields, an outdoor movie area and a 35,000 square foot community center, among other amenities. Site assessment is pending.

Current site conditions

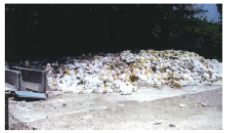
Approved conceptual plan

Taylor Park Green Reuse Site

BSRA ID# 131501001
Executed December 16, 2015
Address: 15458 West Dixie Highway
DERM HWR-467/File-16867
FDEP Identification No. COM_211616
OGC Tracking No. 15-1659

The City of North Miami Beach and the Florida Department of Environmental Protection executed a BSRA for the Taylor Park Green Reuse Site on December 16, 2015. The Taylor Park site, consisting of about 21.8 acres, was operated in the 1940s and 1950s as a lakefill by Miami-Dade County. The site was deeded to the City of North Miami Beach in 1953. By 1957, the City of North Miami Beach had constructed a ballfield and in 1963 a former daycare facility was constructed. The City reportedly used the undeveloped portion of the property for storage of construction debris, vehicle parts, and a recycling staging area. The ballfield was actively used until 2005 when it was used for temporarily staging Hurricane Wilma debris. Prior assessment activities documented buried debris, iron and ammonia groundwater impacts and arsenic in the soil and groundwater. Further assessment is being conducted. The site will be redeveloped for recreational use.

Containers in storage yard



Recyclable materials in storage yard

Former Rucks Park

BSRA ID# 131403001
Executed December 23, 2014
Address: 13780 NE 5th Avenue, North Miami
DERM IW5-8624/File-8022

The City of North Miami entered into a BSRA for a vacant property identified by Miami-Dade Folio number 06-2219-000-1620. The property was formerly occupied by the Rucks Park Wastewater Treatment Plant and contained a plant nursery. Current contaminants of concern include arsenic, ammonia and fecal coliform in the groundwater and arsenic, lead, pesticides and polycyclic aromatic hydrocarbons in soil. Site assessment activities are on-going. Development proposals considered for the Rucks Park site include conservation, recreation, healthcare and/or residential uses.

Vacant lot (2014)

Making the Case: Prime time for contaminated land reuse

- Over 1 million brownfield sites & over 15 million acres of contaminated land in the U.S.

- (Still) strong institutional support within U.S. EPA and sister federal agency partners: http://www.epa.gov/brownfields/partners/federal_partnerships.htm

- Mature, invested, proven state regulatory & tribal program network
- Highly attractive to local government planning & economic development officials
- Widespread acceptance in the private sector
- Great metrics
- Federal grant dollars flowing to Florida

FLORIDA BROWNFIELD PROGRAM
- METRICS -

- 436 Designated Brownfield Areas (09/29/17)
  - Total: 266,389.49 acres
  - Largest: 14,190.37 acres (Hamilton County EZ Area)
  - Smallest 0.26 acres (Land South, North Miami, FL)
- 299 Sites with Executed BSRAs (09/29/17)
  - Total: 5,303.68 acres
  - Largest: 608.45 acres (Commercial/Residential Mixed Use, Fort Myers, Lee County)
  - Smallest: 0.19 acres (Historic Building Reuse, Wachula, Hardee County)
- 51 SRCOs and 39 SRCOCs (09/29/16)
- $2.7 Billion in Projected Capital Investment *
- 65,000 Confirmed and Projected New Direct/Indirect Jobs *

*July 1997 through August 2016

FEDERAL BROWNFIELD PROGRAM - METRICS -

- Projects leveraged $17.79 per EPA dollar expended
- Total Dollars Leveraged: $22.048 Billion
- Leveraged 116,013 jobs nationwide
- Properties Assessed: 24,714
- Cleanups Completed: 872
- Acres Made Ready for Reuse: 61,813
- Accomplishment Report by State and Tribal Response Program Using CERCLA Section 128(a) Funding, Since FY 2006:
  - Made over 1,000,000 acres ready for reuse
  - Completed more than 117,000 cleanups
- Can increase residential property values 5.1% to 12.8% when nearby brownfields are addressed
- Can increase overall property values within a one mile radius by $0.5 to $1.5 million
- Five pilot studies conducted on Environmental Benefits concluded
  - 32 to 57 percent reduction in vehicle miles traveled
  - 47 to 62 percent reduction for stormwater runoff

TRANSACTING CONTAMINATED LAND: MYTHS VS. REALITY

- Myth: It is impossible to transact contaminated land in Miami-Dade County
- *Fact: Transact contaminated land has become mainstream; we supported over 100 such transactions in CY 2016.*

- Myth: If a buyer identifies contamination during due diligence, it is required by law to report the contamination, even if the Seller prohibits it by contract
- *Fact: A mere buyer of contaminated land has not duty to disclose any of its environmental findings.*

- Myth: If a realtor becomes aware of contamination during due diligence, she or he is required by law to report the contamination.
- *Fact: A realtor has no such duty to disclose by law.*

- Myth: You can't get financing on contaminated land.
- *Fact: Lenders routinely lend on contaminated land (of all kind). We've closed deals with Bank of America, Bank of the Ozarks, BB&T, Fifth Third Bank, John Hancock, JP Morgan, TD Bank, Mercantil Commercebank, Ocean Bank, Sabadell United Bank, and Wells Fargo.*

- Myth: You can't insure contaminated land.
- *Fact: The marketplace is awash in environmental insurance. And it is widely available and especially useful for commercial real estate transactions*

TRANSACTING CONTAMINATED LAND: MYTHS VS. REALITY

- Myth: You can't do business with Miami-Dade County DERM; they are unfair, unreliable, unpredictable, and anti-development.
  - *Fact: Very sophisticated group with deep resources who have processed thousands of contamination matters. They can help you make your desired technical case to achieve a particular remediation outcome.*
  - *Fact: They call balls and strikes. Rule oriented, not swayed by politics. Honest brokers. Public service oriented with a particular emphasis on public notification.*
  - *Fact: They leverage learning and decision-making from previous cases, which makes them very predictable and creates certainty for buyers/sellers/lenders/professionals.*
  - *Fact: They've independently generated vast databases of technical information, like regional arsenic background data, to streamline decision-making and provide flexibility.*
  - *Fact: With the proper coordination and Miami-Dade County DERM can be a powerful development partner and the most important factor in establishing realistic project timeframes, reliable project budgets, and economic and regulatory incentive that reduce cost and limit exposure to liability.*
  - *Fact: They will routinely agree to provide written statements of liability or non-liability to facilitate financing and provide clarity to investors and end-users*

TRANSACTING CONTAMINATED LAND: MYTHS VS. REALITY

- Myth: Remediating contaminated land is too difficult, too lengthy, too expensive, holds up development, and no client will ever accept the risks and obligations
  - *Fact: Remediation is difficult but not too difficult; we have world class consultants in Miami-Dade with decades of experience and impressive track records of success.*
  - *Fact: Remediation timeframes have been drastically shortened over the years by new laws and regulations that allow for "conditional closure"*
  - *Fact: Conditional closure typically reduces the cost of cleanup by 70% - 90% and environmental based economic incentives can recover between 75% to more than 200% of the cost of cleanup. There is also a hidden remediation incentive that subsidizes development costs*
  - *Fact: Development can occur prior to completion of remediation and, in many cases, prior to initiation of remediation; however, proper planning is imperative.*
  - *Fact: With the proper coordination and Miami-Dade County DERM can be a powerful development partner and the most important factor in establishing realistic project timeframes, reliable project budgets, and economic and regulatory incentive that reduce cost and limit exposure to liability.*
  - *Fact: If your client undertakes to buy a contaminated site, it will be in good company. A very partial list of repeat buyers and developers of contaminated sites in Miami-Dade County include Codina, Courtelis, Landmark,Pan American Group, Pinnacle Housing Group, Procacci, Related Group, Cornerstone Group, Lennar, Mana, RAM Realty, Wal-Mart, Wawa, ZOM.*

ENVIRONMENTAL REDEVELOPMENT COMPASS

NAVIGATING ECONOMIC OPPORTUNITY THROUGH CONTAMINATION RISK

- Bull market in Brownfields creates new business opportunity for real estate professionals but also significant risk for those realtors with little to no experience working on redevelopment projects generally and integrating cleanup requirements with construction requirements specifically
  - Cleanup is generally a linear process, from discharge to discovery to delineation to remediation to closure
  - Redevelopment (of contaminated sites) is non-linear and requires certain assessment and remediation type activities to be applied in a construction context with no regulatory framework (i.e., “guiderails”)
- Easy to miss the “forest from the trees” where the forest is the incremental costs of construction to properly manage contaminated media during site development and construction and the trees are the more commonly (and easily) recognizable (and quantifiable) direct costs of contamination cleanup
  - Knowing how to quantify the environmental component of incremental construction costs is a key aspect of limiting consultant malpractice at contaminated redevelopment sites

ENVIRONMENTAL REDEVELOPMENT COMPASS

NAVIGATING ECONOMIC OPPORTUNITY THROUGH CONTAMINATION RISK

- When recommending environmental consultant, ensure that consultant has extensive experience with contaminated land due diligence and redevelopment of contaminated sites.
- An environmental consultant's "base knowledge set" must be expanded when working on contaminated redevelopment sites to better serve client, create project efficiencies, limit costs and expenses, and prevent professional malpractice.
  - Such expansion should include fluency with the commonly accepted cannon of quasi-regulatory construction management documents either required or recommended by regulators in Florida; understanding when to recommend invasive testing on sites that may not have any "Recognized Environmental Conditions"; ability to employ increasingly broad flexibility and utility of regulatory, technical, and legal aspects of Chapter 62-780, F.A.C. to achieve redevelopment goals, timing needs, and budget requirements; and insight into economic, regulatory, and legal substance of Florida's Brownfields Program to utilize its tools and resources to subsidize remediation and construction costs, relieve regulatory burden associated with obtaining closure, and create liability protection for responsible parties, end-users and lenders.
  - Among "Worst Management Practices" by consultants at contaminated redevelopment sites is actively recommending (or passively allowing) certain construction activities that can void important federal and state law defenses to CERCLA and CERCLA-type liability that are typically and easily obtained prior to land acquisition merely by conducting All Appropriate Inquiry.

ENVIRONMENTAL REDEVELOPMENT COMPASS

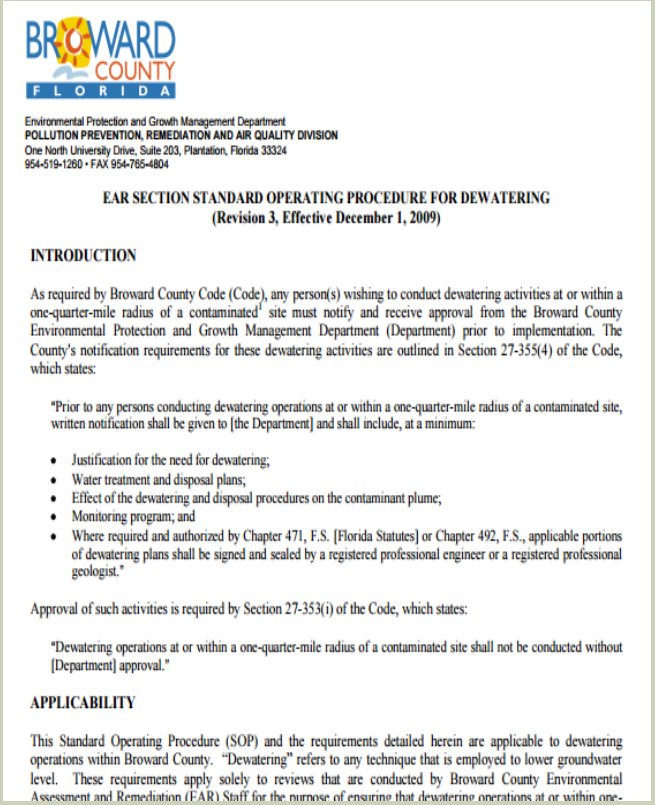
NAVIGATING ECONOMIC OPPORTUNITY THROUGH CONTAMINATION RISK

- Understand the distinction between pursuing a straight line from contamination discharge/spill to regulatory closure and the not-so-straight line that connects contamination remediation and land redevelopment/redevelopment and construction
  - Process begins with proper scoping/implementation of Phase I ESA
  - Open lines of communication with civil design team
    - Stormwater structures
    - Subsurface improvements
    - Displacement of Soil
    - Geotechnical Implications
  - Estimating "Non-Remediation" Remediation Costs – the Incremental Costs of Construction ("ICCs")
    - Soil exported for geotechnical, civil design, or utility installation reasons
    - Construction dewatering
    - Clean fill for engineering controls
    - Processing and removal of solid waste
      - Calculating volumes of Recovered Screen Material/Screened Solid Waste
      - Implications on Dynamic Compaction on Groundwater Monitoring Data
    - Methane & Other Chemical Vapor Barrier Systems

ENVIRONMENTAL REDEVELOPMENT COMPASS

NAVIGATING ECONOMIC OPPORTUNITY THROUGH CONTAMINATION RISK

- "Quasi-Regulatory" Construction Management Documents for Contaminated Redevelopment Sites
  - Soil Management Plan
  - Construction Dewatering Plan
  - Air Monitoring Plan
  - Waste Relocation Plan
  - Health & Safety Plan
- Regulatory Guidance Varies
- Level of Regulatory Review Varies
- Standard of Care Varies



BROWARD COUNTY FLORIDA

Environmental Protection and Growth Management Department
POLLUTION PREVENTION, REMEDIATION AND AIR QUALITY DIVISION
One North University Drive, Suite 203, Plantation, Florida 33324
954-519-1260 • FAX 954-765-4804

EAR SECTION STANDARD OPERATING PROCEDURE FOR DEWATERING
(Revision 3, Effective December 1, 2009)

INTRODUCTION

As required by Broward County Code (Code), any person(s) wishing to conduct dewatering activities at or within a one-quarter-mile radius of a contaminated[1] site must notify and receive approval from the Broward County Environmental Protection and Growth Management Department (Department) prior to implementation. The County's notification requirements for these dewatering activities are outlined in Section 27-355(4) of the Code, which states:

"Prior to any persons conducting dewatering operations at or within a one-quarter-mile radius of a contaminated site, written notification shall be given to [the Department] and shall include, at a minimum:

- Justification for the need for dewatering;
- Water treatment and disposal plans;
- Effect of the dewatering and disposal procedures on the contaminant plume;
- Monitoring program; and
- Where required and authorized by Chapter 471, F.S. [Florida Statutes] or Chapter 492, F.S., applicable portions of dewatering plans shall be signed and sealed by a registered professional engineer or a registered professional geologist."

Approval of such activities is required by Section 27-353(i) of the Code, which states:

"Dewatering operations at or within a one-quarter-mile radius of a contaminated site shall not be conducted without [Department] approval."

APPLICABILITY

This Standard Operating Procedure (SOP) and the requirements detailed herein are applicable to dewatering operations within Broward County. "Dewatering" refers to any technique that is employed to lower groundwater level. These requirements apply solely to reviews that are conducted by Broward County Environmental Assessment and Remediation (EAR) Staff for the purpose of ensuring that dewatering operations at or within one-

ENVIRONMENTAL REDEVELOPMENT COMPASS

NAVIGATING ECONOMIC OPPORTUNITY THROUGH CONTAMINATION RISK

- "Quasi-Regulatory" Construction Management Documents for Contaminated Redevelopment Sites
  - Value for Client and Consultant – Undeniable
    - Breaks down silos between environmental consultants, civil design team, general contractor and owner
    - Allows for better visualization and estimation of ICCs
    - Facilitates coordination and implementation of site development and construction work
    - Creates confidence for regulators
    - Creates confidence among – and accountability for – community stakeholders
    - Sound strategy for maintaining defenses to federal and state environmental liability based on post-closure activities

ENVIRONMENTAL REDEVELOPMENT COMPASS

NAVIGATING ECONOMIC OPPORTUNITY THROUGH CONTAMINATION RISK

- Worst Environmental Practice for Contaminated Land Transactions: Rushing to judgment at the top of the due diligence investigation to give the client what it thinks it wants – a finding of no Recognized Environmental Conditions and a recommendation of no further investigation.
  - Agricultural sites and nurseries almost always warrant Phase II testing in a redevelopment context even in the absence of a smoking REC.
  - The ICCs associated with preparing former agricultural sites and nurseries for reuse when geotechnical or civil design criteria require soil exportation can be ruinous – and a source of consultant exposure to major professional negligence claims – if not properly accounted for. **We see this time and time and time again.**

ESTIMATING INCREMENTAL CONSTRUCTION COSTS FOR REMOVAL OF ARSENIC IMPACTED SOIL AT CONTAMINATED REDEVELOPMENT SITES OF VARYING SIZE

Incremental Costs of Construction Removal & Replacement of 1 foot of Arsenic Impacted Soil				
Size of Site	1 acre	5 acre	10 acre	20 acre
Square Feet	43,560	217,800	430,560	861,120
Cubic Feet	43,560	217,800	430,560	861,120
Cubic Yards	1,613	8,065	16,130	32,260
Tons	2,259	11,295	22,590	45,180
Excavation & Loading	$45,173	$225,865	$451,730	$903,460
Transportation/Disposal	$135,520	$677,600	$1,355,200	$2,710,400
Clean Fill	$45,173	$225,865	$451,730	$903,460
Backfilling/Compaction	$45,173	$225,865	$451,730	$903,460
Total Cost – Removal	$180,693	$903,465	$1,806,930	$3,613,860
Total Cost – Replacement to Grade	$90,346	$451,730	$903,460	$1,806,920
Total Cost – Removal & Replacement	$271,039	$1,355,195	$2,710,390	$5,420,780

Values
1.3 multiplier for cu yds to tons
$20/ton for media excavation & loading
$60/ton for landfill transportation & disposal
$20/ton for clean fill
$15/ton for clean fill backfilling & compaction

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM

ESTIMATING INCREMENTAL CONSTRUCTION COSTS FOR REMOVAL OF ARSENIC IMPACTED SOIL AT CONTAMINATED REDEVLOPMENT SITES OF VARYING SIZE

Incremental Costs of Construction Removal & Replacement of 0.5 foot of Arsenic Impacted Soil				
Size of Site	1 acre	5 acre	10 acre	20 acre
Total Cost – Removal	$90,346.50	$451,732.50	$903,465	$1,806,930
Total Cost – Replacement to Grade	$45,173	$225,865	$451,730	$903,460
Total Cost – Removal & Replacement	$135,519.50	$677,597.50	$1,355,195	$2,710,390

Incremental Costs of Construction Removal & Replacement of 2 feet of Arsenic Impacted Soil				
Size of Site	1 acre	5 acre	10 acre	20 acre
Total Cost – Removal	$361,386	$1,806,930	$3,613,860	$7,227,720
Total Cost – Replacement to Grade	$180,692	$903,460	$1,806,920	$3,613,840
Total Cost – Removal & Replacement	$542,078	$2,710,390	$5,420,780	$10,841,560

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM

BEST MANAGEMENT PRACTICES FOR CONTAMINATED SITE REDEVELOPMENT – UNDERSTANDING/LEVERAGING ENVIRONMENTAL BASED ECONOMIC INCENTIVES

- Develop fluency with financial tools that exist at federal and state level to subsidize redevelopment and cleanup at contaminated redevelopment sites
  - Or develop relationship with consultant that has such fluency and with whom you can team
- Voluntary Cleanup Tax Credit
  - Engineering Control "Construction Windfall"
- Brownfield Job Bonus
- Sales Tax Refund on Construction Materials for Affordable Housing
- Brownfield Grants for Government Entities and Not-for-Profits

NEW MARKETS TAX CREDITS AND BROWNFIELDS

New Markets Tax Credits

Brownfields Solutions Series

A *brownfield* is a property on which expansion, redevelopment, or reuse may be complicated by the presence, or perceived presence, of contamination. EPA's Brownfields Program provides grants to fund environmental assessment, cleanup, and job training activities. Additionally, EPA seeks to strengthen the marketplace and encourages stakeholders to leverage the resources needed to clean up and redevelop brownfields.

