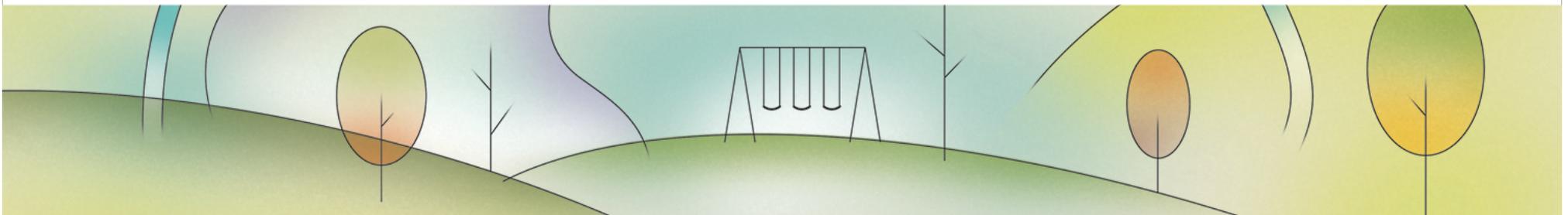




Green Infrastructure and the Economic Benefits of Parks

JANUARY 25, 2014



TPL's Conservation Finance Program

1.

“Think tank” on financing conservation

- Leading source of research, education and policy information

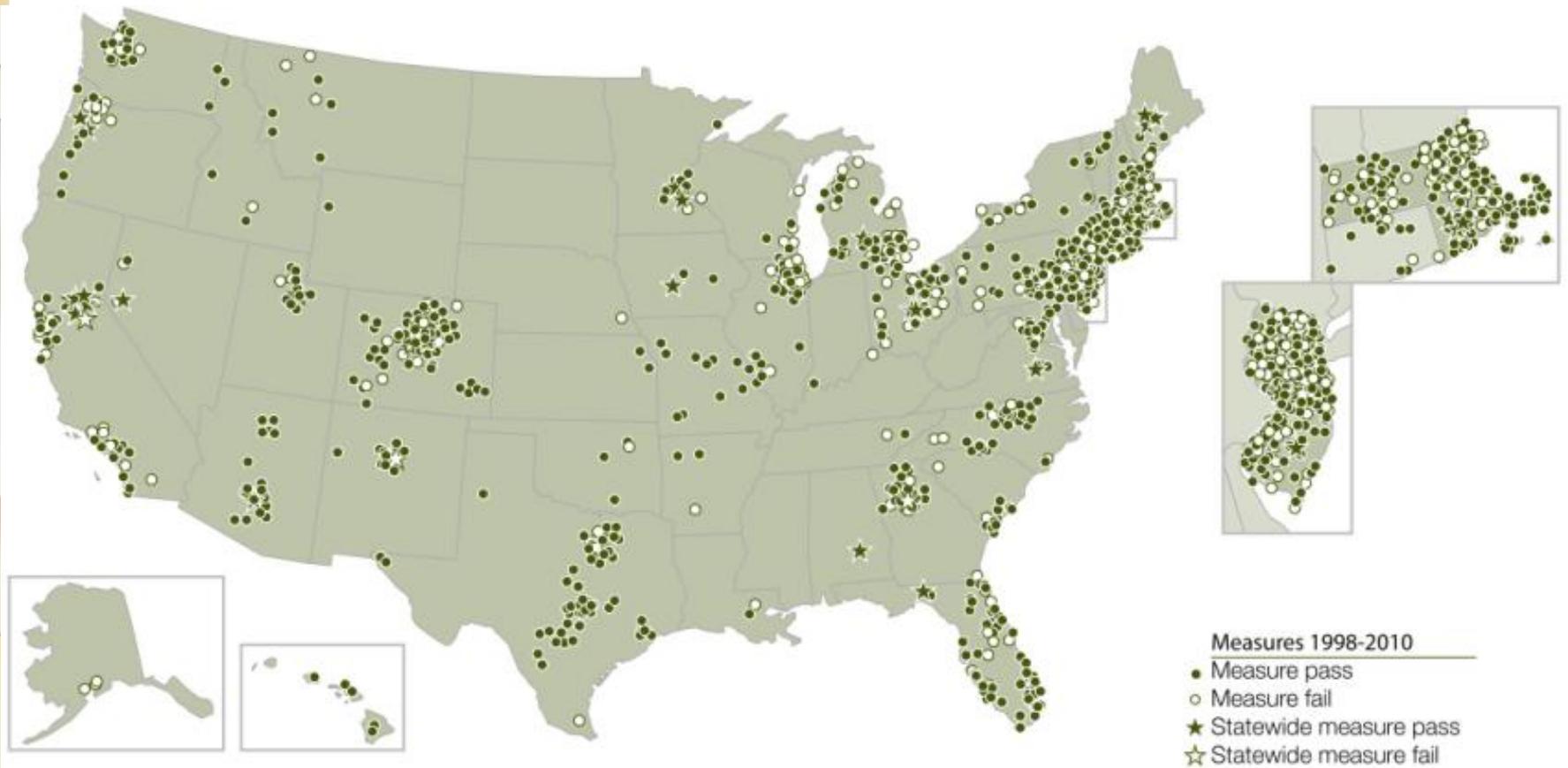
2.

