NYC’s First Bank and Available Wetland Mitigation Credits:
Saw Mill Creek Pilot Wetland Mitigation Bank
New York City Economic Development Corporation (NYCEDC)

Why us?

- NYCEDC is a quasi-governmental agency

- History:
  - 1966: New York City Public Development Corporation (PDC)
    - Sale and lease of City-owned property
    - Managed City’s industrial parks and provided the City with urban planning services
  - 1979: Financial Services Corporation (FSC) Of New York City
    - Promote citywide business expansion by administering finance programs, such as direct loan programs
    - Assumed responsibility for the New York City Industrial Development Agency (NYCIDA), responsible was assisting industrial, commercial and not-for-profit firms in obtaining low-cost financing through the issuance of tax exempt bonds
  - 1991: New York City Economic Development Corporation (NYCEDC)
    - Formed by merging PDC and the FSC, and assumed the services previously undertaken by the merged corporations
    - Assumed economic development services previously performed by the City’s Department of Ports and Trade
NYC’s compensatory mitigation regulatory process creates acute economic and ecological inefficiencies:

- DEC and USACE permit offsets can cost up to $4 million per-acre of mitigation
- On-site mitigation can require sacrificing useful assets (existing piers, bulkheads, etc.)
- Offset ratios are unpredictable ranging from 1:1 to 1:3
- Identifying mitigation opportunities is increasingly difficult in NYC
NYC’S CURRENT MITIGATION APPROACH

Examples

**NYCEDC**

**EAST 34TH STREET FERRY LANDING**

Aquatic Impact: .07 acres
Mitigation Required: .23 acres
Mitigating Activity: Removal of Pier 7
Cost of mitigation: $300,000
NYC'S CURRENT MITIGATION APPROACH

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**SOUTH BROOKLYN MARINE TERMINAL**

Aquatic Impact: <.15 acres
Mitigation Required: .15 acres
Mitigating Activity:
- Bulkhead demolished
- Riprap created
Cost of mitigation: $1,520,770
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**MITIGATION BANKING**

Pilot Solution

“Economies of Scale” and “Ecologies of Scale”

- Federal rule on mitigation banking prefers mitigation banks over permittee-responsible mitigation
- Third-party restoration in advance generates “credits” which are acquired for project permits requiring offsets for impacts to tidal wetland
- Mitigation banks can be developed by public agencies, private sector, or through P3s
- Advantage of credits is they allow for faster and cheaper permitting
- Verifiable, market-based mechanism for wetland and coastal resource replacement
1. Assess feasibility of mitigation banking in NYC; inform time, cost, and ecological impact of a pilot bank in the Nation’s most urbanized counties

2. Inform normative baselines and provide technical standards for how banking compensatory mitigation in NYC can operate

3. Establish a mitigation credit market in NYC to compel private entrepreneurs to invest in restorations in the City
SAW MILL CREEK PILOT MITIGATION BANK

Process

1. Prospectus:
   - Overview of Project and Service Area
   - Public Comment

2. Mitigation Banking Instrument
   - Restoration Plan
   - Ecological Performance Measures
   - Monitoring and Maintenance Protocols
   - Long-term Stewardship Mechanism
   - Credit System and Schedule for Release

3. Permits
   - Environmental Review
   - Public Comment
SAW MILL CREEK PILOT MITIGATION BANK

Project Permitting History

December 2012 - RFP released for design and permitting team in December 2012

March 2013 - After competitive procurement Louis Berger starts work on project with NYCEDC

May 2013 - First meeting of Interagency Review Team (IRT)

August 2013 - Sediment sampling occurs

November 2013 - Draft-Prospectus noticed

February 2014 - Prospectus finalized

June 2014 - Supplementary sediment sampling occurs

January 2015 - Public notice of NYS DEC and USACE permits

April 2015 - agencies noticed of start of NEPA-Environmental Assessment (EA)

July 2015 – City Environmental Quality Review - Negative Declaration issued

September 2015 – NYS DEC issues permits

December 2015 - USACE signs MBI

November 2016 - IRT reconvenes to discuss USACE permit

February 2017 - notice of NEPA EA-Finding of No Significant Impact (FONSI)

March 2017 – USACE issues permit with sampling permit conditions
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Process

- Phase 1: 53.94-acre site on west shore of Staten Island, part of 100+ acre marsh complex
- Phase 2: 14 acres
- City-owned under DPR jurisdiction
- Site historic tidal wetland and portions severely degraded
  - Historic fill, dumping, and debris
  - Mosquito ditching
  - Invasive species
SAW MILL CREEK PILOT MITIGATION BANK
Phase 1: Capital Project Summary

Restore Wetland (Rehabilitation and Re-Establishment)
  – Remove historic fill-material
  – Re-plant native wetland flora

Enhance Tidal and Forest Habitat
  – Remove invasive species, garbage, and debris

