



TAB

TECHNICAL ASSISTANCE TO BROWNFIELDS

TX Commission Env Quality
TX Railroad Commission
USEPA R6 Dallas



US Environmental Protection Agency

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EPA's Technical Assistance to Brownfields (TAB) Communities Program

Green Infrastructure and Brownfields

Technical Assistance to Brownfields (TAB) Program
Center Creative Land Recycling
Kansas State University
New Jersey Institute of Technology

KANSAS STATE
UNIVERSITY.

NJIT
New Jersey Institute
of Technology



CENTER FOR CREATIVE
LAND RECYCLING

RECLAIM. CONNECT. TRANSFORM.

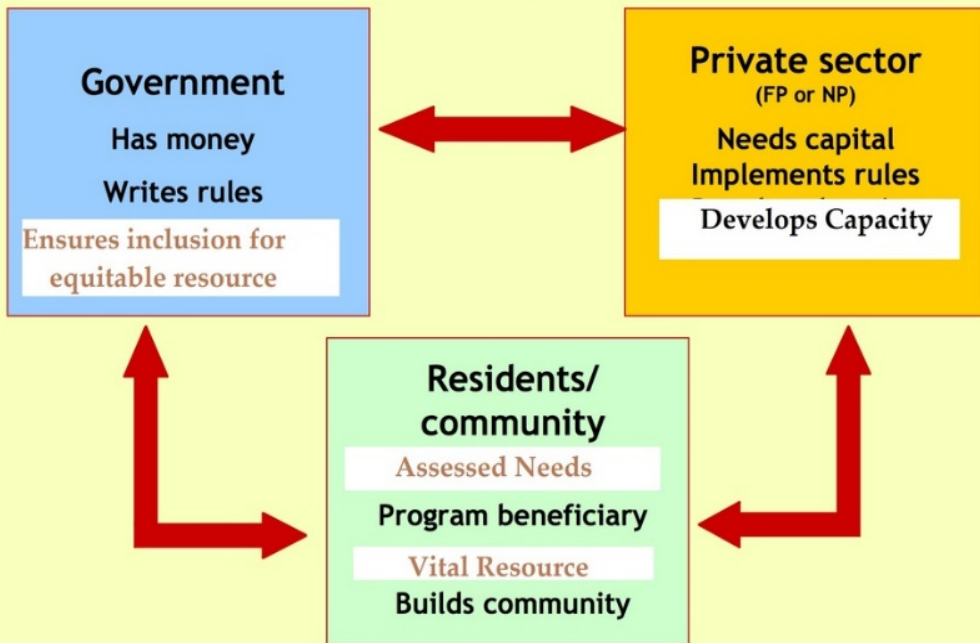
Brownfields are like doing a Puzzle ...

Or Baking a Cake



Ingredients: People

Affordable Resources : The three-way relationship for Residents



Public involvement plan:

- Projects often improved
- Real benefits of public buy-in
- Engage disenfranchised people

Ingredients: Process

Plan

Study

Remediate

Redevelop



**Storm Water and Sea Rise
Renewable and Clean Energy
Development
Urban Agriculture
Green Infrastructure
Flood Mitigation
LEED and Green building
Transit-oriented and walkable
neighborhoods
Park and Recreation
Green Remediation techniques
Adaptive Reuse**

Climate Smart Brownfields

Greenfield

- Financing Simpler
- On fringe
- Need new infrastructure
- Environmental impact

Brownfield/Infill Redevelopment

- More complex
 - Financial and environmental risks to manage
- Obsolete Structures
 - But these can have value/Adaptive Reuse
- Leverages Infrastructure
 - Water, sewer, transportation
- Protects open space
 - Mitigate against climate change

Depressed Neighborhood even more challenging

- May have to work on in stages
 - Initial aim – remove slum and blight with interim land use
- May have to fill gaps – (e.g. pay for characterization and/or cleanup)
- May have to provide private sector with “greenfield”
 - Assemble parcels
 - Characterize/Cleanup
- May have to provide incentives to get private sector to show interest (even cleaned up land may not show enough value)
- May have to have public project (e.g. park, fire station) as part, or as initial stage