Field services

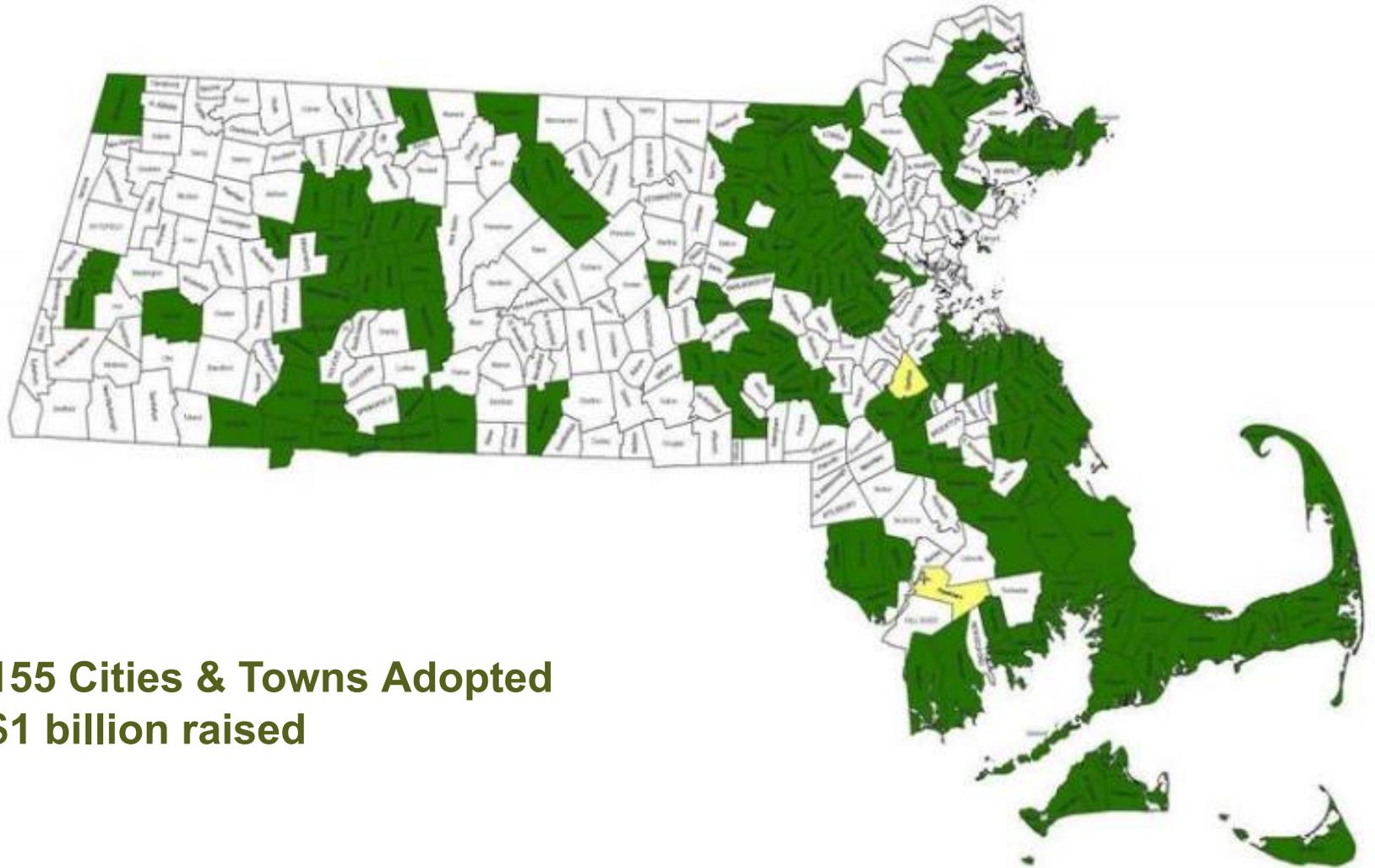
- #1 provider of technical assistance to state and local governments \$34B created, 450+ ballot measures, 84% success rate



