**GREEN INFRASTRUCTURE PLAN**

**EAST RIVER AND OPEN WATERS**

**Total Watershed Drainage Area:** 90,966 acres

**Combined Sewer Contributory Area:** 50,774 acres

**Combined Sewer Contributory Impervious Area:** 41,127 acres

**Opportunity Area for Source Controls:** 30,607 acres

The goal is to manage stormwater from 10% of the impervious surfaces in the combined sewer contributory area. There are opportunities in 53% of the combined sewer contributory area.

### Opportunities in Combined Sewer Contributory Area

<table>
<thead>
<tr>
<th>Acres</th>
<th>% of Watershed</th>
</tr>
</thead>
<tbody>
<tr>
<td>New development/redevelopment</td>
<td>3,124</td>
</tr>
<tr>
<td>Vacant lots</td>
<td>1,259</td>
</tr>
<tr>
<td>Right-of-way</td>
<td>14,590</td>
</tr>
<tr>
<td>Planned ROW Projects</td>
<td>506</td>
</tr>
<tr>
<td>Commercial corridors</td>
<td>683</td>
</tr>
<tr>
<td>Other streets</td>
<td>9,292</td>
</tr>
<tr>
<td>Other sidewalks</td>
<td>4,201</td>
</tr>
<tr>
<td>Multi-family residential complexes</td>
<td>1,833</td>
</tr>
<tr>
<td>Commercial development with parking lots</td>
<td>183</td>
</tr>
<tr>
<td>Schools</td>
<td>1,030</td>
</tr>
<tr>
<td>Parks</td>
<td>8,589</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>30,607</strong></td>
</tr>
</tbody>
</table>

### Wastewater Treatment Plant(s):

- Red Hook, Newtown Creek, Bowery Bay, Wards Island, Hunts Point, Tallman Island, North River, Port Richmond, Owls Head

### NYSDEC Classification(s):

- Class I – Secondary Contact, Boating and Fishing (East River, Harlem River, Hudson River and Upper bay)
- Class SA – Primary and Secondary Contact, Shellfishing (Lower Bay and Raritan Bay)
- Class SB – Primary and Secondary Contact, Fishing and Bathing (East River, Hudson River, Lower Bay and Raritan Bay)
- Class SD – Fish Survival (Arthur Kill and Kill Van Kull)

### Ecological Classification(s):

- Special Natural Waterfront Area (DCP, East River) Significant Coastal Fish and Wildlife Habitats (NYSDOS, Arthur Kill, East River, Hudson River, Kill Van Kull and Lower Bay)

### Existing Water Uses:

- Commercial and Municipal Shipping and Barging, Recreational Boating, Fishing and Swimming, Shellfishing

### Shoreline Uses:

- Residential, Commercial, Municipal, Industrial, Recreational, Institutional, Military, Swimming, Private Beach Clubs, Parks and Open Space

### Borough(s):

- Manhattan (1-12)
- Bronx (1-5, 7, 8, 10)
- Brooklyn (1-3, 7, 12)
- Queens (1, 2, 7)
- Staten Island (1)

### Community District(s):

- Manhattan (1-12)
- Bronx (1-5, 7, 8, 10)
- Brooklyn (1-3, 7, 12)
- Queens (1, 2, 7)
- Staten Island (1)

### Median HH Income

- $48,562

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**PERFORMANCE AND COSTS**

<table>
<thead>
<tr>
<th>CSO Volume Reduction (MG/yr)</th>
<th>Capital Cost ($M)</th>
<th>Capital Cost per Gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,865</td>
<td>$345</td>
<td>$0.12</td>
</tr>
<tr>
<td>PLUS Reduced Flow</td>
<td>1,282</td>
<td>-</td>
</tr>
<tr>
<td>PLUS Green Infrastructure (10% Capture)</td>
<td>548</td>
<td>$463</td>
</tr>
<tr>
<td>PLUS Tide Gate Repair and Interceptor Cleaning</td>
<td>45</td>
<td>$1</td>
</tr>
</tbody>
</table>

**Green Strategy Total:** 4,760

**Capital Cost per Gallon:** $0.12

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**Cost-Effective Grey Infrastructure Investments**

- Bowery Bay WWTP Headworks Improvements
- Regulator Automation
- Port Richmond Throttling Facility
- In-Line Storage
- East River Plan Regulator Improvements
- Wards Island WWTP Flow Maximization
- Gravity Diversion at Hannah Street Pump Station
- Divert Low-Lying Sewers
- Raise Weir at Regulator
- Tallman Island WWTP Flow Maximization

**Grey Strategy Total:** 2,865

**Capital Cost per Gallon:** $0.12