Revitalization Financing Challenges

Impact of Contamination on Financing Redevelopment

Conceptualizing and Planning the Project
Economic Analysis for Marketing the Project

Dealing with Stigma

\$ for Site Assessment

Additional Underwriting/Site Development/R.O.R. Costs

**\$ for Preparing a Cleanup Plan and Taking It Through
VCP/State/Local Regulatory Agencies**

\$ for Cleanup

**“Regular” Real Estate Construction/Development Costs
When Site is “Shovel Ready”**

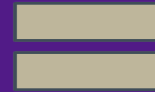
Funding Brownfield Redevelopment

Market Rate Nghbrhd

- Gov't asst?
 - Get ball rolling
 - Sweeten deal?
 - Density
 - Permitted Uses
- Opportunity to promote planning objectives
 - Green Infrastructure
 - Affordable Housing

Blighted Nghbrhd

- What will it take to get private sector interested?
 - Gov't fills gap so project has acceptable economic return
 - Some projects (e.g. parks) no private \$\$



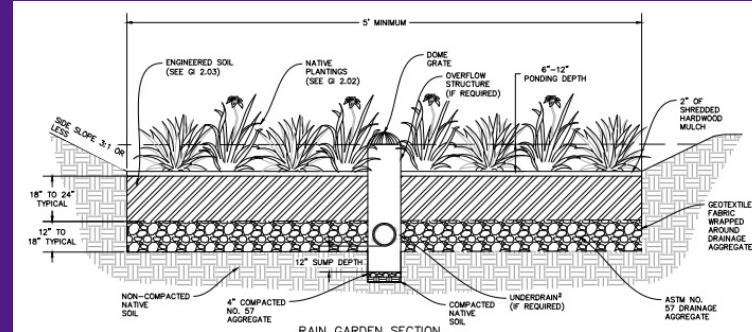
Gov't Participation

- Recognizes it has to participate to fill red zone gaps
 - But in return wants to influence development goals
 - Sustainability
 - Green Infrastructure
 - Energy Efficiency
 - Transit options
 - Affordable **Housing**
 - Other local planning
- Otherwise site will sit vacant with slum/blight depressing neighborhood



Green Infrastructure Win-Win

- Promotes Sustainability
- Enhances Aesthetics - Adds Value to Project
- Usually less expensive
- Usually improves score in grant competition



Today's Presentation

- **GI Intro** – Margaret Renas, Delta
 - What is Green Infrastructure (GI) / Types of GI
 - Identify Opportunities for Green Infrastructure
 - Relate GI to Brownfield Redevelopment
- **NJIT Tool and Exercise** - Elizabeth Limbrick, NJIT
 - Introduce GI Decision Tree Tool
(whether brownfield site is good choice for green stormwater infrastructure)
 - Use in exercise
 - Get a feel for how to manage the risks of constructing green stormwater infrastructure on a brownfield site.
- **Delta Tool Exercise** – Match GI Designs to Site
 - Get you thinking how to determine which GI designs or treatments are most suitable for a specific site or purpose
- **Bonus** – Additional Session (3:30 – 4:30)
Financing - Finding and leveraging funding for brownfield redevelopment
With focus on how a locality/economic developer can best organize and position itself to be competitive and successful in leveraging brownfield resources

Downloads



GREEN INFRASTRUCTURE DESIGNS

*SCALABLE SOLUTIONS TO LOCAL
CHALLENGES*

JULY 2015

delta institute 

GUIDON 
SUSTAINABLE ARCHITECTURE • ENGINEERING DESIGN

GREEN STORMWATER INFRASTRUCTURE DECISION TREE FOR BROWNFIELD SITES: OVERVIEW AND INSTRUCTIONS

SEPTEMBER 2016

NEW JERSEY INSTITUTE OF TECHNOLOGY –
TECHNICAL ASSISTANCE TO BROWNFIELDS
COMMUNITIES PROGRAM
(NJIT TAB)

NJIT
New Jersey's Science &
Technology University

<http://delta-institute.org/delta/wp-content/uploads/Green-Infrastructure-Designs-July-2015.pdf>

<http://www5.njit.edu/tab/tools-1/>

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