Creates Mitigation Credits
  – 12.92 credit acres of impact
    • Project expands to phase II West Side with availability of future funds

Step 1
  Establish Fauna Baseline Tissue Test

Step 2
  Excavate 39,449 CY of Material

Step 3
  Test for clean sediment at final grade

Step 4
  Plant 26.06 acres of new vegetation
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Process

- Five year period in which Saw Mill Creek is continuously monitored to demonstrate that performance standards have been met
- Sediment and Biota Sampling
- After this five year period ends and all credits are sold bank closes
SAW MILL CREEK PILOT MITIGATION BANK

Process

- Development, Design, & Regulatory Approvals
- Restoration
- Establishment
- Long-Term Stewardship

- NYC Parks will be the long term steward of the site; maintaining site function and keeping invasive species at bay.

- The site will be periodically inspected to ensure that it continues to function, tracking the wildlife, vegetation, and stream flow.

- Agreement with Parks for long-term steward with initial capital is required.
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Project Schedule

1. Design, Development & Approvals
   - Approved Mitigation Bank Instrument
     - Fall 2017
       - 1.29 credits

2. Restoration
   - Earthworks & Hydrology Established
     - Mid 2018
       - 2.584 credits
   - Planting Completed
     - Late 2018
       - 1.29 credit

3. Establishment
   - Year 1
     - Early 2020
       - 2.584 credits
   - Year 3
     - Early 2022
       - 2.584 credits
   - Year 5 & Bank Closure
     - Early 2024
       - 2.584 credits

4. Stewardship
   - EDC Operates Bank
   - DPR Control
• 1 Credit equals 1 acre (43,560 SQFT) of impact
• Every in water construction project is different
• Mantra: Avoid, Minimize, Mitigate

Hypothetical Example:
• 20 FT of bulkhead extending 20 FT into water could be calculated as 400 SQ FT of impact
• \[ \frac{400 \text{ SQFT}}{43,560 \text{ SQFT}} = 0.0092 \text{ credits} \]
<table>
<thead>
<tr>
<th>PROJECT REQUIRING MITIGATION</th>
<th>AGENCY</th>
<th>IMPACT (ACRES)</th>
<th>MITIGATION (ACRES)</th>
<th>MITIGATION ACTIVITY</th>
<th>COST OF MITIGATION ACTIVITY</th>
<th>COST OF EQUIVALENT MITIGATION CREDITS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>East 34th Street Ferry Landing</td>
<td>NYCEDC</td>
<td>0.07</td>
<td>0.23</td>
<td>Removal of Pier 7</td>
<td>$300,000</td>
<td>$105,000</td>
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<tr>
<td>South Brooklyn Marine Terminal</td>
<td>NYCEDC</td>
<td>0.15</td>
<td>0.15</td>
<td>Bulkhead demolished, rip-rap created</td>
<td>$1,520,770</td>
<td>$225,000</td>
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<tr>
<td>Calvert Vaux Phase I and Dreier Offerman Habitat Restoration Project</td>
<td>Parks</td>
<td>1.4</td>
<td>1.4</td>
<td>Soil remediation, wetland planting, permeable pavement</td>
<td>$2,539,760</td>
<td>$2,100,000</td>
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<tr>
<td>Southwest Brooklyn Converted MTS</td>
<td>DSNY</td>
<td>0.91</td>
<td>0.91</td>
<td>Sunset Cove wetland and habitat creation</td>
<td>$910,000</td>
<td>$1,365,000</td>
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<td>North Shore Converted MTS</td>
<td>DSNY</td>
<td>3.85</td>
<td>3.85</td>
<td>Pugsley Creek marsh creation, Hamilton Ave MTS demolition, Bush Terminal Piers shallow water habitat and debris removal, Fresh Kills Barge removal</td>
<td>$16,295,036</td>
<td>$5,775,000</td>
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<tr>
<td>East 91st Street Converted MTS</td>
<td>DSNY</td>
<td>2.15</td>
<td>2.15</td>
<td>South Bronx MTS demolition, Bush Terminal Pier 4 demolition, Fresh Kills Mooring Rack Walkway removal, Sunset Cover restoration</td>
<td>$4,753,773</td>
<td>$3,225,000</td>
</tr>
</tbody>
</table>

*Assumes $1.5M cost to create credit
SAW MILL CREEK BANK
Open For Business

- A **Request for Proposal (RFP)** is now available for interested parties to acquire Credits from the Saw Mill Creek Pilot Wetland Mitigation Bank.
  
  - Credits are eligible only for tidal wetland impacts
  - Credits are available for usage in NYC only
  - Any Credit fraction may be acquired

- Respondents should **confirm directly with federal and state regulators** that Credits and Credit quantities from the Saw Mill Creek Pilot Wetland Mitigation Bank address Respondents’ specific project permit mitigation requirements.

The RFEI is available for download at [WWW.EDC.NYC/RFP](http://WWW.EDC.NYC/RFP)
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