This *Brownfields Solutions* factsheet is intended for brownfields stakeholders interested in how the U.S. Department of the Treasury's New Markets Tax Credit (NMTC) Program can be used as a financing mechanism in brownfields cleanup and redevelopment. The NMTC Program is a development tool designed to stimulate the economies of low-income communities. The Program's tax credits, and the investment spurred by them, help to make brownfields projects in low-income communities financially viable.

What is the New Markets Tax Credit Program?

Successful brownfields cleanup and redevelopment projects turn idle land into thriving centers for business, housing, or industry. While brownfields are often located in lower-income communities, a site's location is not usually a deterrent in itself. Financing often presents the most significant obstacle; institutions are sometimes reluctant to lend money to a project with potential environmental liability issues. However, the Community Renewal Tax Relief Act of 2000 provides a financing option that can benefit brownfields cleanup and redevelopment projects.

This legislation established the New Markets Tax Credit (NMTC) Program to promote economic development in rural and urban low-income communities. The Program is a federal tax initiative designed to increase the amount of investment capital available to business and economic development programs in low-income communities, many of which are affected by brownfields.

The NMTC is administered by the Community Development Financial Institutions (CDFI) Fund under the U.S. Department of the Treasury. The CDFI Fund was created for the sole purpose of expanding the availability of credit, investment capital, and financial services in distressed urban and rural communities. Each year, tax credits are allocated for distribution to certain qualifying entities through the CDFI Fund. These qualifying community groups are known as Community Development Entities, or CDEs.

The $15 billion, NMTC Program provides private-sector investors (e.g., banks, insurance companies, corporations, and individuals) with federal income tax credits in return for new investments in eligible businesses, ranging from small business startups to real estate development. Brownfields cleanup and redevelopment projects often fall under these NMTC qualifications.

Total Eligible Capital Cost: $10 million

Federal Income Tax Credit: $3.9million

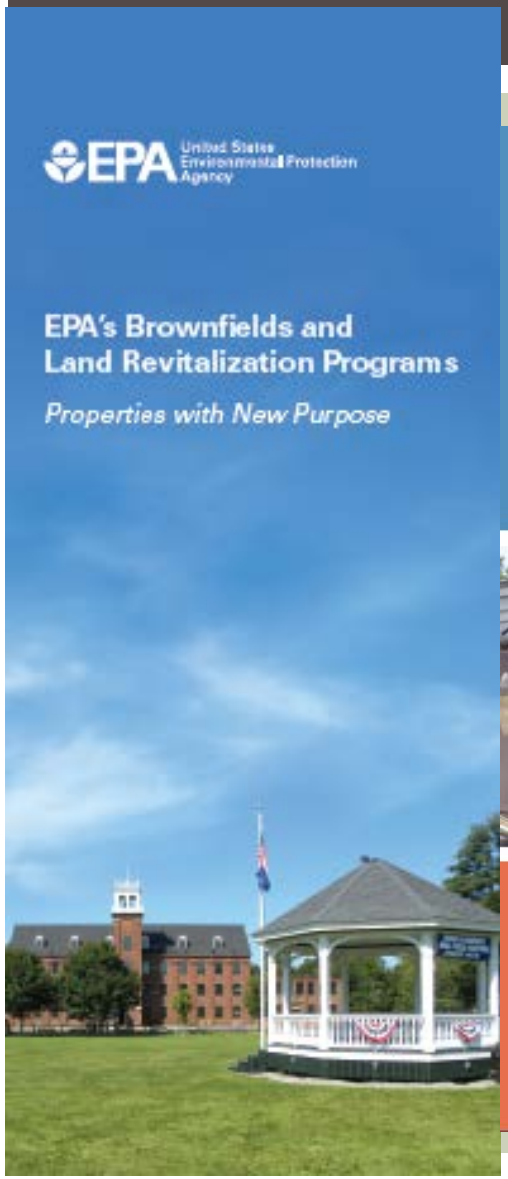
Cash Proceeds: $3.315 million

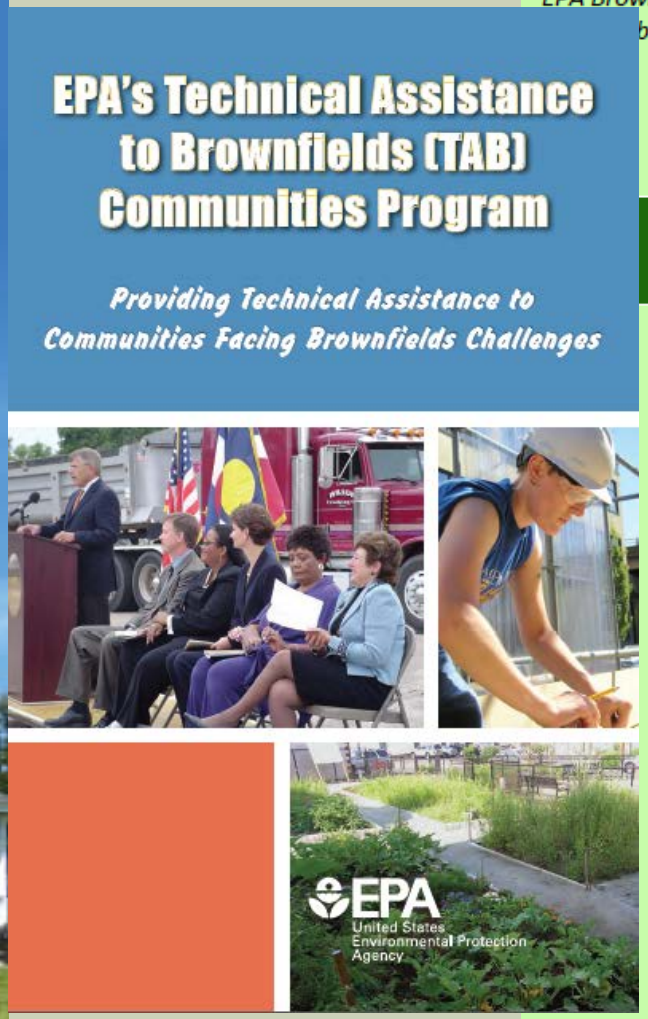
Fees: $600,000.00

Equity Investment: $2.715 million

Post-Income Realization: $1.8 million

GOLDEN AGE OF BROWNFIELDS & DESIGN



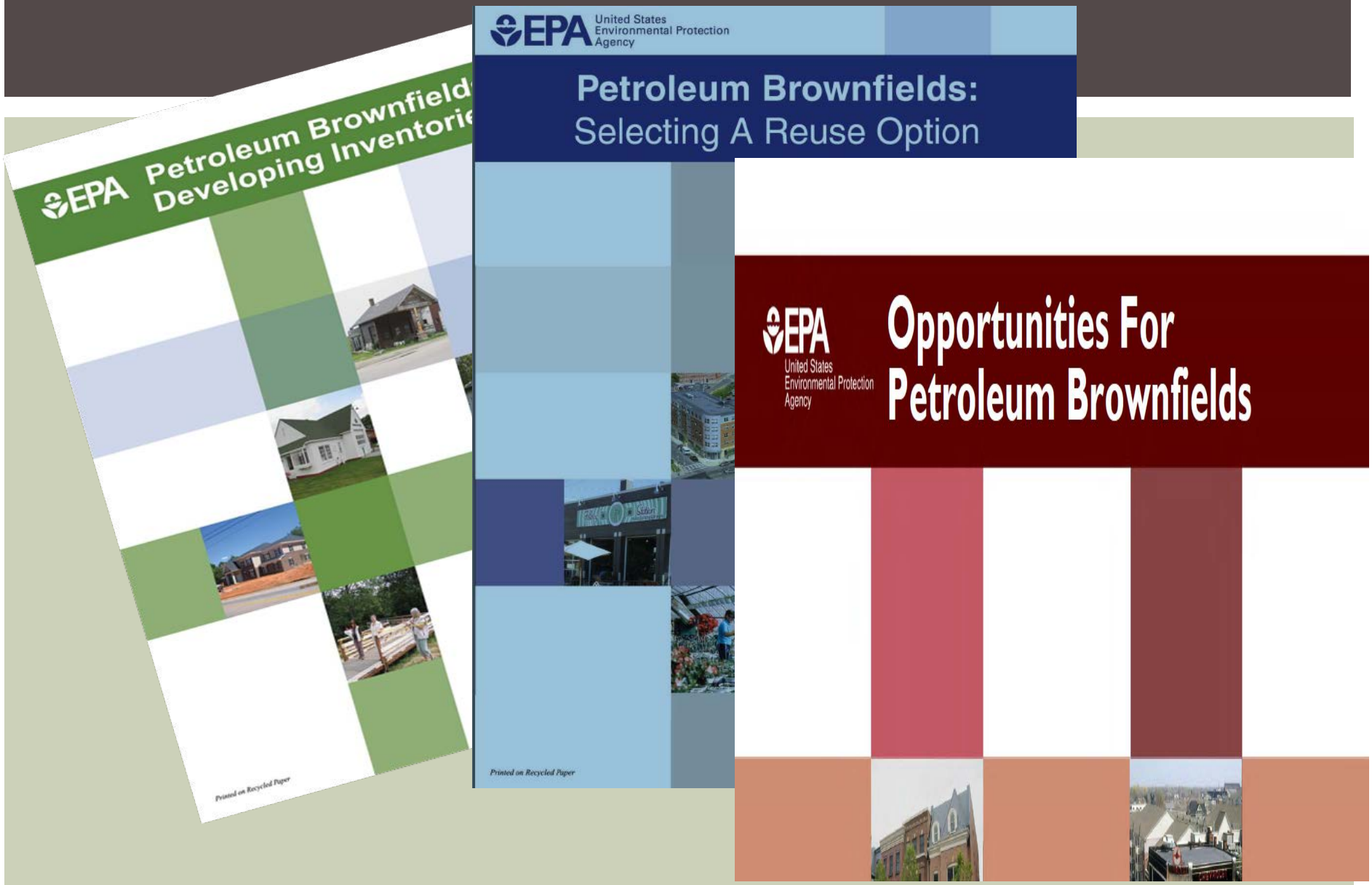


EPA Brownfields
bility Pilot

Conceptual Site Design for Sustainable Redevelopment
Green Avenue Sites, Greenville, SC

TETRA TECH

EPA'S FIRST WAVE PETROLEUM BROWNFIELDS REDEVELOPMENT GUIDANCE MATERIALS



EPA's Second Wave Petroleum Brownfields Redevelopment Guidance Materials

EPA Funding Available to Address
Petroleum Brownfields

United States Environmental Protection Agency

What is a Brownfield?

Under the Brownfields Law (Public Law 107-118, "Small Business Liability Relief and Brownfields Revitalization Act")*, brownfields are defined (with certain exclusions) as real properties, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

What are Petroleum Brownfields?

The Brownfields Law has a specific eligibility provision related to petroleum brownfields properties. To be eligible for Petroleum Brownfields funding:

- The property must be of "relatively low risk" compared with other "petroleum-only" properties in the state;
- There is no viable responsible party and the property will be assessed, investigated, or cleaned up by a person that is not potentially liable for cleaning up the property; and
- The property is not subject to any order issued under Resource Conservation and Recovery Act (RCRA) § 9003(h)

*Signed in January 2002, for more information on Public Law 107-118 go to http://www.epa.gov/swerospsb/sblbrba.htm.

Assessment, Revolving Loan Fund and Cleanup Grants (ARC)

ARC funding is available through a competitive grant process to inventory, assess, and clean up properties contaminated by petroleum and/or hazardous substances, controlled substances or mine scarred lands.

- Assessment for site-specific work – are up to $200,000 per property with an option for a waiver request to increase the amount to $350,000.
- Community–wide Assessment – up to $200,000 to address brownfields with hazardous substance contamination and $200,000 for brownfields with petroleum contamination.
- Assessment Coalitions – up to $1,000,000 to address brownfields with hazardous substances and/or petroleum contamination.
- Cleanup Grants –$200,000 for site-specific work which can include any combination of petroleum and hazardous substances not to exceed $200,000; a 20% cost share is required.
- Revolving Loan Funds(RLF) – up to $1,000,000 to loan and/or sub-grant funding to cleanup brownfields with hazardous substances and/or petroleum contamination which can include any combination of petroleum and hazardous substances not to exceed $1,000,000; a 20% cost share is required.

Targeted Brownfield Assessments (TBA)

The TBA program is a service provided through an EPA contract in which EPA directs a contractor to conduct environmental assessment activities to address the requestor's needs. These assessments can address petroleum contamination.

State and Tribal Response Programs (Section 128(a) programs)

Section 128(a) funding is available to all states, US territories and federally recognized tribes through a non-competitive grant process to establish and enhance a response program. These funds can include site-specific work (including oversight) to inventory, assess, and cleanup properties contaminated by petroleum and/or hazardous substances, controlled substances or mine scarred lands.

LUST Trust Fund

Funding may be available through a state implemented LUST Trust fund to address "high priority releases" from leaking USTs. The funding provides money for overseeing and enforcing corrective action taken by a responsible party, who is the owner or operator of the leaking UST and provides money for the assessment and cleanups at UST sites where the owner or operator is unknown, unwilling, or unable to respond, or which requires emergency action (e.g., to mitigate fires, vapors and/or other immediate hazards).

For more information about EPA Petroleum Funding, please visit www.epa.gov/brownfields/grant_info and http://epa.gov/OUST

Spring 2012

EPA
Office of Underground Storage Tanks
www.epa.gov/oust/ustfield/

Environmental Protection Agency's

USTFIELDS

The USTfields Initiative was developed by EPA's Office of Underground Storage Tanks to address abandoned or idle industrial and commercial property where redevelopment is hindered by petroleum contamination from abandoned, federally-regulated underground storage tanks. These properties are often former gasoline service stations, car dealerships, or other industrial sites that have been abandoned and left undeveloped due to fears of liability and expensive cleanup. They have been redeveloped for a variety of uses including residential, recreational, ecological, commercial, and public.

Residential

West Washington Street – Chicago, Illinois
From the 1960s to the 1980s, 2759 West Washington Street was used as a gas station and auto repair shop. In 1994, the City of Chicago, through its Abandoned Service Station Program, took action to remove this neighborhood hazard and eyesore. The city removed eight underground storage tanks, investigated the site, and demolished a 12,000 square foot building on site. The investigation confirmed that the soil was contaminated. After the site sat idle for several years, the state and the city planned a cleanup strategy for the remaining soil which was funded by an USTfields Pilot. The city enrolled the site in the Illinois Voluntary Site Remediation Program and completed cleanup work, making the site safe for residential use. It is now used for low income housing.

Recreational/Ecological

West Ogden Avenue – Chicago, Illinois
The abandoned gas station at 3139 West Ogden Street once tarnished the landscape for the surrounding community and was a potential threat to human health and the environment. The City of Chicago, under its Abandoned Service Station Program, removed 11 underground storage tanks and over 1,500 tons of contaminated material. Because the neighborhood was in need of open space, the city turned this former gas station into a park for the community. **This site was not addressed through the USTfields program, however, recreational reuse, such as this, is occurring at USTfields Pilots.**

Commercial

Whitney Screw – Nashua, New Hampshire
The 5.4-acre Whitney Screw site once housed a screw manufacturer and hand crank ice cream machine producer. The property contained a large area of floating gasoline product from an out-of-service underground storage tank. Under the USTfields Pilot, New Hampshire Department of Environmental Services assessed and conducted oversight in the removal of four underground storage tanks from the site. Tank removal and site investigation work, completed by the City of Nashua, helped to establish State Petroleum Reimbursement Fund eligibility for cleanup of the gasoline. One portion of the site is now occupied by the largest wholesale/retail bicycle facility in New England and the other portion of the site will be used for retail shops. As part of the redevelopment, several historic industrial buildings were restored.

Public

West Ward – Trenton, New Jersey
Trenton's West Ward is a primarily residential area along the Delaware River. The city found leaking underground storage tanks and contaminated soil on an abandoned 1.5 acre West Ward property that was once a local newspaper, pizzeria, and an auto service station. With help from the New Jersey Department of Environmental Protection, the city removed the underground storage tanks from the site, cleaned up 95 tons of contaminated soil, and investigated the site to identify any residual contamination. The state used USTfields Pilot funds to leverage funding from the New Jersey Hazardous Discharge Site Remediation Fund to help the city with the cost of the environmental investigation and cleanup at the site. In 2001, all buildings on the site were demolished and the construction of a new firehouse began in early 2002.

