Urban Pond and Marsh Restoration

A Cost-Saving Paradigm
Three Urban Pond/Marsh Restoration Projects

• Pope John Paul II Park Salt Marsh Restoration, Boston, MA-1996

• Forest Hills Park Kettlepond Restoration, Queens, NY-1998

• Anacostia Waterfront Park Stream Daylighting and Estuary Restoration, Washington, DC-2000
Common Themes

- Fill = waste
- Mosquito threat
- Desire to access waterfront
- Public chooses to enjoy nature
- Recognition of restoration technical possibility
Small Scale IS NOT Large Scale

- This is not the Everglades Restoration Program
- More costly “per acre”
- Much cheaper “per mind”
- Often only ecosystem exposure for urban dwellers
Small Scale IS NOT Large Scale

- Tainted, compromised, NOT pristine by any measure
- Shift paradigm to incorporate ecological function into sustainable land use actions
Scales of Water Cycle Function

- **Planetary scale** – global sustainability
- **Regional scale** – quality of life
- **Watershed scale** – stream health
- **Site scale** – parcels of ownership
- **Meter scale** – soil volume, land area
- **Micro scale** – biogeochemistry
Sustainable Development:

“...development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

--World Commission on Environmental Development (Bruntland, 1987)
Pope John Paul II Park, Boston, MA

- Restore fringing saltmarsh
- Remove municipal solid waste
- Link regional waterfront greenway
- Eroding tidal banks + boating
- CCC era mosquito ditches
- Passive recreation goals
A free park on waterfront property accessible by transit
Forest Hills Park, Queens, NY

• Restore filled Kettlepond
• Replace Twin Ballfields, 1960’s
• Original pond filled c. 1905
• Eroding slopes
• Drainage system modifications
• Passive recreation goals
Ecological mosquito control in and out of the park
Anacostia Waterfront Park, Washington, DC

- Daylight two streams
- Restore estuarine wetlands
- Remove fill, c. 1906
- Stabilize streams, manage stormwater
- Link neighborhoods
- Passive recreation goals
Opportunity to save millions on CSO separation infrastructure
Priorities:

Keep impacts on site
Mitigate offsite problems
Raise public consciousness
Inspire and appeal
Use every project budget to transact restoration