Conservation Finance Ballot Measures 1998-2010



Mass. Community Preservation Act



**155 Cities & Towns Adopted
\$1 billion raised**

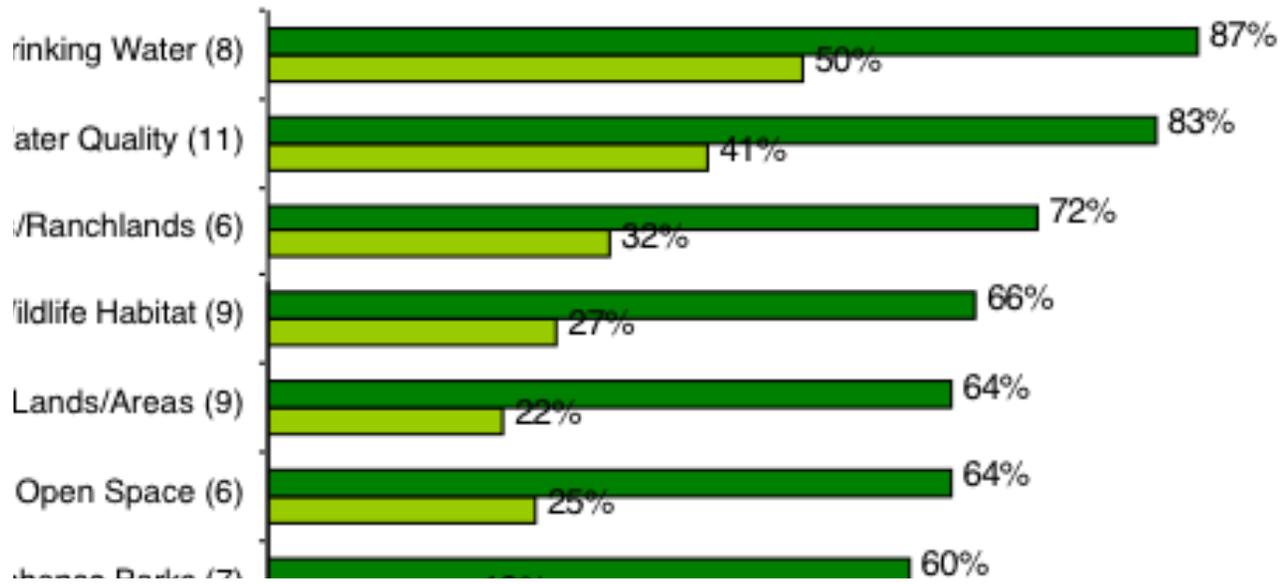


Why Do Voters Choose to Raise Their Taxes to Support Land Conservation and Parks?