SQUARE FEET

Manhattan's Vanishing Gas Stations

A 16-unit condo building is being constructed on a former gas station site at 11 M

By C. J. HUGHES
Published: October 22, 2013

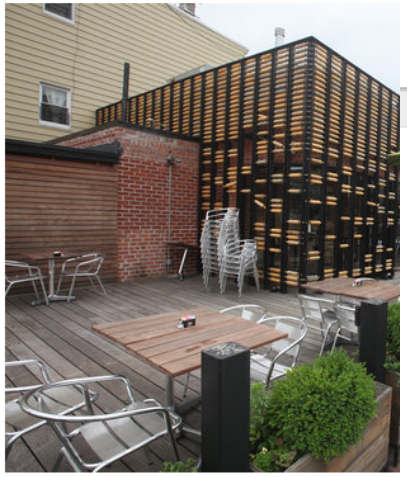
Perhaps there is no clearer sign that Manhattan space has high premium than the continuing disappearance of gasol at main intersections.

Enlarge This Image

Spurred by the recession an recovery's development cla service stations popular am York cabbies and motorists literally losing their ground apartments, stores and offic Rezoning of these sites for

SQUARE FEET

A Clean New Life for Grimy Gas Stations



A $1 million renovation turned a former gas station on 11th Stree

By RONDA KAYSEN
Published: July 10, 2012

HIGH FALLS, N.Y. — The gas station in this H sat empty for years, leaching petroleum into th But a renovation that will transform the aband yoga studio, wellness center and a charging sta has turned the eyesore into a symbol of this str revival.

The station's decline mirrors that of many othe

Thousands of gas stations have closed in the las many communities saddled with vacant or aba Because gas stations are often built on busy str up stations have marred the entrances to many

Vacant gas stations a challenge for Philly-area developers

A TD Bank branch will replace an old Mobil station at this site in Roxborough. At left, four of the many shuttered gas stations in the area. (AKIRA SUWA / Staff Photographer)

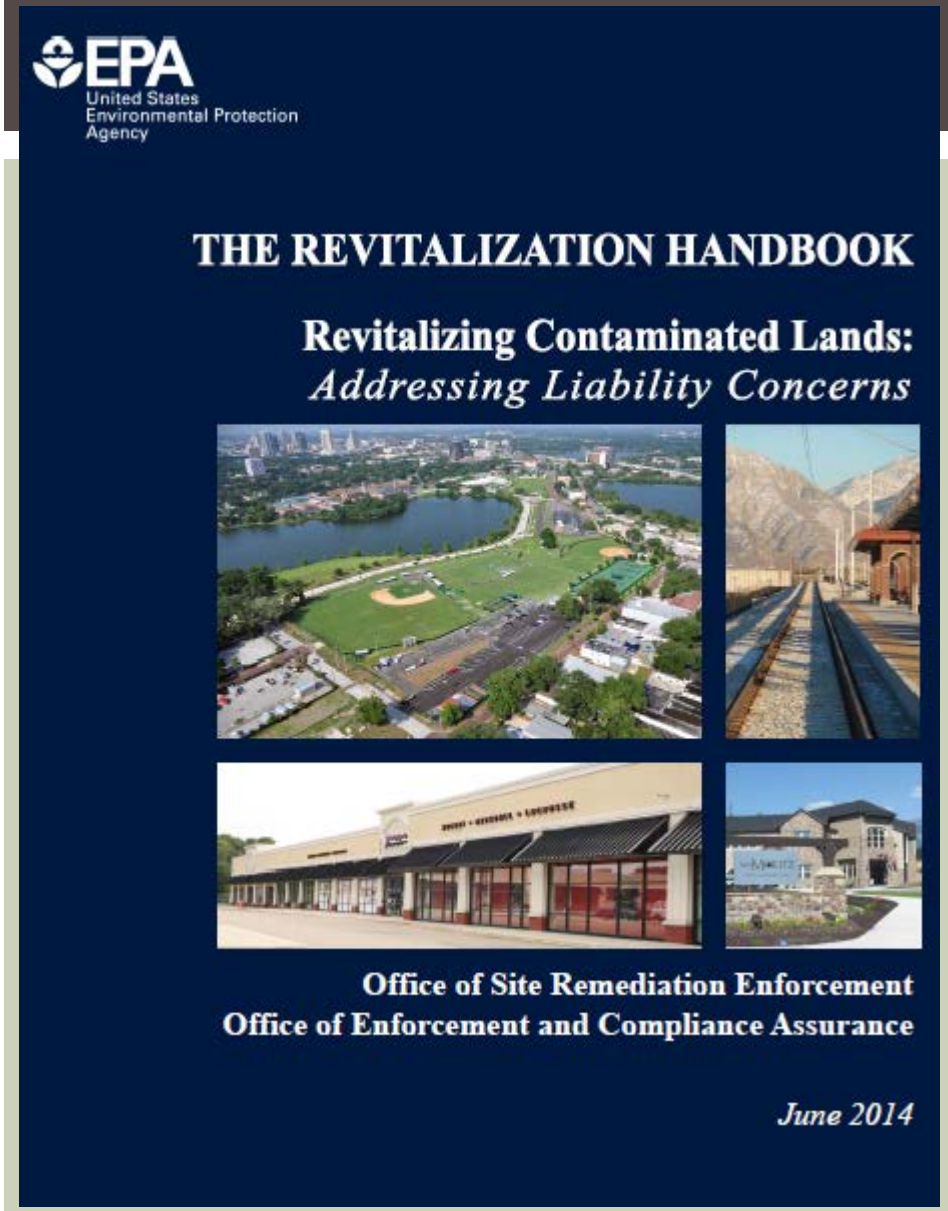
By Harold Brubaker, Inquirer Staff Writer
POSTED: June 12, 2011

Every town seems to have one: The shell of an old gas station, sometimes recognizable as a former Exxon, Sunoco, Mobil, or Texaco.

From Glen Mills to Mullica Hill, they often sit empty for years, patches of gravel showing where aging underground tanks came out, a succession of "available" or "for sale" signs on display.

That was the case at Ridge Avenue and Hermit Street in Philadelphia's Roxborough neighborhood after a Mobil station on that corner closed in

Creating Safe, Reliable, Predictive & Inviting Climate for Private Capital Investment in Contaminated Land Use and Reuse



- Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601
- Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq.

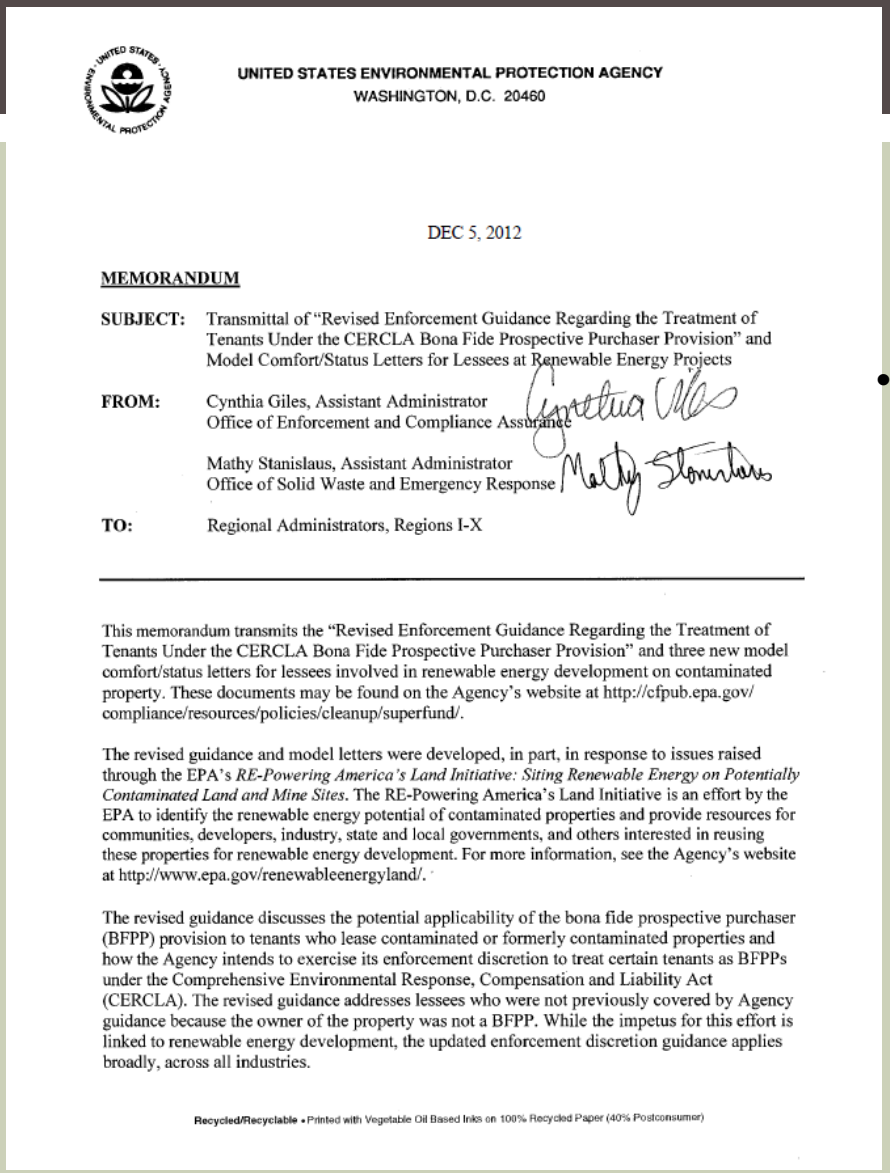
Defenses to Liability:

- Bona Fide Prospective Purchasers
- Contiguous Property Owners
- Third-Party Defense
- Innocent Landowner Liability; and
- Common Elements Guidance
- Secured Creditor Exemption

Liability Management Strategies:

- Ready for Reuse Documentation
- Comfort Letters
- Prospective Purchaser Agreements

Creating Safe, Reliable, Predictive & Inviting Climate for Private Capital Investment in Contaminated Land Use & Reuse



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 5, 2012

MEMORANDUM

SUBJECT: Transmittal of "Revised Enforcement Guidance Regarding the Treatment of Tenants Under the CERCLA Bona Fide Prospective Purchaser Provision" and Model Comfort/Status Letters for Lessees at Renewable Energy Projects

FROM: Cynthia Giles, Assistant Administrator
Office of Enforcement and Compliance Assurance

Mathy Stanislaus, Assistant Administrator
Office of Solid Waste and Emergency Response

TO: Regional Administrators, Regions I-X

This memorandum transmits the "Revised Enforcement Guidance Regarding the Treatment of Tenants Under the CERCLA Bona Fide Prospective Purchaser Provision" and three new model comfort/status letters for lessees involved in renewable energy development on contaminated property. These documents may be found on the Agency's website at http://cfpub.epa.gov/compliance/resources/policies/cleanup/superfund/.

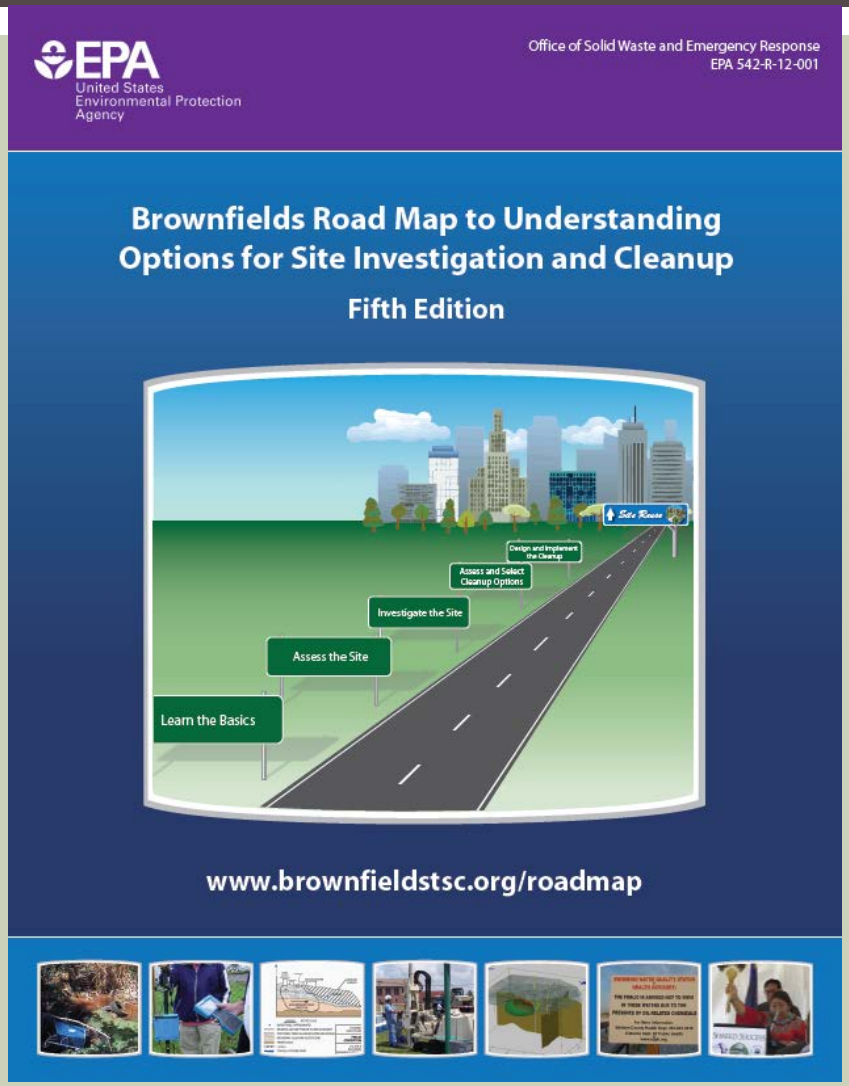
The revised guidance and model letters were developed, in part, in response to issues raised through the EPA's *RE-Powering America's Land Initiative: Siting Renewable Energy on Potentially Contaminated Land and Mine Sites*. The RE-Powering America's Land Initiative is an effort by the EPA to identify the renewable energy potential of contaminated properties and provide resources for communities, developers, industry, state and local governments, and others interested in reusing these properties for renewable energy development. For more information, see the Agency's website at http://www.epa.gov/renewableenergyland/.

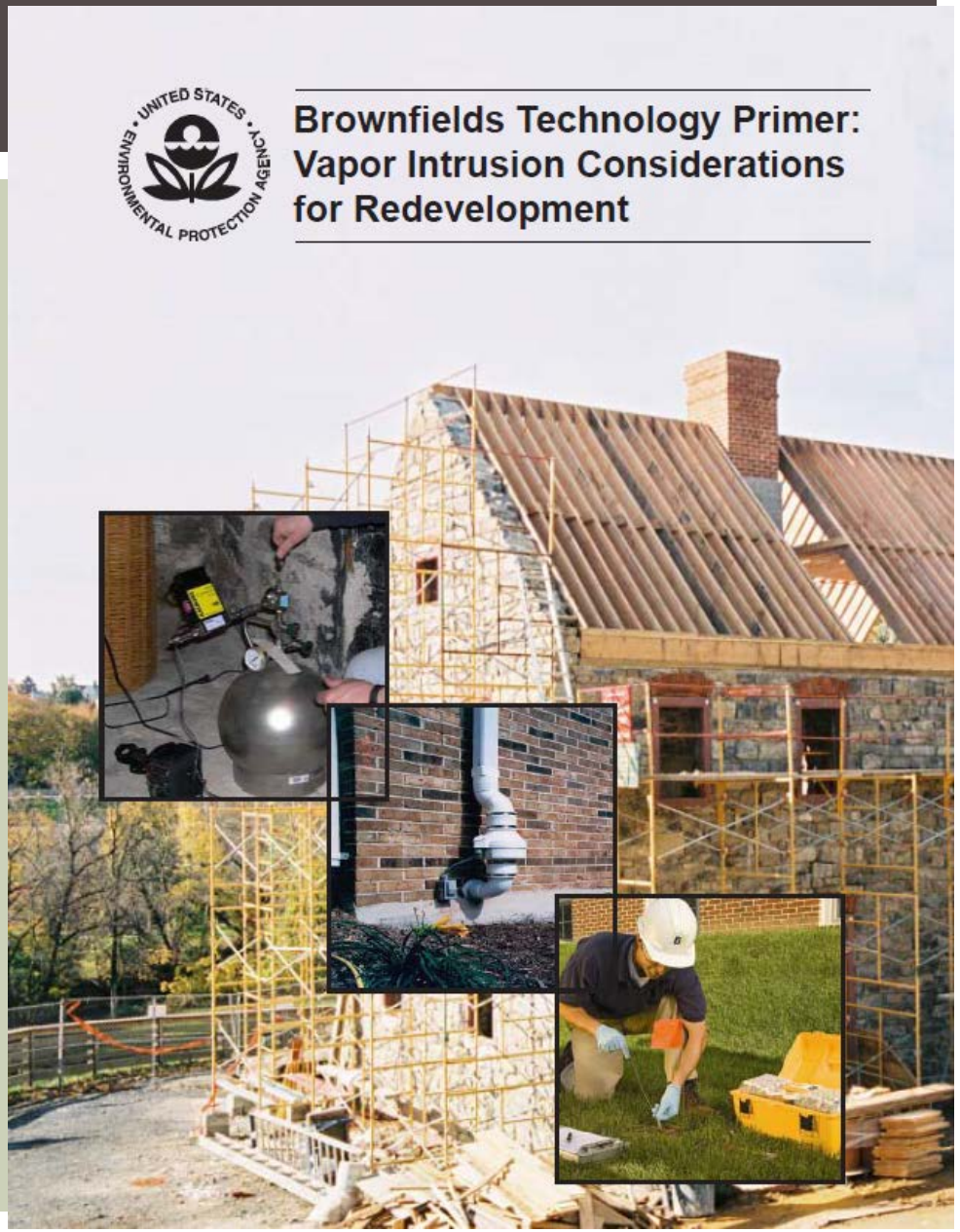
The revised guidance discusses the potential applicability of the bona fide prospective purchaser (BFPP) provision to tenants who lease contaminated or formerly contaminated properties and how the Agency intends to exercise its enforcement discretion to treat certain tenants as BFPPs under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The revised guidance addresses lessees who were not previously covered by Agency guidance because the owner of the property was not a BFPP. While the impetus for this effort is linked to renewable energy development, the updated enforcement discretion guidance applies broadly, across all industries.

Protection of Tenants at Brownfield Sites under CERCLA

- A tenant may enjoy bona fide prospective purchaser ("BFPP") liability protection under CERCLA even if its owner never qualified as a **BFPP if it complies with US EPA's All Appropriate Inquiries requirements by conducting an ASTM-compliant Phase I Environmental Site Assessment before entering into the lease**.

PUTTING IT TOGETHER: INTEGRATING REMEDIATION & REDEVELOPMENT





TOGETHER: INTEGRATING REMEDIATION & REDEVELOPMENT

*** Draft EPA External Review Document. Do not cite or quote. ****

United States Environmental Protection Agency

EPA 510-R-13-xxx

This document is an EPA External Review draft. This information is distributed solely for the purpose of pre-dissemination public review. It does not represent an interim or final Agency determination or policy. Do not cite or quote.

Guidance For Addressing Petroleum Vapor Intrusion At Leaking Underground Storage Tank Sites

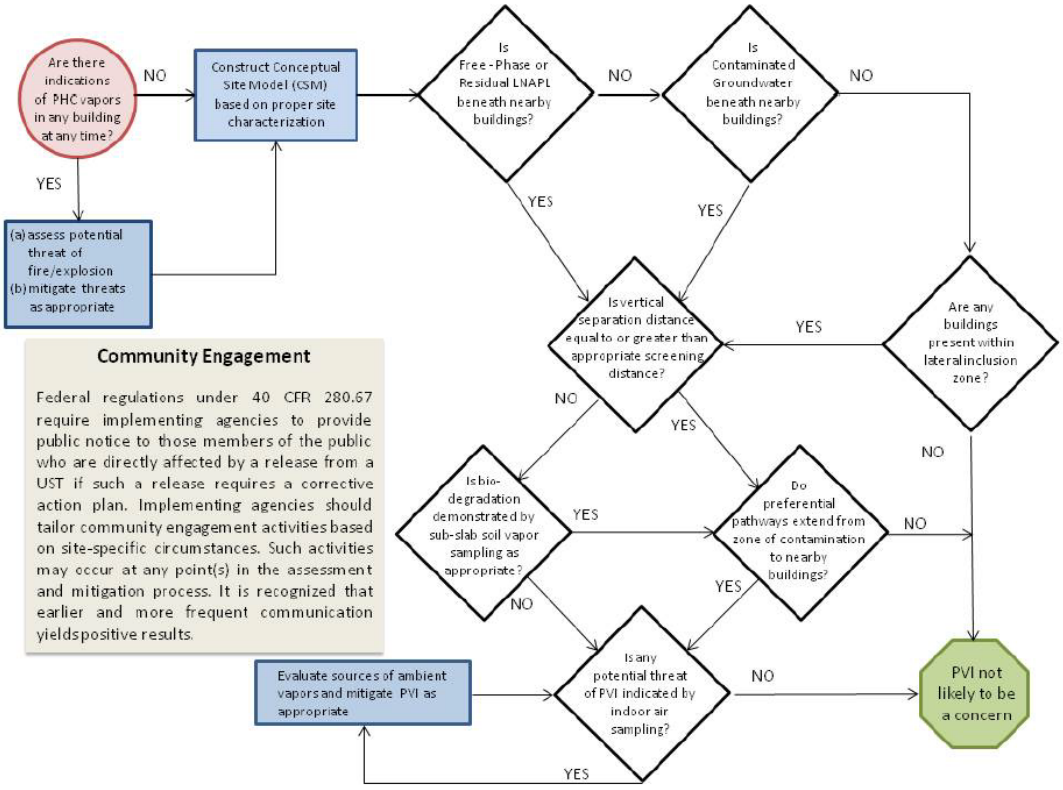
U.S. Environmental Protection Agency
Office of Solid Waste and Emergency Response
Office of Underground Storage Tanks
Washington, D.C.

April 2013

1 of 98

April 2013

Flowchart of the Petro – Hydrocarbon Assessment and Mitigation Process



GUILDING IN GREEN: ENHANCING SUSTAINABILITY VALUES & PERFORMANCE

EPA

BROWNFIELDS AND URBAN AGRICULTURE:

Interim Guidelines for Safe Gardening Practices

Summer 2011

EPA

LAND REVITALIZATION FACT SHEET

GREEN INFRASTRUCTURE

EPA is helping several communities explore opportunities for implementing green infrastructure on vacant land, infill sites, and contaminated properties.

Green infrastructure involves the use of landscape features to store, infiltrate, and evaporate stormwater. This reduces the amount of water draining into sewers and helps reduce the discharge of pollutants into area water bodies. Examples of green infrastructure include rain gardens, swales, constructed wetlands, and permeable pavements.

Building green infrastructure on underused and vacant properties, including brownfields, can be an innovative environmental solution that goes beyond conventional regulatory fixes for controlling stormwater runoff. Green infrastructure also can provide important environmental and socio-economic benefits to communities, regardless of whether the communities have separate sewers or combined sewer systems (see box below).

In Region 7, EPA and the Iowa Department of Agriculture and Land Survey sponsored a green infrastructure workshop for local governments in September 2010 that focused on how to apply green infrastructure techniques to the former stockyard properties in Sioux City, Iowa.

NEW ENVIRONMENTAL SOLUTIONS

EPA's land revitalization initiatives are producing significant environmental benefits and helping to trans
livable places. The strategy of
brownfields and other contam
be a successful approach at
markets and economic realiti
properties unused, possibly fo
to revitalize these sites and pr

EPA's Land Revitalization Team
federal agencies, academic
private sector to develop and
able reuse alternatives for for
green infrastructure to help m
ing safe soil management to
able energy on contaminate
and social benefits to commu
underused properties often re
many public and private par
munities and spur economic

In Region 5, EPA is working with citi
such as Cincinnati and Cleveland
are investing in green infrastructur
as an element of their CSO long-te
control programs. Both cities are w
ing on huge new public works pro
to reduce CSO discharges and pr
area waters. These communities a
the regulatory agencies recognize
important role that land revitalizati
can play in controlling water pollu
from stormwater runoff.

Many communities in the U.S. have separate sewer systems. One set of sewer
before discharging it into nearby lakes and rivers. A second set of pipes c
discharged into receiving waters, generally without treatment. Stormwater t
nutrients, and oil and grease, that wash off streets and parking lots and other
of stormwater and pollutants being discharged can have substantial adverse
lakes, rivers, streams, and wetlands.

Some communities have only one set of sewer pipes that handle both wastew
water. These combined sewer systems can convey wastewater and stormwater t
plants in dry weather, but during rain events there is too much volume for the se
The sewers overflow, releasing a mixture of stormwater and untreated wastewate
waters. These discharges, called combined sewer overflows (CSOs), are a maj
tion concern for the approximately 772 cities in the U.S. that have combined sew

EPA United States Environmental Protection Agency | Office of Solid Waste and Emergency Response (5102G) | EPA 542-F-11-024 December 2011

Green Remediation Best Management Practices: Landfill Cover Systems & Energy Production

Office of Superfund Remediation and Technology Innovation | Quick Reference Fact Sheet

The U.S. Environmental Protection Agency (EPA) *Principles for Greener Cleanups* outline the Agency's policy for evaluating and minimizing the environmental "footprint" of activities undertaken when cleaning up a contaminated site.[1] Use of the best management practices (BMPs) recommended in EPA's series of green remediation fact sheets can help project managers and other stakeholders apply the principles on a routine basis while maintaining the cleanup objectives, ensuring protectiveness of a remedy, and improving its environmental outcome.

Remediation at thousands of sites across the United States involves hazardous waste from former industrial landfills or waste piles, aged municipal landfills, or illegal dumps. A cover system is commonly installed at these areas as part of proper closure to serve as a surface barrier that contains the source material, reduces contaminant exposure or migration, and manages associated risk. Also known as a cap or cover, a cover system is typically used where:

- A hazardous, municipal, or co-disposal landfill was created before the 1976 enactment of, and subsequent amendments to, the Resource Conservation and Recovery Act (RCRA)
- An existing unit such as a closed impoundment has been designated as a consolidation area or a decision is made to build a new onsite landfill, and/or
- Direct contact or groundwater leaching presents a risk.

Cover systems can benefit from innovative designs that increase long-term performance while reducing maintenance needs. When properly designed and maintained, a final cover system for a closed landfill or consolidation unit can also provide significant opportunities for site reuse (typically on a restricted basis).

The environmental footprint of activities needed to install and maintain a cover system can be reduced by adhering to EPA's ***Principles for Greener Cleanups***. The core elements of a greener cleanup involve:

- Reducing total energy use and increasing the percentage of renewable energy
- Reducing air pollutants and greenhouse gas (GHG) emissions
- Reducing water use and negative impacts on water resources
- Improving materials management and waste reduction efforts, and
- Protecting ecosystem services.

Green remediation BMPs for addressing landfills focus on:

- ***Designing and installing a cover system*** through approaches such as materials life cycle assessment for conventional covers or selection of alternative caps
- ***Landfill gas recovery for beneficial use*** as a renewable source of energy
- ***Integrating landfill cover designs with reuse*** of a site for generating energy from solar or wind resources or for other beneficial use, and
- ***Maintaining and monitoring a final cover*** through streamlined operation and maintenance (O&M) activities and automated equipment.

Landfills built to contain hazardous wastes are governed by Subtitle C of RCRA (40 CFR 264.300), while those constructed for non-hazardous waste such as municipal solid waste (MSW) are covered by RCRA Subtitle D (40 CFR 258). In addition to RCRA requirements, closure and capping of a landfill or former waste area can be subject to requirements of the Clean Air Act, Clean Water Act, and other federal, state, or local regulations. In cleanup programs such as Superfund, these regulations can be applied to parts of a remedy as applicable or relevant and appropriate requirements (ARARs).

Designing and Installing a Cover System

A Subtitle C or D ***conventional cover system***, also known as a barrier cover, is linked to the landfill liner system. This type of cover consists of a layer of compacted soil with permeability below or equal to that of the liner or the natural soils present (or for Subtitle D, permeability no greater than 1×10^{-5} cm/sec). Since the liner of a Subtitle C cover system often consists of a geomembrane, its corresponding cover needs to be constructed in a fashion resulting in equivalent permeability. Other layers for drainage or gas collection or to serve as a biobarrier can be added. ***Green remediation BMPs*** for designing and installing a conventional cover system include:

- Design in ways that mimic rather than alter the site's natural setting, to improve the cover's long-term

Guilding in Green: Enhancing Sustainability Values & Performance

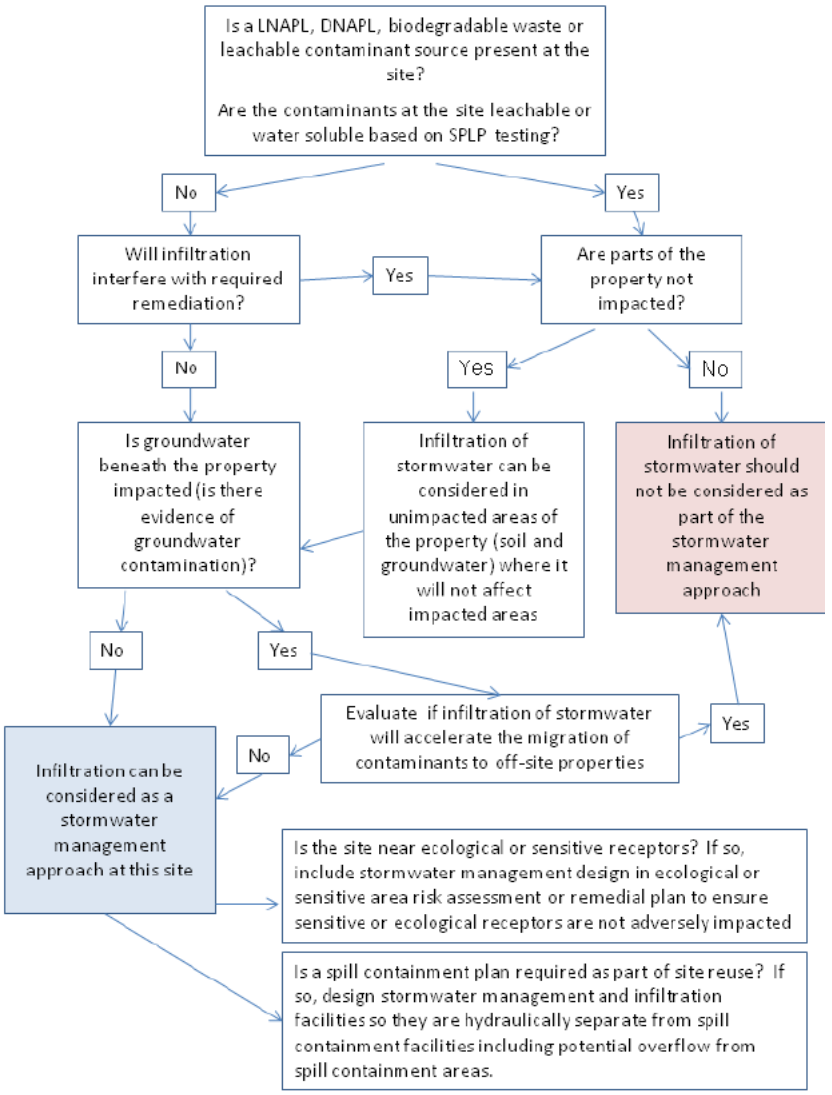
United States Environmental Protection Agency

EPA Publication Number 905F13001
July 2013

Implementing Stormwater Infiltration Practices at Vacant Parcels and Brownfield Sites

U.S. Environmental Protection Agency
Office of Water
Office of Solid Waste and Emergency Response

Decision Flowchart for the Use of Stormwater Infiltration at Brownfield Sites



Color
Brown Reuse Blue:

Major Federal Design, Energy, and Economic Priority

http://www.epa.gov/oswercpa/

EPA United States Environmental Protection Agency

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Siting Renewable Energy on Potentially Contaminated Lands, Landfills, and Mine Sites

EPA is encouraging renewable energy development on current and formerly contaminated lands, landfills, and mine sites when it is aligned with the community's vision for the site. This initiative identifies the renewable energy potential of these sites and provides other useful resources for communities, developers, industry, state and local governments or anyone interested in reusing these sites for renewable energy development.

Mapping and Screening Tools

- Google Earth Mapping Tool
- State and National Maps
- Site Screening
  - Solar Decision Tree (PDF) (18 pp, 815K, About PDF)
  - Wind Decision Tree (PDF) (18 pp, 864K, About PDF)

Technical Assistance and Support

- EPA / NREL Feasibility Studies
  - Solar
  - Wind
  - Biopower
  - Geothermal
- Incentive Fact Sheets

Redevelopment Tools and Resources

Fact Sheets and Success Stories

Spotlight

- EPA's RE–Powering America's Land Initiative Recognized by Harvard University as a Top Government Innovation
- RE–Powering Finance Fact Sheet (PDF) (2 pp, 453K, About PDF)
- Completed Renewable Energy Projects on Potentially Contaminated Lands, Landfills and Mine Sites (PDF) (8 pp, 168K, About PDF)
- RE–Powering Accomplishments Report (PDF) (2 pp, 327K, About PDF)

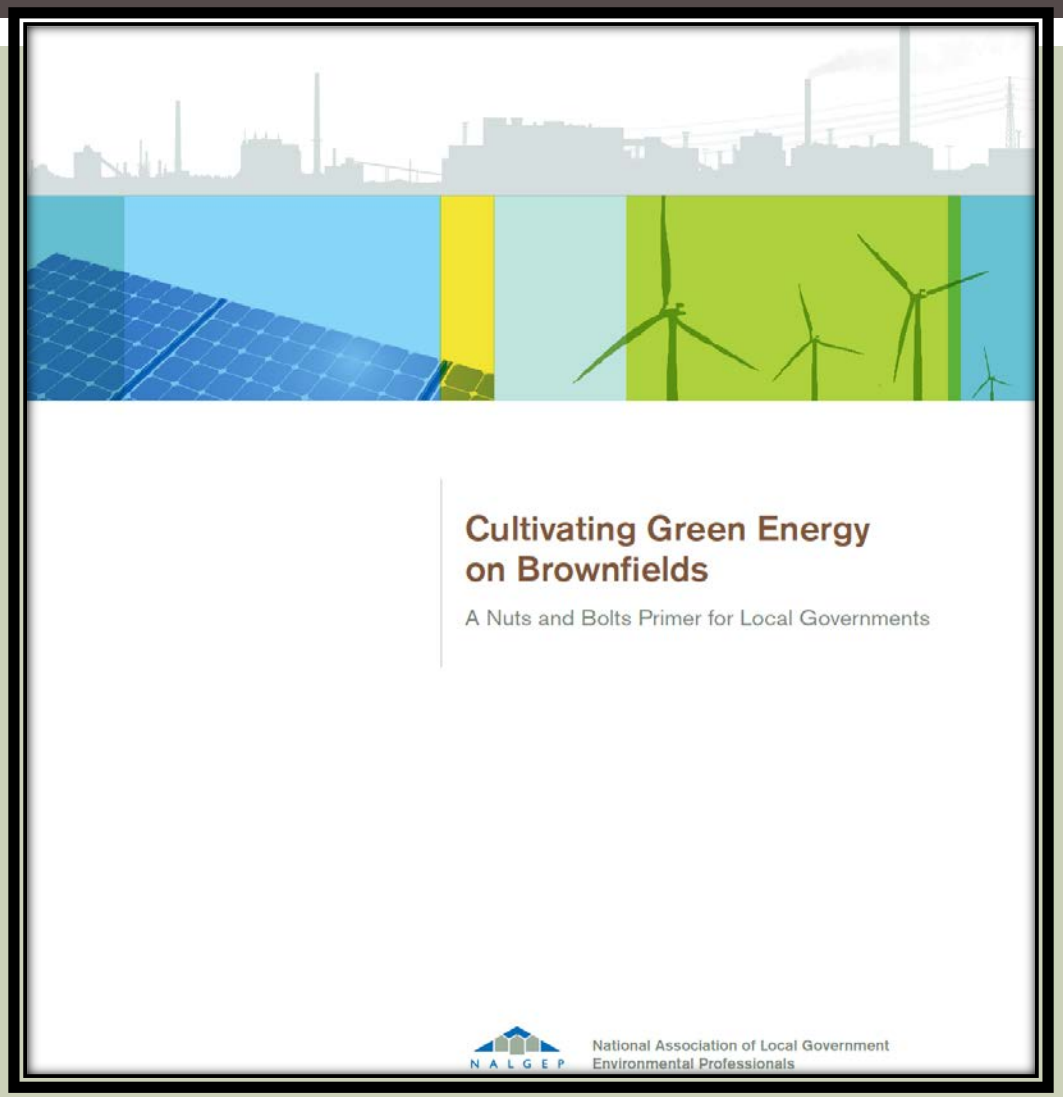
Why Site Renewable Energy Projects on Contaminated Lands?