Voter Support for Investments in Land Conservation

2011 Poll Purpose Summary



Economic Benefits of Parks and Open Space in Massachusetts

Every \$1 invested by Massachusetts in parks and open space returns \$4 in natural goods and services

- **Water quality protection**
- **Air pollution removal**
- **Flood control**

The Return on Investment in Parks and Open Space in Massachusetts



THE TRUST FOR PUBLIC LAND
CONSERVING LAND FOR PEOPLE

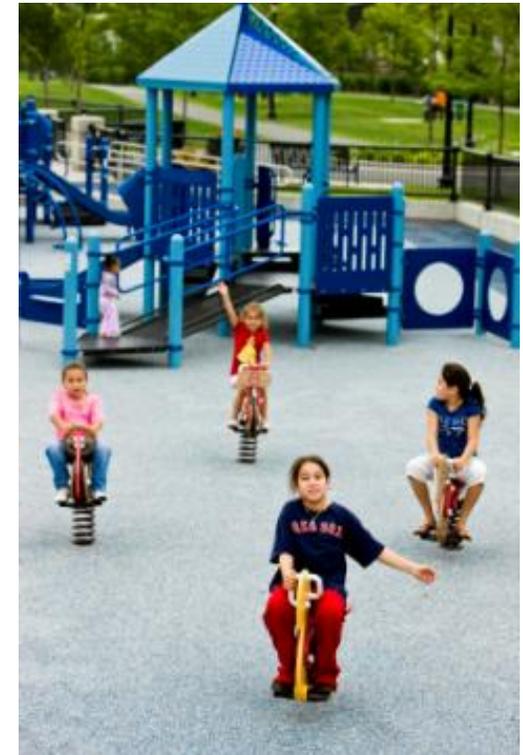
Economic Benefits of Parks and Open Space in Massachusetts

The state's \$35.9 million investment in gateway city park improvements will generate

492 jobs

\$26.5 million in labor income

Every \$1 million invested creates 13.7 jobs





Key Points on Green Infrastructure/Parks

- **Green Infrastructure is not a panacea, but it can be a cost-effective strategy alongside Grey Infrastructure**

- **It must be Green WITH Grey**

- **Green Infrastructure can provide amenities**

- **NYC playgrounds; Houston Bayous**

- **Parks can be adapted to serve as GI**

- **Harvard Colloquia**

Case Study – Lancaster, PA

EPA requirement: reduce the 750 million gallons of CSO runoff flowing into Chesapeake Bay annually

Gray Alternative: \$300m capital cost to expand WWTP and build CSO tanks plus \$750k operating costs

Green Alternative: \$140m capital cost

Proposed Stormwater Fee: \$31/1000 sf impervious cover = \$4.8m annually

The screenshot shows a website with a blue flower logo and the text "SAVE IT! YOUR WATER. YOUR MONEY. YOUR CITY." Below the logo is a navigation menu with four items: "What's the Problem?", "What Can I Do?", "Benefits", and "Local Projects". The "Local Projects" item is selected, and a sub-menu shows "Stories" and "The Cost of Dealing with Stormwater". Below the menu is a video player with a green header "WATER HEROES" and an aerial view of a residential area with a red line indicating a riparian buffer. The video title is "New Riparian Buffer planted along the Conestoga Greenway and River in Southeast Lancaster City."



How Green Infrastructure is Financed

- Legal Enforcement Actions
- Payment for Watershed Services
- Clean Water State Revolving Fund (CWSRF)
- State Legislation/Ballot Measures
- Local Ballot Measures
- Private support
(foundations/landowners/donors)

Northeast OH Regional Sewer District – Enforcement Order



Northeast Ohio Regional Sewer District

PROJECT CLEAN LAKE
GREAT LAKE • GREAT FUTURE

COMMUNITY MEETING
GREEN INFRASTRUCTURE PROJECTS

Fleet Avenue Green Infrastructure Project

Wednesday, September 11, 2013
6:00 p.m.