Photo Credit: Volkswagen Group of America

Potentially contaminated lands, landfills, and mining sites offer developers a unique value proposition for renewable energy deployment.

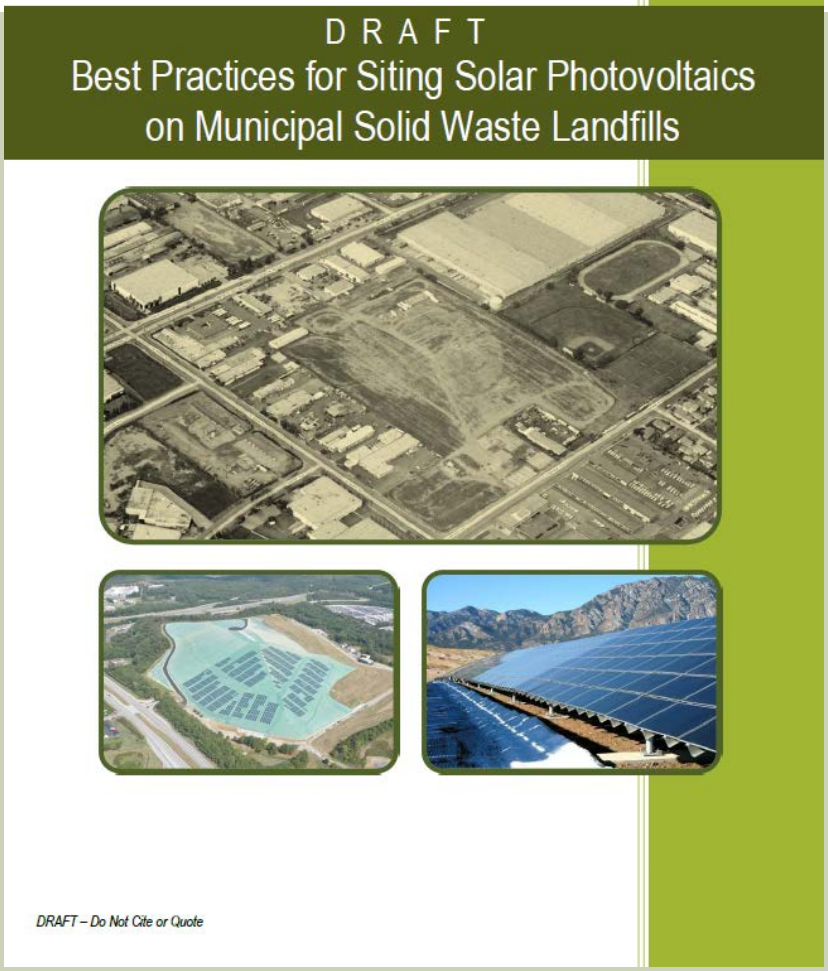
- Leverage existing infrastructure
- Reduce project cycle times through streamlined permitting and zoning
- Improve project economics with reduced land costs and tax incentives

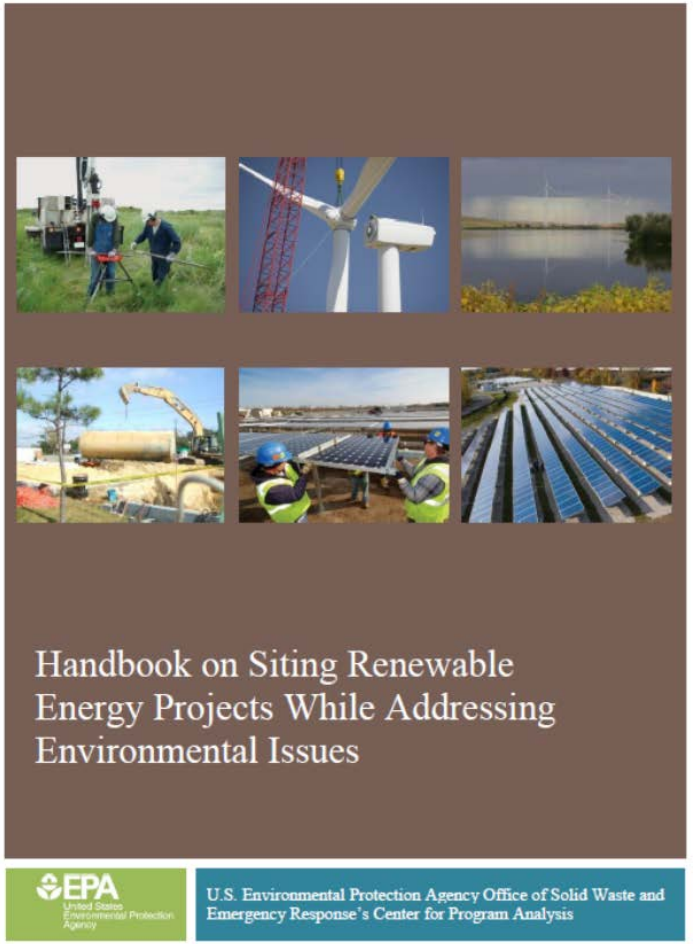
MARKET DRIVER FOR LOCAL GOVERNMENTS: RENEWABLE ENERGY ON BROWNFIELDS



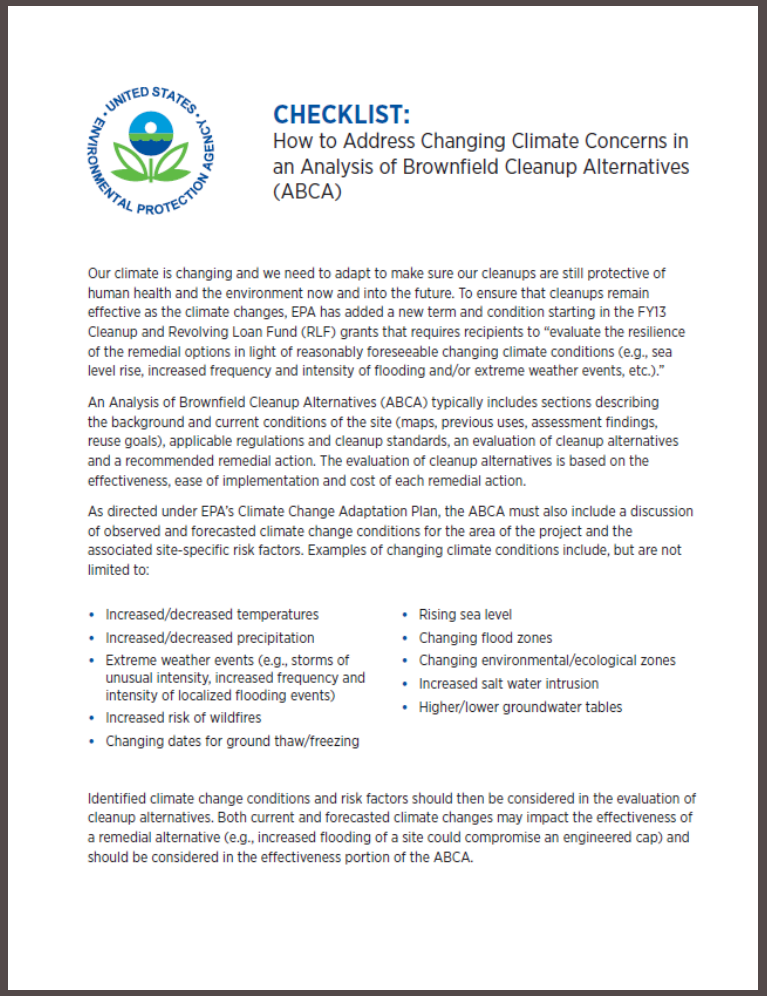
- Released by NALGEP in February 2012
- Part I: Overview of renewable energy options for Brownfield site development & references for tools and resources for site screening
- Part II: Economic feasibility of project development
- Part III: Suggestions for how local governments can promote development of renewable energy projects on Brownfield sites in their communities
- Comprehensive Appendix: Publications, links, incentives, stakeholder and industry groups

MARKET DRIVER FOR LOCAL GOVERNMENTS: RENEWABLE ENERGY ON BROWNFIELDS





INCORPORATING CLIMATE CHANGE INTO REDEVELOPMENT PROJECTS



CHECKLIST:
How to Address Changing Climate Concerns in an Analysis of Brownfield Cleanup Alternatives (ABCA)

Our climate is changing and we need to adapt to make sure our cleanups are still protective of human health and the environment now and into the future. To ensure that cleanups remain effective as the climate changes, EPA has added a new term and condition starting in the FY13 Cleanup and Revolving Loan Fund (RLF) grants that requires recipients to "evaluate the resilience of the remedial options in light of reasonably foreseeable changing climate conditions (e.g., sea level rise, increased frequency and intensity of flooding and/or extreme weather events, etc.)."

An Analysis of Brownfield Cleanup Alternatives (ABCA) typically includes sections describing the background and current conditions of the site (maps, previous uses, assessment findings, reuse goals), applicable regulations and cleanup standards, an evaluation of cleanup alternatives and a recommended remedial action. The evaluation of cleanup alternatives is based on the effectiveness, ease of implementation and cost of each remedial action.

As directed under EPA's Climate Change Adaptation Plan, the ABCA must also include a discussion of observed and forecasted climate change conditions for the area of the project and the associated site-specific risk factors. Examples of changing climate conditions include, but are not limited to:

- Increased/decreased temperatures
- Increased/decreased precipitation
- Extreme weather events (e.g., storms of unusual intensity, increased frequency and intensity of localized flooding events)
- Increased risk of wildfires
- Changing dates for ground thaw/freezing
- Rising sea level
- Changing flood zones
- Changing environmental/ecological zones
- Increased salt water intrusion
- Higher/lower groundwater tables

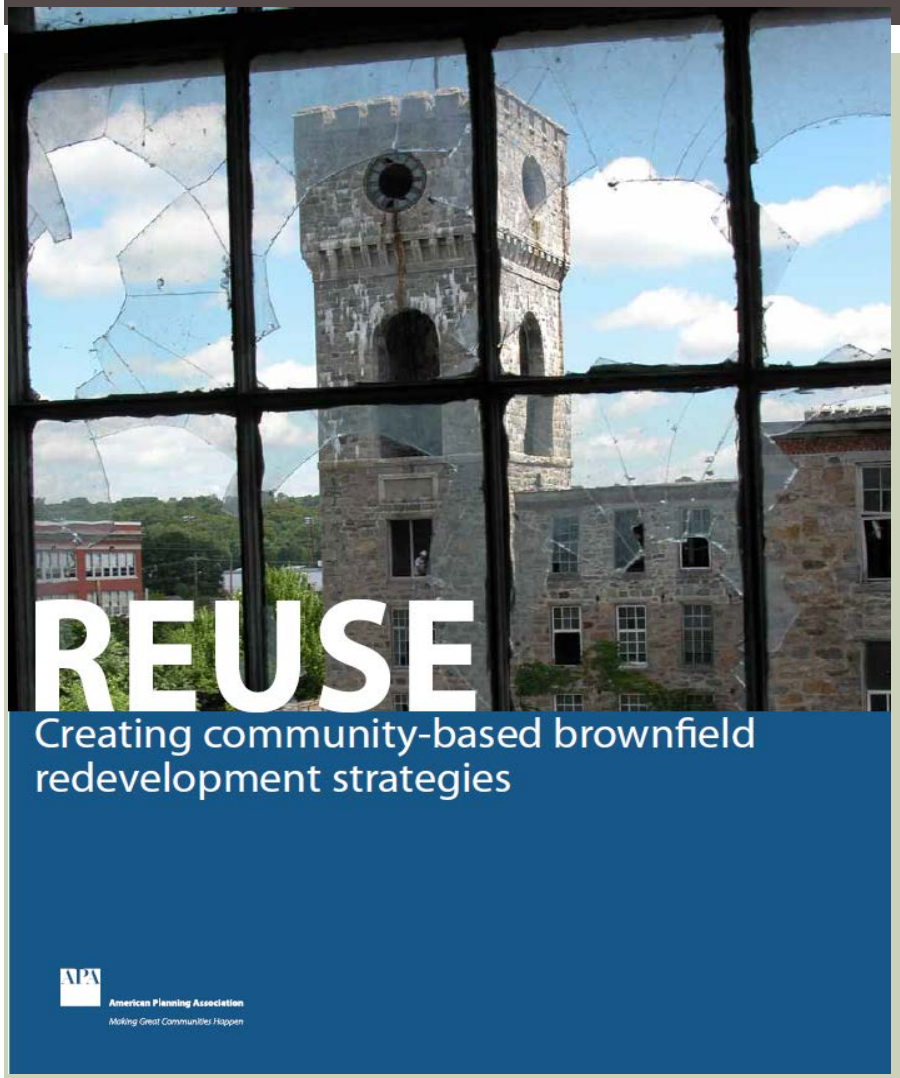
Identified climate change conditions and risk factors should then be considered in the evaluation of cleanup alternatives. Both current and forecasted climate changes may impact the effectiveness of a remedial alternative (e.g., increased flooding of a site could compromise an engineered cap) and should be considered in the effectiveness portion of the ABCA.

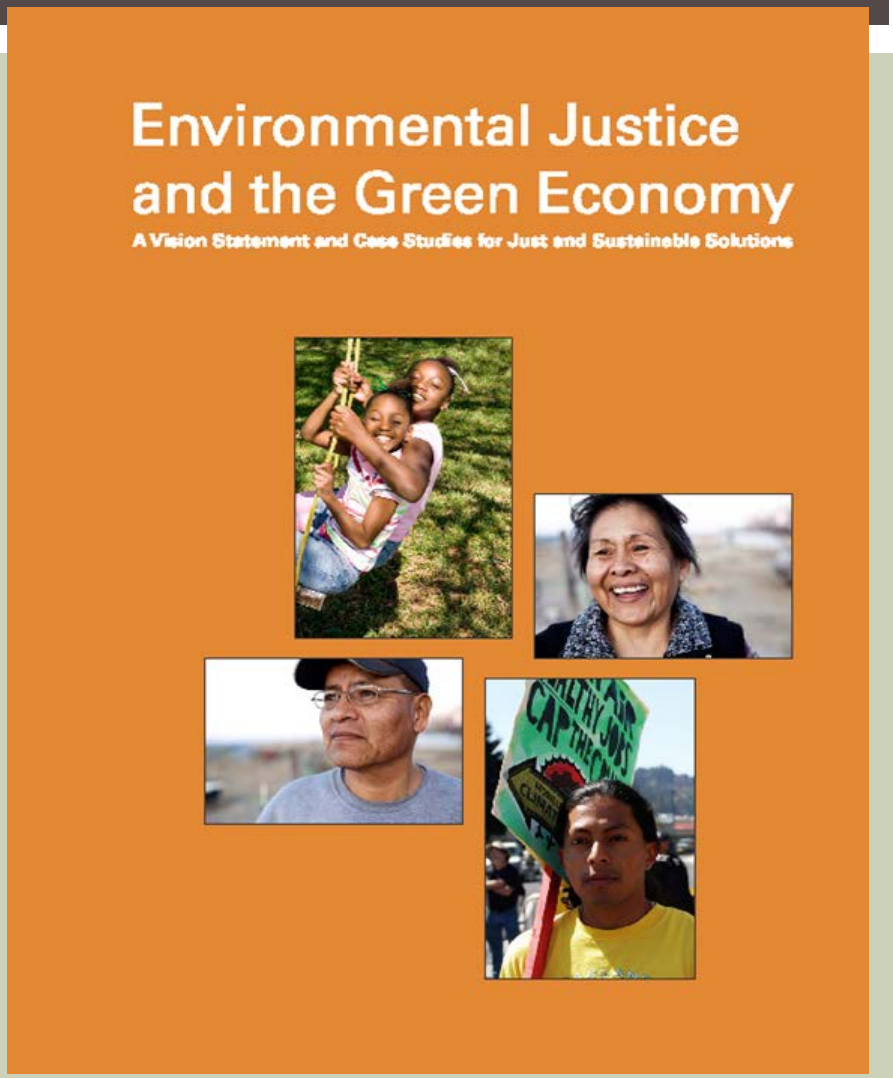
April 2014

Considerations to think about when addressing climate adaptation:

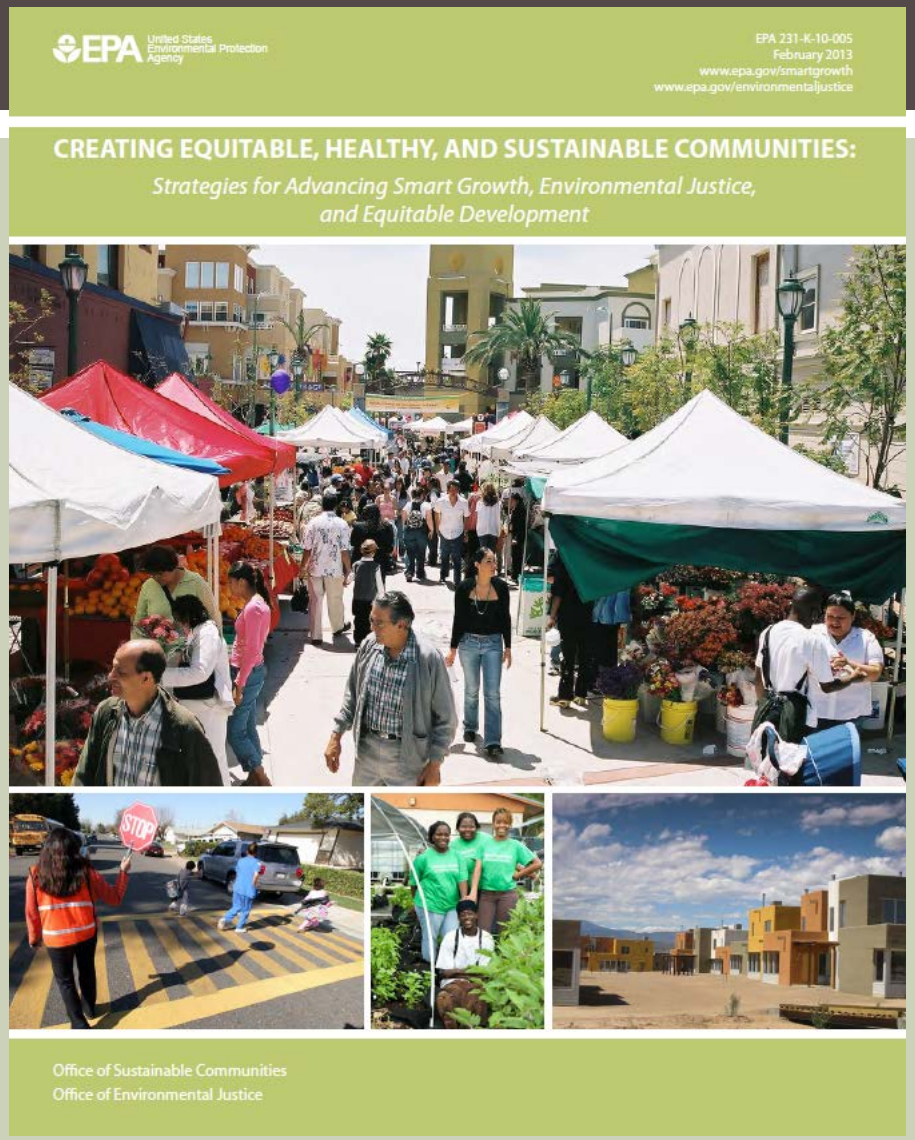
- Review an authoritative resource to identify observed and potential changing climate conditions for the area in which the cleanup project is located.
- Given the pertinent climate change concerns, identify the site-specific risk factors.
- Include in your effectiveness evaluation how well each alternative can accommodate the identified climate change risk factors.

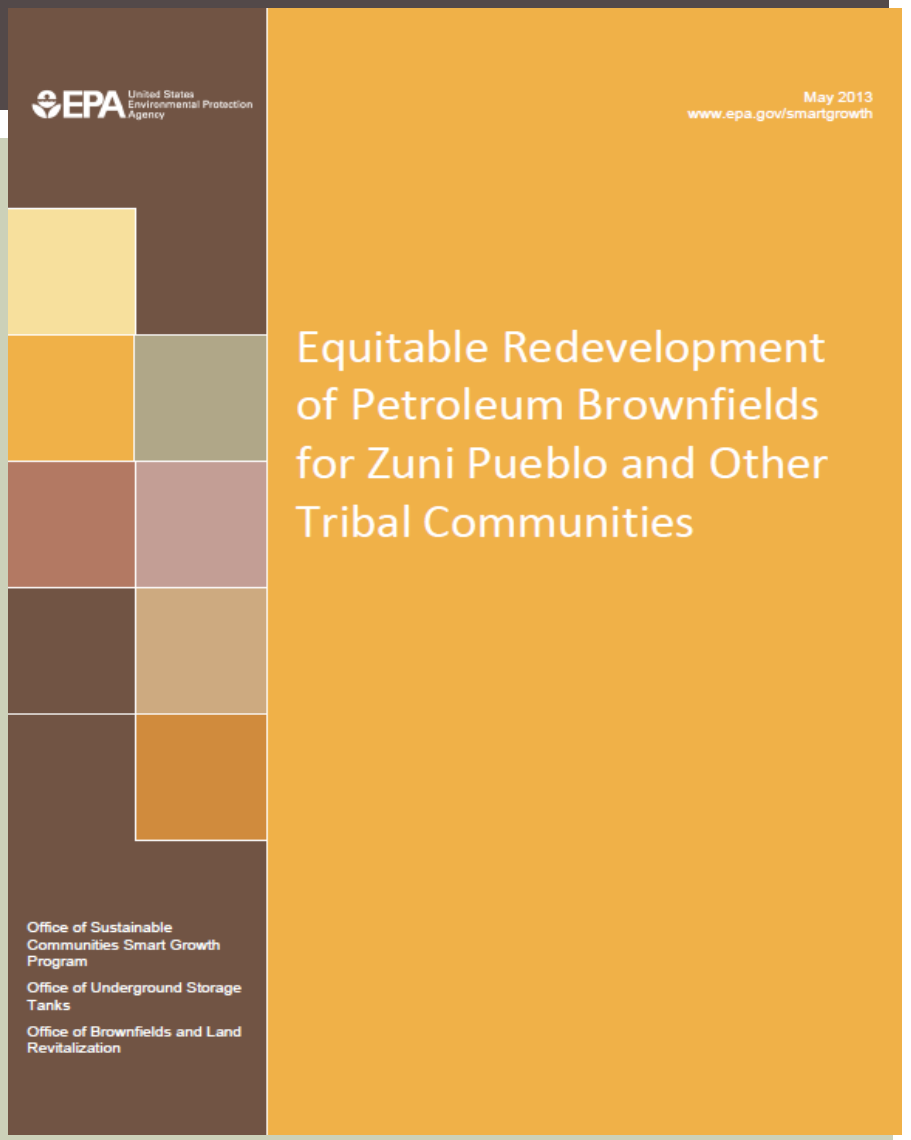
ASCENDANCY AND PRIMACY OF GRASSROOTS ORGANIZATIONS & CBOS





Proper Understanding of Brownfields Equity Creation & Its Fair Distribution among Project Stakeholders as Key to Project Acceptance and Success





Creating & Demonstrating Public Health Equity at Brownfield Sites

Improving Public Health in Brownfields Communities

Public Health

Brownfields and public health are linked in many respects. Communities may be concerned about public health including threats from potential environmental contamination, crime in or near abandoned or vacant property, and safety hazards on dilapidated properties—all issues that relate to brownfield sites. But in some cases, public health can be improved not only through assessment and cleanup of a brownfield, but through its redevelopment. Redevelopment including recreational or green space creation to encourage physical activity; community gardens and public spaces that encourage interaction, reduce the effects of heat islands, and improve storm water management; and accessible and affordable pharmacies and grocery stores—all ways to improve public health. Public health also can be enhanced when brownfields are reused by the health care sector. In communities where this type of brownfields redevelopment has occurred, the benefits are obvious: in addition to the restoration of blighted, idle land and the removal of contamination, residents now have improved access to health care, new jobs, and local economic engines that leverage additional improvements and enhance quality of life.

The Brownfields Law also provides local government brownfield communities with an opportunity to link brownfields and public health – through the provision that allows a local government to spend up to 10% of their grant to conduct monitoring the health of populations near brownfields sites that may be exposed to hazardous substances. This provision provides new opportunities for partnerships with local, state, tribal and federal health agencies and community and private sector efforts to assess, clean and revitalize brownfields, while also advancing efforts to improve public health at the community level.

Health Monitoring

In their application for an EPA Brownfields Assessment grant, the City of Portland, Maine proposed using 10 percent of the grant for health monitoring activities. After the grant was awarded in 2005, the city's

continued ▸▸

The completed Portland-Providence Health Services Facility in Portland, Oregon.

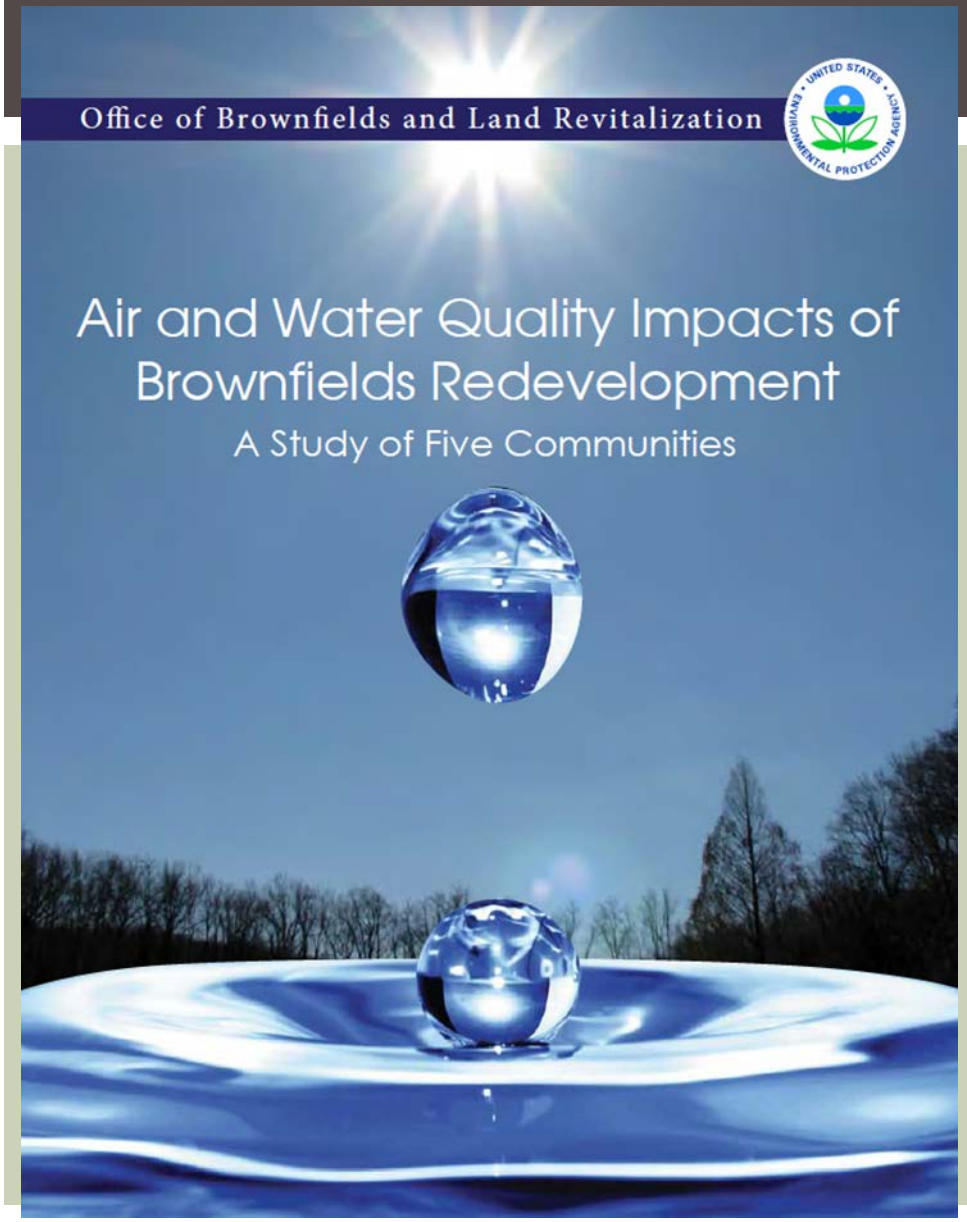
JUST THE FACTS:

- In their application, the City of Portland, Maine proposed using 10 percent of their EPA Brownfields Assessment grant for health monitoring activities. The grant was awarded in 2005.
- The designated portion of Portland's EPA grant funded lead screenings for 180 children (with the results easing community concerns about lead paint exposure), as well as an asthma surveillance study to identify areas of the city with higher incidence rates.
- The cities of St. Petersburg, Florida; Clearwater, Florida; Portland, Oregon; and Long Beach, California have all seen once-idle brownfields reused as health care centers that serve critical community needs.

In communities where brownfields are reused for public health facilities, the benefits are obvious: in addition to the restoration of blighted, idle land and the removal of contamination, residents enjoy improved access to health care, new jobs, and local economic engines that leverage additional improvements and enhance the local quality of life.

- Site Owner - City of Portland, Maine
- Site Location - Portland, Oregon
- Tools and Resources Use - EPA Brownfields Assessment Grant
- Current Use - Portland-Providence Health Services Facility

Creating & Demonstrating Public Health Equity at Contaminated Sites



Air and Water Quality Impacts of Brownfields Redevelopment

United States Environmental Protection Agency
Office of Solid Waste and Emergency Response (5101T)
EPA 560-F-10-233
April 2011

This fact sheet describes an approach to quantifying the environmental impacts of Brownfields reuse and provides estimates of impacts on air and water quality of multiple revitalization projects in five municipal regions. [1]

Overview

A number of previous studies compared the environmental performance of specific brownfield redevelopments with similar projects built on undeveloped greenfield sites. These studies examined single brownfield/infill developments and entailed extensive site-specific analysis. The comparison sites generally accommodated the same number of residential units and commercial square footage, but typically occupied more acreage per employee or residence and were less location efficient. A review of 12 of these studies concluded that brownfield/infill development results in significant environmental benefits when compared to their greenfield counterparts. However, making broader quantitative assessments applicable to brownfield redevelopment around the country requires a methodology that is more easily transferable. This study tests an analytical approach to quantifying the environmental impacts of multiple redevelopment projects in a given municipal area in a manner that can be replicated in other regions. The method was applied to five cities and their surrounding areas—Seattle, WA, Baltimore, MD, Minneapolis-St. Paul, MN, Emeryville, CA, and Dallas-Fort Worth, TX.

Study Approach

For each of the five cities, all known brownfield sites that benefited from U.S. EPA Brownfields Program assistance and that have redevelopment completed or under way were identified. Most of these properties are in close-in, high density areas. The study also identified alternative development locations for each of the brownfield sites, based on prevailing development trends in the area. That is, it was assumed that had the development not occurred on the brownfield, it would have gone to these locations. The environmental performance of both sets of locations were measured and compared, using metrics such as vehicle use per capita, air pollutant emissions per capita, personal vehicle energy use per capita, and stormwater runoff and pollutant loads. The environmental performance measures were developed with data from regional transportation demand models, a watershed management model, and INDEX, a geographical information system (GIS)-based analytical tool. [2,3]

Development on suburban/exurban sites consumes more acreage per resident or employee than urban core project areas. Most but not all of the alternative sites were located outside the urban core. The study assumed that these projects were sited on greenfields and would require 2-4 times the acreage typically used for development on brownfield sites. This assumption, believed to be conservative, is derived from factors drawn from literature on land use patterns by type of use as well as experience in the Puget Sound area. Nearly all alternative locations identified for this study would require more land to accommodate the same type of development on brownfield sites.