Polish-American Cultural Center
6501 Lansing Ave. in Cleveland

Join us to discuss the benefits of this green infrastructure project. We will also vote on several of its aesthetic aspects, including fencing, seating, and lighting.

neorsd.org/cleanlake
twitter.com/neorsd
facebook.com/yoursewerdistrict
Keeping our Great Lake great.

\$3b Consent Decree with EPA

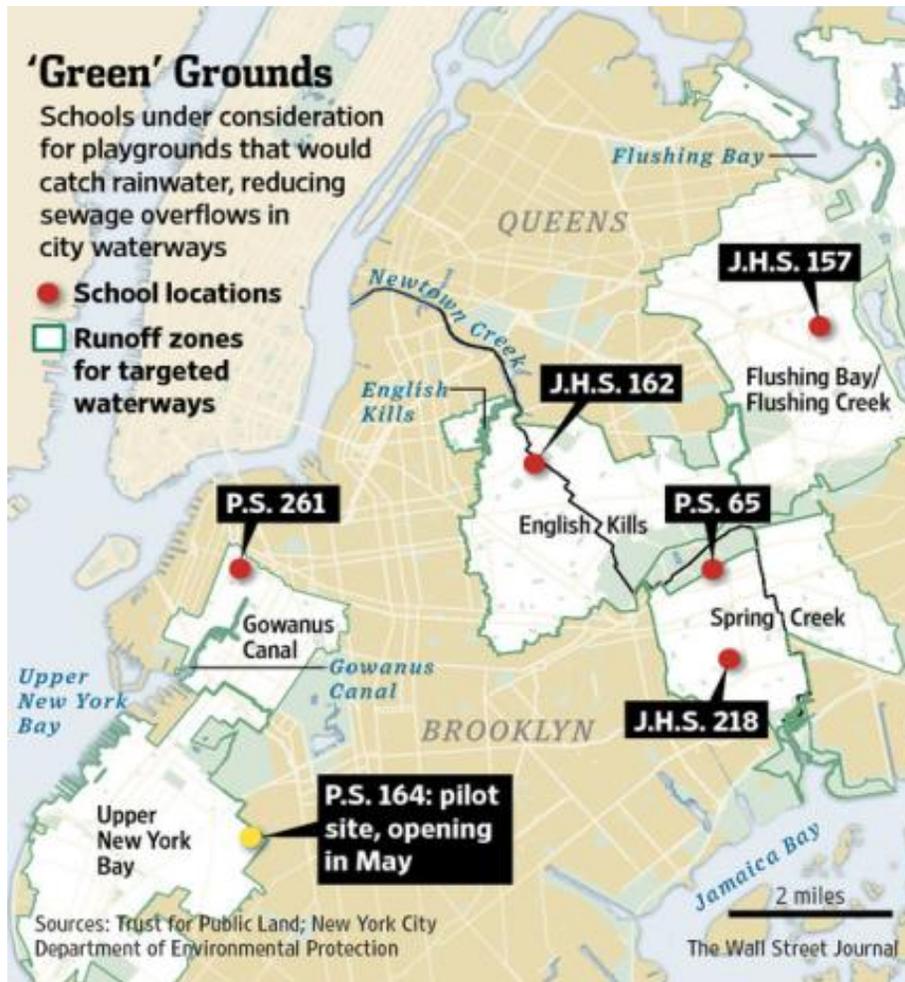
--\$42m required for GI

Cleveland Foundation -- \$400k grant to ID green opportunities

S
p



New York City Playgrounds – Enforcement Order



DEC and DEP
Announce
Groundbreaking
Agreement To
Reduce Combined
Sewer Overflows
Using Green
Infrastructure in New
York City

\$2.4 Billion in Green
Infrastructure and
\$1.4 Billion in Gray
Infrastructure to
Target the City's
Most Impaired
Waterbodies:

New York City Playgrounds – Enforcement Order



Raleigh, North Carolina – Payment for Watershed Services

TPL hired to develop Upper Neuse Clean Water Initiative Plan

Multiple organizations implement conservation strategy

Local Government \$ is Key

Wake County: 3 Bonds total \$91 million; Local match program

Raleigh Watershed Protection Fee

1 cent per 100 gallons = \$1.8m/year

Results: 53 mi. stream buffers protected; 5,262 acres of land

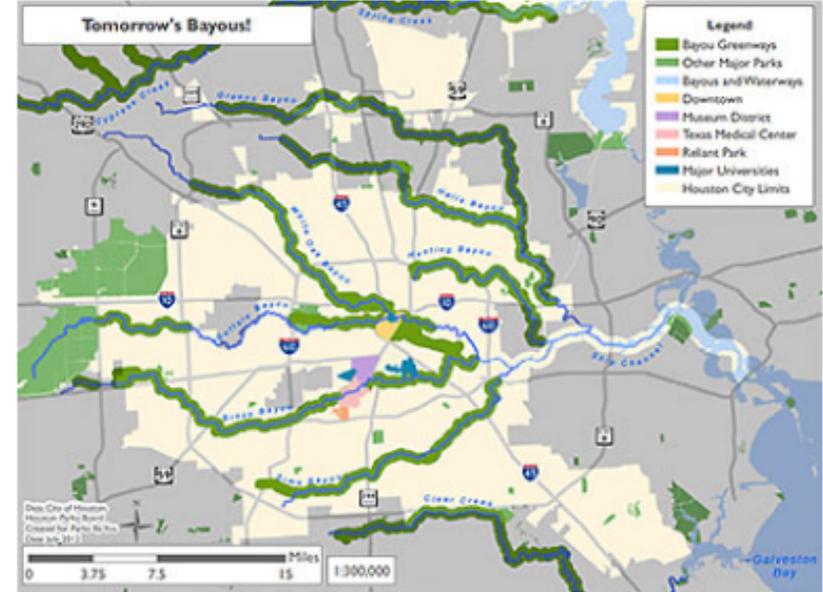
THE UPPER NEUSE CLEAN WATER INITIATIVE CONSERVATION PLAN

PROTECTING LAND AND DRINKING WATER FOR THE FUTURE



CITY OF RALEIGH
CONSERVATION TRUST FOR NORTH CAROLINA
ELLERBE CREEK WATERSHED ASSOCIATION
ENO RIVER ASSOCIATION
NEUSE RIVER FOUNDATION
TAR RIVER LAND CONSERVANCY
TRIANGLE GREENWAYS COUNCIL
TRIANGLE J COUNCIL OF GOVERNMENTS
TRIANGLE LAND CONSERVANCY
THE TRUST FOR PUBLIC LAND
UPPER NEUSE RIVER BASIN ASSOCIATION

Houston – Ballot Measure



- Bayou Greenways Initiative – 4,000 acre goal; 300 miles of trails, \$480m
Step 1: Bayou Greenways 2020 -- \$215m Effort
 - Public Funding: \$100m; Private Funding \$115m
- November 2012: \$166m Parks Bond Measure -- \$100m for Bayou Greenways (68% Support (highest in city's history))

Atlanta – Local Taxation

- Historic Fourth Ward Park -- 5-acre park designed to deal with CSO problems
- 2 acre engineered pond vs. storage tunnel saved city \$15 million





MA Water Infrastructure Legislation – Proposed Incentives for Green with Grey under WPAT

- Increase WPAT points for Green Infrastructure Water Projects

- Bonus points for joint Green-Grey applications

- Green projects must help with Clean Water Act compliance, part of stormwater mgt. plan

- Green projects: riparian corridor restoration, swales, rain gardens, green roofs change from asphalt to porous surfaces

- Could be linked to accompanying amenities such as parks, playgrounds and trails funded by other sources like CPA

- Stormwater utilities may be key to financing WPAT loan repayment