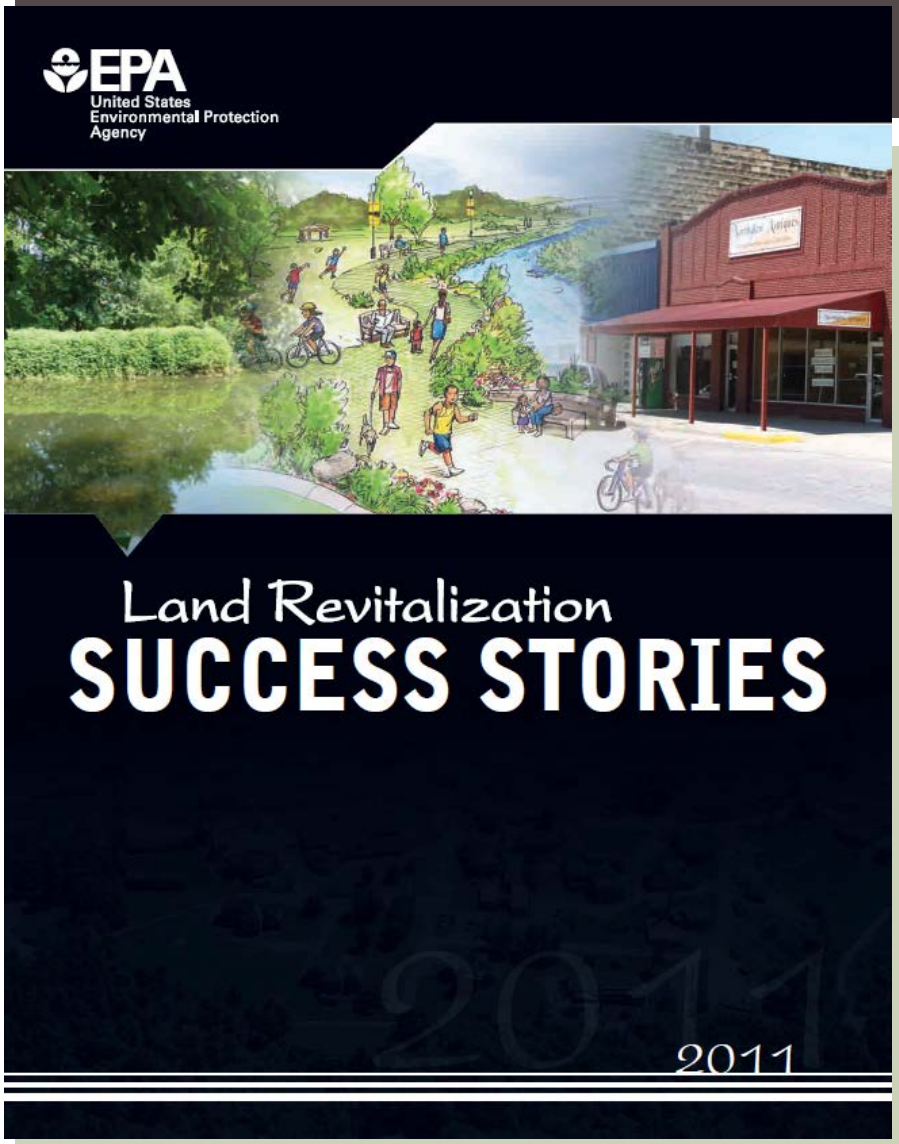
Five Municipal Areas Included in Study

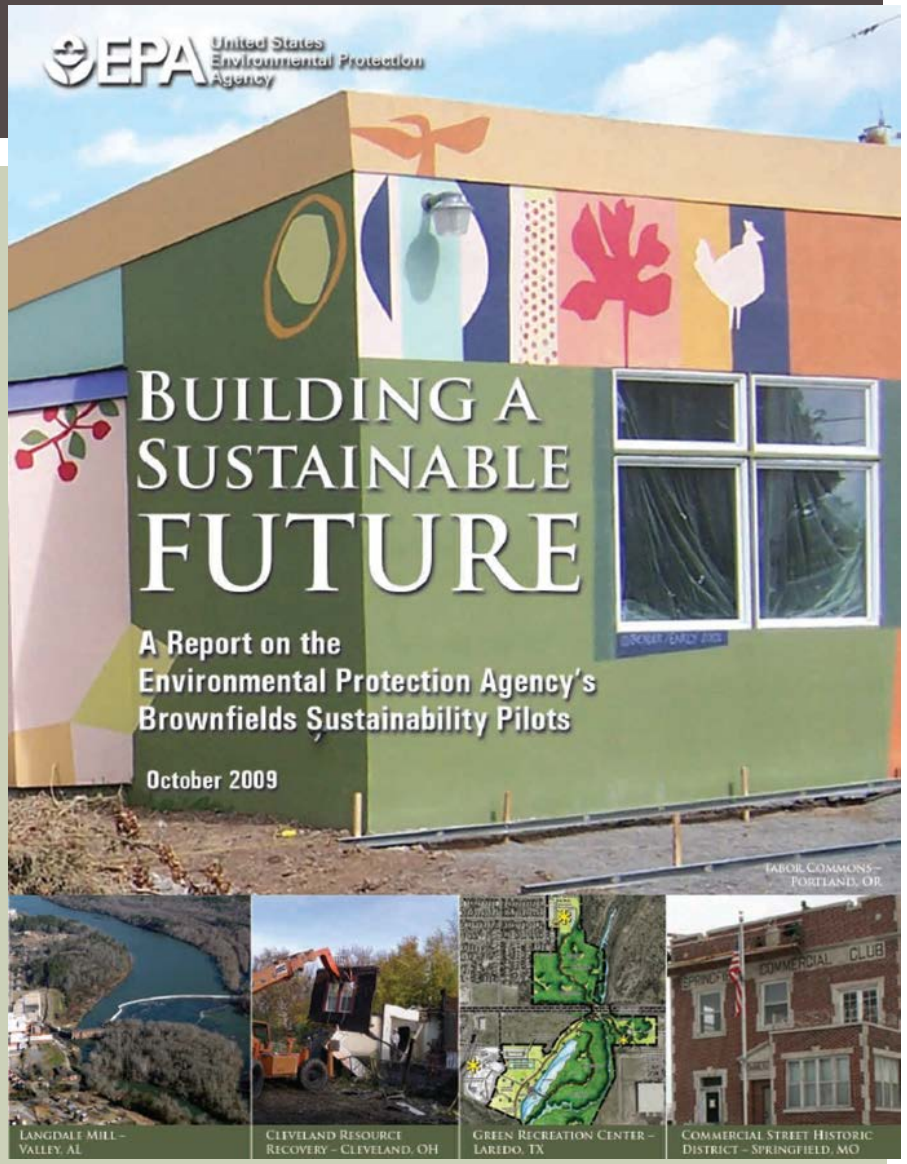
The five municipal areas (see table) were selected based on several factors, including: the existence of a significant number of brownfield properties that met the aforementioned criteria, the availability of information about the status of redevelopment on the brownfield sites, the availability of data that could be used as indicators of local environmental performance, and ecoregion stratification to provide precipitation profile diversity for the stormwater analysis.

Municipal Areas Studied

City	No. of Brownfield Properties	Brownfield Acreage	Planning Area	Population in Planning Area (millions)
Seattle	25	87	4-county area	3.6
Minneapolis-Saint Paul	37	80	7-county area	2.9
Emeryville	39	183	9-county area	5.1
Baltimore	37	322	5 counties & Baltimore City	2.5
Dallas-Ft. Worth	25	266	12-county area	6.5
Total	163	938		

PUTTING IT TOGETHER: DESIGN AND PLANNING CASE STUDIES





PUTTING IT TOGETHER: STATE AND LOCAL CASE STUDIES

FLORIDA
BROWNFIELDS
REDEVELOPMENT
PROGRAM

ANNUAL REPORT
July 2013 - June 2014

Former
Manatee Hotel

Historic
BRADENTON
Hampton Inn and Suites

Miami-Dade County's Brownfields Program

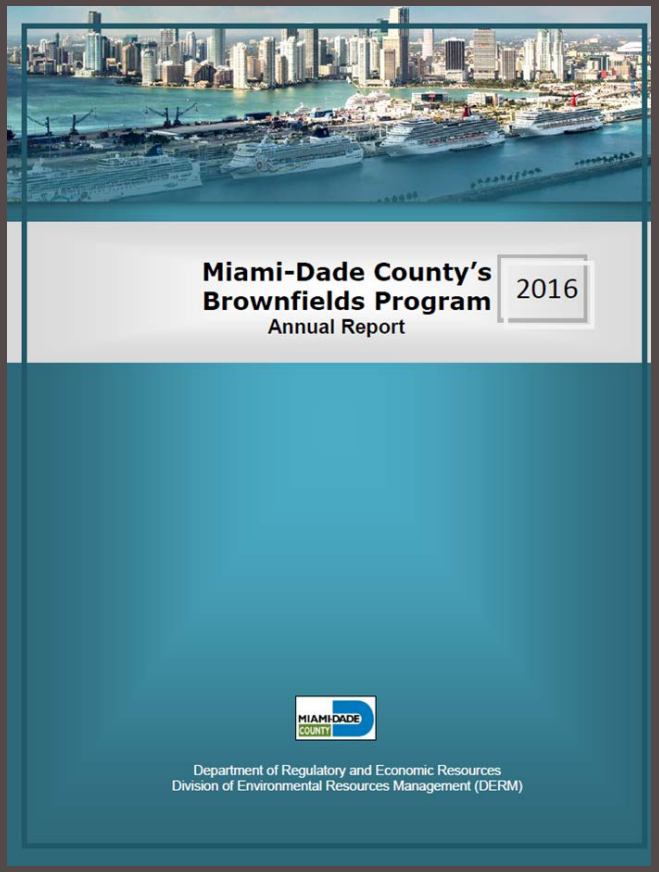
Annual Report

June 1, 2014

Department of Regulatory and Economic Resources
Division of Environmental Resources Management (DERM)

MIAMI-DADE COUNTY

COMMUNITY MEETING FOR NW 58TH STREET GREEN REUSE AREA CORRIDOR DESIGNATION PURSUANT TO SECTION 376.80(2)(A), FLORIDA STATUTES (2017)



Part II: Economic Incentives

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Doral City Hall
Doral, FL
October 18, 2017

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM

BEST MANAGEMENT PRACTICES FOR CONTAMINATED SITE REDEVELOPMENT – UNDERSTANDING/LEVERAGING ENVIRONMENTAL BASED ECONOMIC INCENTIVES

- Develop fluency with financial tools that exist at federal and state level to subsidize redevelopment and cleanup at contaminated redevelopment sites
  - Or develop relationship with consultant that has such fluency and with whom you can team
- Voluntary Cleanup Tax Credit
  - Engineering Control "Construction Windfall"
- Brownfield Job Bonus
- Sales Tax Refund on Construction Materials for Affordable Housing
- Brownfield State Response Grants for Government Entities and Not-for-Profits

FLORIDA BROWNFIELDS REDEVELOPMENT PROGRAM

TRANSFORMING COMMUNITIES

Brownfield site means real property, the expansion, redevelopment or reuse of which may be complicated by actual or perceived environmental contamination. 376.79(3), F.S.

Brownfield area means a contiguous area of one or more brownfield sites, some of which may not be contaminated, and which has been designated by a local government by resolution. Such areas may include all or portions of community redevelopment areas, enterprise zones, empowerment zones, other such designated economically deprived communities and areas, and Environmental Protection Agency-designated brownfield pilot projects. 376.79(4), F.S.

Brownfields Program Process

- BROWNFIELD AREA DESIGNATION — By Local Government
- IDENTIFICATION OF RESPONSIBLE PERSON
- EXECUTION OF CLEANUP AGREEMENT
- IMPLEMENTATION OF CONTAMINATED SITE CLEANUP
- "NFA" LETTER FROM DEP

BROWNFIELD PROGRAM TERMS

Responsible Person—Person Responsible for Brownfield Site Rehabilitation or PRFBSR

Agreement—Brownfield Site Rehabilitation Agreement or BSRA

NFA—No Further Action (i.e., Site Rehabilitation Completion Order or SRCO)

BROWNFIELDS PROGRAM BENEFITS

Brownfield Area Designation

- Loan guarantees for primary lenders
  - Up to 50% on all sites
  - Up to 75% when end use is affordable housing or health care

The following Brownfield Area benefits are available to sites with a BSRA or properties that abut a property with a BSRA.

- Bonus refund for job creation—up to $2,500 per job
- Sales tax refund on building materials for affordable housing
- Brownfield area benefits administered by Department of Economic Opportunity and Department of Revenue

Brownfield Site Rehabilitation Agreement (BSRA)

- All benefits of Brownfield Area
- Regulatory framework for cleanup (Chapter 62-785, F.A.C.)
- Dedicated staff—expedited technical review
- Liability protection
- Tax credits
  - Florida corporate income tax
  - Credits may be transferred one time
- Brownfield Site Rehabilitation Agreement benefits administered by DEP

Summary of Available Tax Credits

Tax Credit Type	Application Frequency	Maximum Credit for Costs Incurred after 6/30/06	
Site Rehabilitation	Annually	50%	$500,000
No Further Action (i.e. SRCO)	Once	25%	$500,000
Affordable housing, health care facility or healthcare provider	Once	25%	$500,000
Solid Waste (Removal, Transport, and Disposal)	Once	50%	$500,000

FDEP BROWNFIELDS PROGRAM ONE-PAGE FACT SHEET

KEY FUNDING RESOURCE – VOLUNTARY CLEANUP TAX CREDITS

Tax Credit Type	Application Frequency	Maximum Credit for Costs Incurred after 12/31/2007	
Site Rehabilitation	Annually	50%	$500,000
No Further Action (i.e., SRCO)	Once	25%	$500,000
Affordable Housing	Once	25%	$500,000
Health Care Facility or Provider	Once	25%	$500,000
Solid Waste	Once	50%	$500,000

VOLUNTARY CLEANUP TAX CREDIT PROGRAM
3 SCENARIOS – MONETIZATION
(WITH & WITHOUT BONUSES)

Monetization of Voluntary Cleanup Tax Credits for Generic Florida Brownfield Redevelopment Project
75% Realization

Cleanup Scenarios	Total Eligible Cleanup Costs	Total Tax Credit Estimate	Secondary Market Yield	Total Cash Dollars Recovered	As % of Total Costs
Scenario 1	$450,000.00	$337,500.00	$0.88/$1.00	$297,000.00	66%
Scenario 2	$650,000.00	$487,500.00		$429,000.00	
Scenario 3	$1,400,000.00	$1,050,000.00		$924,000.00	

Monetization of Voluntary Cleanup Tax Credits for Generic Florida Brownfield Redevelopment Project
100% Realization

Cleanup Scenarios	**Total Eligible Cleanup Costs**	**Total Tax Credit Estimate**	**Secondary Market Yield**	**Total Cash Dollars Recovered**	**As % of Total Costs**
Scenario 1	$450,000.00	$450,000.00	$0.88/$1.00	$396,000.00	88%
Scenario 2	$650,000.00	$650,000.00		$572,000.00	
Scenario 3	$1,400,000.00	$1,400,000.00		$1,232,000.00	

Development Cost "Windfall" from Monetization of Voluntary Cleanup Tax Credits for Generic Florida Brownfield Redevelopment Project at 75% and 100% Realization

Total Eligible Cleanup Costs	**Development Increment**	**Recovery Percentage**	**Total Tax Credit Estimate**	**Secondary Market Yield**	**Total Cash Dollars Recovered**	**As % of Total Cleanup Costs**
$1,400,000.00	$750,000.00	75%	$562,500.00	$0.88/$1.00	$495,000.00	35.63%
$1,400,000.00	$750,000.00	100%	$750,000.00	$0.88/$1.00	$660,000.00	47.14%

BUYERS OF VOLUNTARY CLEANUP TAX CREDITS

Analysis of Florida Voluntary Tax Credit Program Tax Credit Transferees as of August 2016				
Company	**Total Amount Transferred (As of August 2016)**	**Number Applications Transferred (As of August 2016)**	**Date of First Transfer**	**Date of Last Transfer**
Nestle Holdings, Inc.	$4,796,263.01	23	8/4/2010	9/2/2015
U.S. Bank National Association	$3,987,417.89	25	11/24/2015	12/28/2015
Transitions Optical, Inc.	$3,970,275.49	26	2/9/2007	9/17/2012
NIMCO US, Inc.	$3,244,956.82	14	6/23/2013	6/13/2016
The Sherwin Williams Co.	$3,208,069.51	32	8/15/2007	11/25/2015
Nordstrom, Inc.	$2,109,815.61	17	8/10/2012	10/8/2015
DISH DBS Corporation	$1,661,049.53	21	7/21/2011	5/26/2015
SWIMC, Inc.	$1,362,749.88	7	10/5/2014	10/8/2015
Tiffany and Company	$1,173,150.56	3	11/25/2015	
Bloomingdales, Inc.	$1,121,303.63	12	9/13/2013	10/8/2015

VOLUNTARY CLEANUP TAX CREDITS AWARDED TO LOCAL GOVERNMENT ENTITIES (JANUARY 2017)

Florida Voluntary Cleanup Tax Credit Awards Local Government Entities Only As of August 2016	
Government Entity	**Total Amount Awarded**
City of Orlando	$2,598,605.87
Fort Pierce Redevelopment Agency	$1,597,140.19
Jacksonville Electric Authority	$1,489,181.49
Tampa Port Authority	$1,114,363.62
City of Clearwater	$1,005,914.69
City of Gainesville	$769,323.47
City of Pompano Beach	$664,588.70
Pinellas County	$610,648.88
Escambia County Board of County Commissioners	$554,872.02
City of Tampa	$550,075.86
City of Daytona Beach	$504,323.36
City of Doral	$500,000.00
City of Tallahassee	$367,717.41
City of St. Petersburg	$263,281.55
City of Winter Garden	$218,587.47
Seminole County School Board	$196,387.71
Delray Beach Community Redevelopment Agency	$143,537.73
City of Casselberry	$113,587.67
City of Pahokee	$83,292.24
Collier County Community Redevelopment Agency	$80,938.13
Community Redevelopment Agency for the City of Plant City	$26,887.67
City of North Miami Beach	$13,996.27
City of St. Petersburg Beach	$6,054.07
Total Amount Awarded	**$13,473,306.07**

- 109 tax credit certificates in the total amount of $13,473,306.07 awarded to local government entities.
- 23 local government entities have been awarded tax credit certificates since the program began in 1999.
- Of these 23 local government entities, 14 are cities; 4 are community redevelopment agencies; 3 are classified as other entities (Jacksonville Electric Authority, Seminole County School Board, and Tampa Port Authority); and 2 are counties.
- The local government entities that have been awarded the largest number of tax credit certificates are as follows:
  - City of Orlando (13)
  - Jacksonville Electric Authority (12)
  - City of Clearwater (10)
  - City of Daytona Beach (10)
  - Escambia County (9)
- The local government entities that have been awarded the highest total awards over time are as follows:
  - City of Orlando ($2,598,605.87)
  - Fort Pierce Redevelopment Agency ($1,597,140.19)
  - Jacksonville Electric Authority ($1,489,181.49)
  - Tampa Port Authority ($1,114,363.62)
  - City of Clearwater ($1,005,914.69)

VOLUNTARY CLEANUP TAX CREDIT PROGRAM VERY (TOO?) POPULAR

- Current Annual Appropriation: $5 million for all applications
- Current Backlogged Amount: $10 million
- Current Backlog Duration: 2 – 3 years
- Pending Legislation
  - One time appropriation of $20 million
  - Increase annual appropriation to $10 million
- Senate Bill 1018 (Grimsley)
- House Bill 753 (Stone)

VOLUNTARY CLEANUP TAX CREDIT PROGRAM TOOLS TO MAXIMIZE ROI

www.dep.state.fl.us/waste/categories/vctc/default.htm

Florida Department of Environmental Protection

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Petroleum Restoration
Waste Cleanup

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Rules

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Agency Site Map
Division Site Map

Voluntary Cleanup Tax Credit

In 1998, the Florida Legislature created the Voluntary Cleanup Tax Credit (VCTC) to encourage participants to conduct voluntary cleanup of certain drycleaning solvent contaminated sites and brownfield sites in designated brownfield areas. Participants may be private or public entities, but they must meet the eligibility criteria established under Sections 376.3078, 376.30781, and 376.82, F.S, as applicable, and they must enter into either a Voluntary Cleanup Agreement, for drycleaning solvent cleanup, or a Brownfield Site Rehabilitation Agreement. Tax credit certificates are awarded by the Florida Department of Environmental Protection from an annual $5 million authorization and are valid against Florida Corporate Income Tax. Tax credit awards in excess of $5 million for any given fiscal year are issued from the next available tax credit authorization. The table below summarizes the available types of tax credits. Please see Section 376.30781, F.S., for more detailed information.

	Tax Credit Type				
	Site Rehabilitation	**Site Rehabilitation Completion Order (NFA) Bonus**	**Affordable Housing Bonus**	**Health Care Bonus**	**Solid Waste**
Application Frequency	Annually	Once	Once	Once	Once
Maximum Credit for Costs Incurred and Paid from 07/01/1998 to 06/30/2006	35%; $250,000	10%; $50,000	N/A	N/A	N/A
Maximum Credit for Costs Incurred and Paid after 06/30/2006	50%; $500,000	25%; $500,000	25%; $500,000	N/A	50%; $500,000
Maximum Credit for Costs Incurred and Paid after 12/31/2007	50%; $500,000	25%; $500,000	25%; $500,000	25%; $500,000	50%; $500,000

Application Deadline: For site rehabilitation applications, the annual application deadline is January 31 (or the following business day if January 31 falls on a weekend) of the year following the calendar year for which an applicant is claiming site rehabilitation costs. Therefore, all site rehabilitation costs incurred during 2015 must be claimed in an application submitted to the Division of Waste Management by January 31, 2016. No prior year costs can be claimed in an annual site rehabilitation tax credit application.

For additional information, please contact Scott Sweeney (Scott.L.Sweeney@dep.state.fl.us or 850-245-8958)

Highlights

VCTC APPLICATION

CPA GUIDELINES

- VCTC Main Page
- VCTC Backlog
- FAQ's
- Publications
- Rules & Related Laws
- Site Rehabilitation Completeness Checklist
- Solid Waste Removal Completeness Checklist

Related Links

- Brownfields Redevelopment Program
- Florida Department of Revenue
- Florida Drycleaning Solvent Cleanup Program

KEY FUNDING RESOURCE FOR AFFORDABLE HOUSING CONSTRUCTION IN DESIGNATED BROWNFIELD AREA

Potential Scenarios for Sales Tax Refund on Eligible Building Materials
for Low and Moderate Income Construction on Brownfield Sites and in Brownfield Areas
Prepared by The Goldstein Environmental Law Firm, P.A.

Total Construction Budget	% as Eligible Building Materials	Total Eligible Building Materials Cost	Potential Refund on Average Sales Tax of 6.00%		
			100% Recovery	85% Recovery	70% Recovery
$30,000,000.00	30%	$9,000,000.00	$540,000.00	$459,000.00	$378,000.00
$30,000,000.00	25%	$7,500,000.00	$450,000.00	$382,500.00	$315,000.00
$30,000,000.00	20%	$6,000,000.00	$360,000.00	$306,000.00	$252,000.00
$50,000,000.00	30%	$15,000,000.00	$900,000.00	$765,000.00	$630,000.00
$50,000,000.00	25%	$12,500,000.00	$750,000.00	$637,500.00	$525,000.00
$50,000,000.00	20%	$10,000,000.00	$600,000.00	$510,000.00	$420,000.00
$75,000,000.00	30%	$22,500,000.00	$1,350,000.00	$1,147,500.00	$945,000.00
$75,000,000.00	25%	$18,750,000.00	$1,125,000.00	$956,250.00	$787,500.00
$75,000,000.00	20%	$15,000,000.00	$900,000.00	$765,000.00	$630,000.00

KEY FUNDING RESOURCE FOR JOB CREATION (FULL TIME EQUIVALENTS) IN DESIGNATED BROWNFIELD AREA

Job Creation Tax Refund Generation Scenarios Qualified Target Industry Bonus vs. Stand-Alone Refund		
FTEs	x $2,000 (QTI)	x $2,500 (Stand-Alone)
100	$200,000	$250,000
200	$400,000	$500,000
300	$600,000	$750,000
400	$800,000	$1,000,000

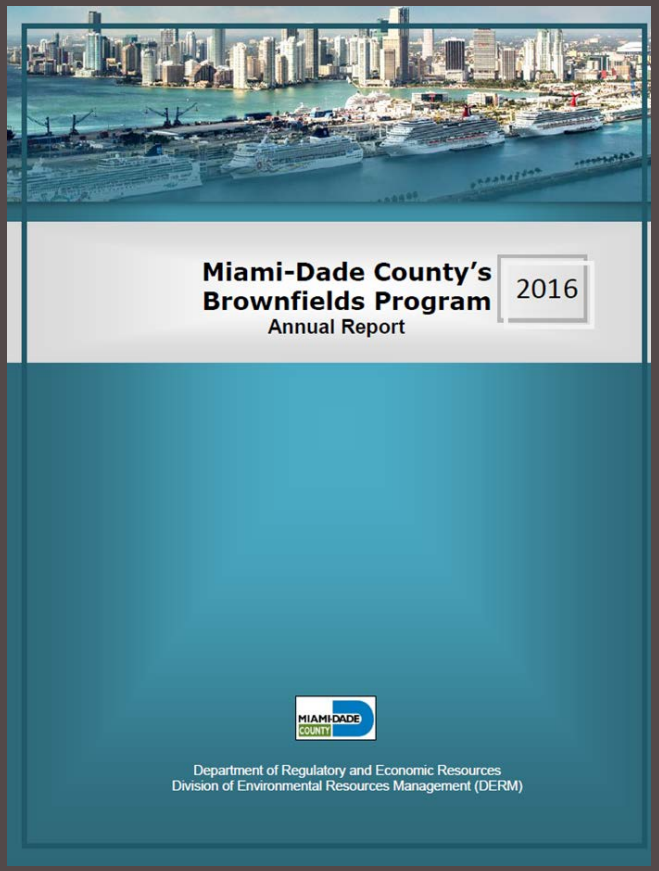
Job Creation Tax Refund Payment Scenarios for Every 200 FTEs (Stand-Alone Refund)								
FTE Scenarios	Total FTEs	Total Refund	Tax Refund Payment					
			2017	2018	2019	2020	2021	2022
Scenario 1	200 FTEs in 2017	$500,000	$0.00	$125,000	$125,000	$125,000	$125,000	$0.00
Scenario 2	100 FTEs in 2017	$250,000	$0.00	$62,500	$62,500	$62,500	$62,500	$0.00
	100 FTEs in 2018	$250,000	$0.00	$0.00	$62,500	$62,500	$62,500	$62,500
Totals for Scenario 2		$500,000	$0.00	$62,500	$125,000	$125,000	$125,000	$62,500

BROWNFIELD STATE/TRIBAL RESPONSE GRANTS

- State and Tribal Response Grant
  - EPA funding
  - Administered by FDEP
- Independent of the Florida Brownfields Program
- Grant of services, performed by FDEP contractors
  - Up to $200,000 for assessment tasks
  - Up to $200,000 for remediation tasks (source removal)
- Eligibility considerations
  - Meet federal definition of brownfield
  - Applicant did not cause or contribute to contamination
  - No viable responsible party
  - Project provides public benefit
  - Applicant has willingness and ability to complete project

- Slide Source: FDEP

COMMUNITY MEETING FOR NW 58TH STREET GREEN REUSE AREA CORRIDOR DESIGNATION PURSUANT TO SECTION 376.80(2)(A), FLORIDA STATUTES (2017)



Part III: Designation Process

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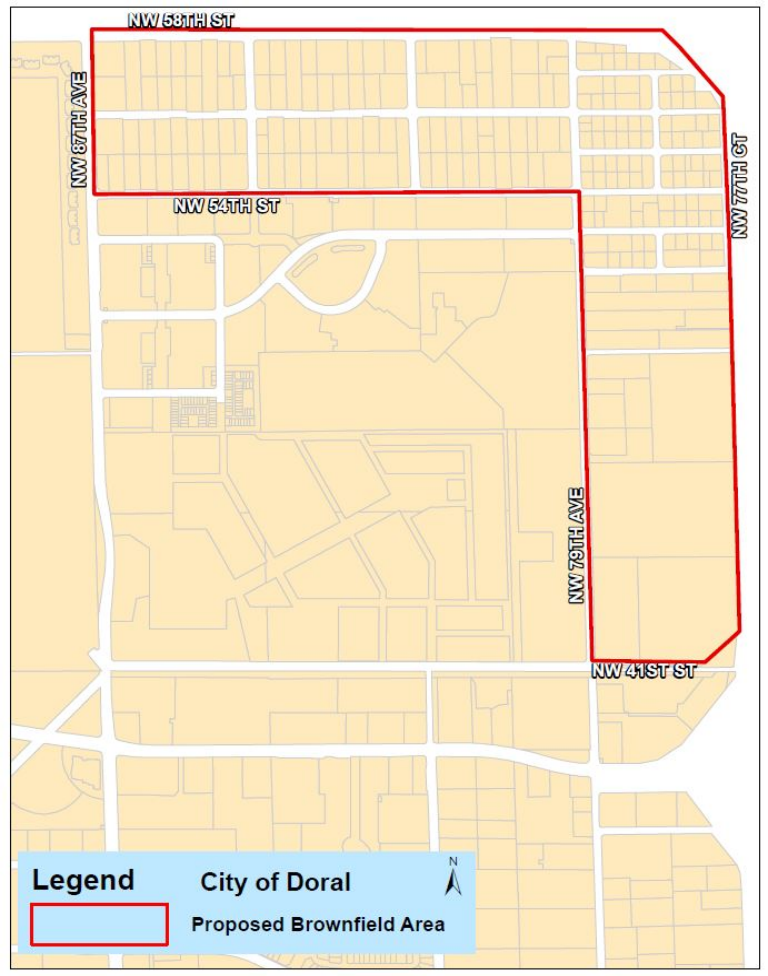
Doral City Hall
Doral, FL
October 18, 2017

THE GOLDSTEIN ENVIRONMENTAL LAW FIRM

AREA TO BE DESIGNATED

- The proposed area (the "Subject Area") is south of NW 58 Street to NW 54 Street, east of the intersection of NW 87 Avenue and NW 58 Street to SR 826, and east between NW 79 Avenue and SR 826 to its southern extent on NW 41 11 Street.

- Size: Approximately 258 acres



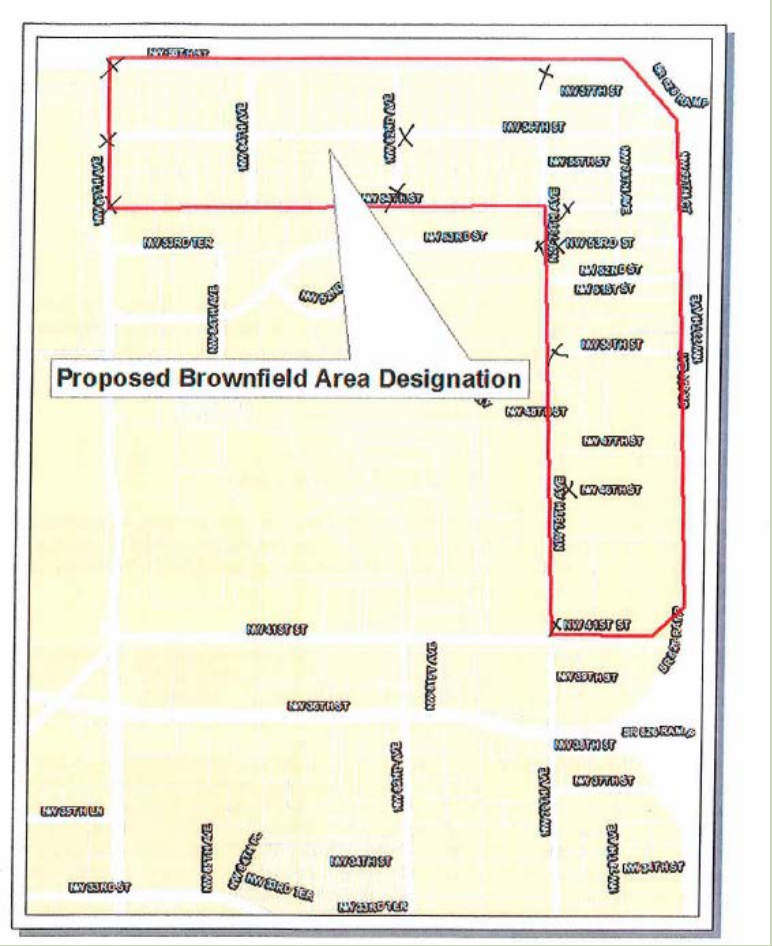
ADOPTION BY RESOLUTION

RESOLUTION NO. 17-__

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF DORAL, FLORIDA, MAKING CERTAIN FINDINGS AND DESIGNATING A PORTION OF SECTION 22 OF THE CITY OF DORAL GEOGRAPHICAL BOUNDARIES FROM SOUTH OF NW 58 STREET TO NW 54 STREET, EAST OF THE INTERSECTION OF NW 87 AVENUE AND NW 58 STREET TO SR 826, SOUTH BETWEEN NW 79 AVENUE AND SR 826 TO NW 41 STREET, AS MORE FULLY DEPICTED ON THE MAP BELOW, AS A GREEN REUSE AREA PURSUANT TO SECTION 376.80(2)(A), FLORIDA STATUTES, OF FLORIDA'S BROWNFIELD REDEVELOPMENT ACT FOR THE PURPOSE OF ENVIRONMENTAL REHABILITATION, JOB CREATION AND PROMOTING ECONOMIC REDEVELOPMENT; AUTHORIZING THE CITY CLERK TO NOTIFY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION OF SAID DESIGNATION; PROVIDING FOR AN EFFECTIVE DATE AND FOR ALL OTHER PURPOSES.

PUBLIC NOTICE & PUBLIC HEARINGS

- POSTING WITHIN THE DESIGNATED AREA
- COUNCIL MEETING ANNOUCEMENT
  - SEPTEMBER 27, 2017
- COMMUNITY BULLETIN
  - CITY WEBSITE
- COMMUNITY MEETING
  - OCTOBER 18, 2017
- PUBLIC HEARINGS
  - OCTOBER 25, 2017
  - NOVEMBER 17, 2017



DESIGNATION CRITERIA
SECTION 376.80(2)(A), FLORIDA STATUTES (2017)

- Whether the brownfield area warrants economic development and has a reasonable potential for such activities

- Whether the proposed area to be designated represents a reasonably focused approach and is not overly large in geographic coverage

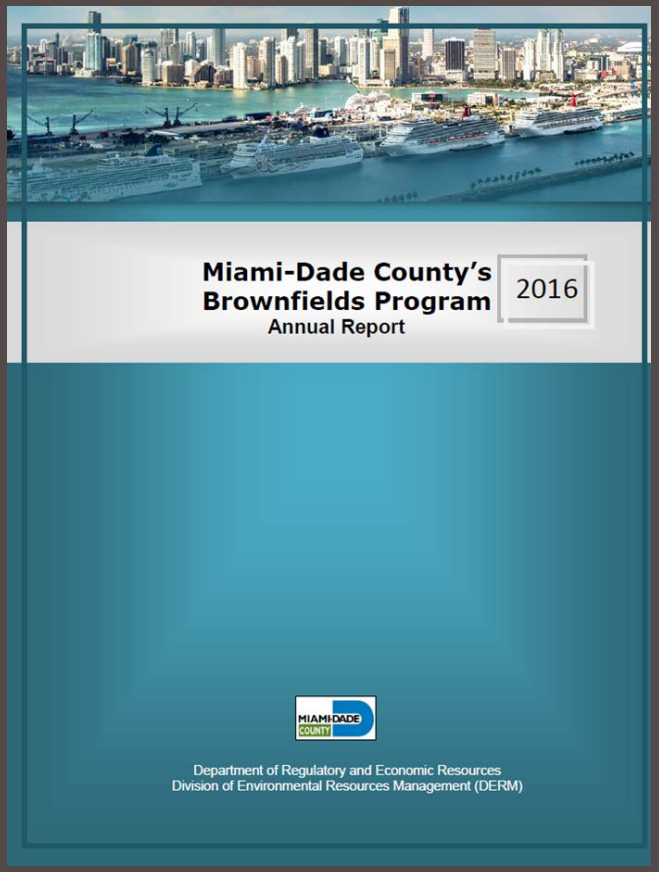
Table 1 - Analysis of Designated Brownfield Areas in Florida by Acreage Range (Based on FDEP Brownfield Area Monthly Status Report Dated August 3, 2017)

Size range	# of Brownfield Areas within Category	% of All Brownfield Area Designations per Category
<250 acres	313	73.3%
250 - 500.0 acres	21	4.92%
500.1 - 1,000.0 acres	33	7.73%
1,000.1 - 5,000.0 acres	46	10.77%
5,000.1 - 10,000.0 acres	8	1.87%
>10,000.0 acres	6	1.41%
Total	427	100.00%

- Whether the area has potential to interest the private sector in participating in rehabilitation; and

- Whether the area contains sites or parts of sites suitable for limited recreational open space, cultural or historical preservation purposes.

COMMUNITY MEETING FOR NW 58TH STREET GREEN REUSE AREA CORRIDOR DESIGNATION PURSUANT TO SECTION 376.80(2)(A), FLORIDA STATUTES (2017)



Part IV: Conclusions and Q&A

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"SOME HORSES NEED TO BE LED TO WATER, OTHERS HAVE A BUILT IN GPS FOR IT . . . ."

- Yesterday's brownfields environment is not today's brownfield environment
- Yesterday's brownfield developers was accidental, incidental, or opportunistic
- Today's brownfields developer is much more likely to be strategic or programmatic.
- Shift has created more opportunities for more categories of stakeholders, more leveraging of public and private capital, and improved bargaining power of historically weaker positioned parties
- Original brownfield fundamentals still apply – minimize exposure to risk of liability & maximize economic subsidy for incremental costs associated with construction and cleanup activities

"Mr. Semple, who wants to stimulate the economy, help the cities, and clean up the environment, I'd like you to meet Mr. Hobart, who wants to let the economy, the cities, and the environment take care of themselves. I'm sure you two will have a lot to talk about."

NAVIGATING THE DIVIDE

FROM CONTAMINATION RISK TO ENVIRONMENTAL AND ECONOMIC OPPORTUNITY

- Strong Legal Team
- Strong Technical Team
- **Active, Informed, Coordinated, and Communicative Design & Engineering Team**
- Emphasis on Land Planning, End Use Design, & End User Suitability and Risk Tolerance
- Sound, Methodical Legal, Technical, and Financial Underwriting
- Proper Transactional Structure & Use of Releases and Indemnities
- Leveraging of Federal & State Liability Protections
  - Covenants Not to Sue, Comfort Letters, Guidance Documents, Statutory Defenses & Safe Harbors
- Risk Based Corrective Action to Reduce Time/Cost of Cleanup
- Integration of Cleanup & Redevelopment
- Strong, Collaborative Partnership with Regulatory Agencies
- Community Buy-in
- Environmental Insurance

PERFECT BROWNFIELDS MARRIAGE
ENVIRONMENTAL RESTORATION & ECONOMIC DEVELOPMENT

"And may your union last for as long as it remains in the best interests of the planet."

QUESTIONS/ANSWERS