On July 27th, 2016 staff from NYC DEP joined the Guardians of Flushing Bay and the Empire Dragon Boat Team at the World’s Fair Marina for a tour of Flushing Bay.
Flushing Bay
Combined Sewer Overflow
Long Term Control Plan

Public Meeting #2
Review of Alternatives

USTA Tennis Center
October 26, 2016
Welcome & Introductions

Mikelle Adgate
Director of Stormwater Management Outreach
DEP – BPA
NYC Long Term Control Plans (LTCPs)

What is an LTCP?

- The goal of each LTCP is to identify appropriate CSO controls necessary to achieve waterbody specific water quality standards, consistent with the Federal CSO Policy and water quality goals of the CWA.

The LTCP process:

- Builds off existing infrastructure investments (i.e. Waterbody/Watershed Plans)
- Assesses current waterbody and watershed characteristics
- Identifies and analyzes Grey-Green* infrastructure balance for different watersheds to meet applicable water quality standards
- The LTCP is subject to DEC review and approval
- Includes a public engagement process

*Definitions:

Grey = traditional practices such as tanks, pipes, and sewers
Green = sustainable pollution reducing practices that also provide other ecosystem benefits
Flushing Bay LTCP Process & Public Involvement

Queens Community Board 3 Meeting on Public Outreach 9/17/2015

Existing Information Review → Data Collection & Analysis → Modeling → Alternatives Development & Evaluation → LTCP → DEC Review

Kickoff Meeting 9/30/15 → Alternatives Review Meeting TODAY → Final Plan Review Meeting TBD

ONGOING PUBLIC/STAKEHOLDER INPUT
Public Comments Received

1. Assess Green Infrastructure in the vicinity of the Flushing Bay and Creek

2. Evaluate alternatives beyond disinfection with chlorine

3. Concerns about chlorine residual control

These comments will be addressed in subsequent sections of this presentation.
Drainage Area and Land Use

**LEGEND**
- Residential
- Mixed Residential and Commercial
- Commercial and Office
- Industrial and Manufacturing
- Transportation and Utility
- Public Facilities and Institutions
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Unknown

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Residential &amp; Commercial</td>
<td>62%</td>
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<tr>
<td>Transportation &amp; Utility</td>
<td>15%</td>
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<tr>
<td>Other</td>
<td>7%</td>
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<tr>
<td>Public Facility</td>
<td>6%</td>
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<tr>
<td>Park and Open Space</td>
<td>5%</td>
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<tr>
<td>Industrial</td>
<td>5%</td>
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</table>
Questions?
Receiving Water Sampling

Keith Mahoney, P.E.
Director of Water Quality Planning
DEP – BEDC
Flushing Bay Drainage Area

- **Annual Wet-Weather Discharge Volume ≈ 2.1 Billion Gallons**
  (LTCP baseline values based on Calibrated Model for entire drainage area)
  - 1,454 MG CSO (69%)
  - 103 MG MS4 Stormwater (5%)
  - 560 MG Other Stormwater and Direct Drainage (26%)

- **Sewer System:**
  - Tallman Island (TI) and Bowery Bay (BB) wastewater treatment plants
  - 9 CSO Outfalls (∆)
  - 4 MS4 Outfalls (○)

<table>
<thead>
<tr>
<th>Drainage Area Acres</th>
<th>Bowery Bay WWTP</th>
<th>Tallman Island WWTP</th>
<th>LaGuardia Airport</th>
</tr>
</thead>
<tbody>
<tr>
<td>Served by Combined Sewers</td>
<td>84%</td>
<td>55%</td>
<td>N/A</td>
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</table>
Water Quality Standards and LTCP Goals

**CLASS I**

**Boating/Fishing**

The best usage of Class I water is secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish and wildlife propagation and survival. In addition, the water quality shall be suitable for primary contact recreation, although other factors may limit the use for this purpose.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Criteria*</th>
<th>Reference</th>
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</thead>
<tbody>
<tr>
<td>Fecal Coliform</td>
<td>Monthly Geometric Mean ≤ 200 col/100 mL</td>
<td>• New rulemaking promulgated by DEC on November 14th, 2015</td>
</tr>
<tr>
<td></td>
<td>Monthly Median ≤ 2,400 col/100 mL</td>
<td>• New rulemaking promulgated by DEC on November 14th, 2015</td>
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<tr>
<td>Total Coliform</td>
<td>80% ≤ 5,000 col/100 mL</td>
<td></td>
</tr>
<tr>
<td>Dissolved Oxygen</td>
<td>≥ 4.0 mg/L (acute, never less than)</td>
<td>• DEC water quality parameter</td>
</tr>
</tbody>
</table>

* EPA has also proposed a potential future RWQC for enterococcus: 30-Day Rolling GM ≤ 30 col/100 mL.

**CSO LTCP Goals and Targets:**
- Annual and Seasonal Bacteria Compliance
- Annual Dissolved Oxygen Compliance
- Time to Recovery for Bacteria of ≤ 24 hours
- Floatables Control
 LTCP Sampling: Oct.’13-May’14

**Outfall Pipe**
- 2 CSO Outfalls (BB-006 & BB-008)

**Flushing Bay**
- 12 locations / ~939 total samples
  - **Inner Bay:** (OW7 thru OW9)
  - **Outer Bay:** (OW10 thru OW15)

Other Sampling Programs:

**Harbor Survey Monitoring**
- 3 locations / 42 samples
  - (E15, FB1, E6)

**Sentinel Monitoring**
- 2 locations / 9 samples
  - (S65, S66)

**Citizen Sampling**
- 1 location / 40 entero samples only
  - (World’s Fair Marina)
Fecal Coliform Sampling – Geometric Means

Flushing Bay Sampling Period:
**October 21, 2013 to May 7, 2014**
(~25 Dry and ~65 Wet samples per location)

### Dry Weather

### Wet Weather
Fecal Coliform Recovery Over Time

OW7 LTCP Receiving Water Sampling Data

Target: \( \leq 1000 \text{ cfu/100 mL} \)

LGA Daily Rainfall

Fecal Geomean

Event #1
- 12/5/2013: 0.01
- 12/6/2013: 0.73
- 12/7/2013: 0.13
- 12/8/2013: 0.05
- 3/29/2014: 1.79
- 3/30/2014: 0.37
- 4/1/2014: 0.12
- 4/7/2014: 0.66
- 4/8/2014: 0.34
- 4/9/2014: 0.87
- 4/10/2014: 0.05
- 4/15/2014: 0.87
- 4/16/2014: 0.05
- 4/18/2014: 0.87
- 4/30/2014: 0.03

Event #2
- 5/1/2014: 0.15
- 5/2/2014: 0.15
- 5/3/2014: 0.03

Event #3
- 5/1/2014: 8287
- 5/2/2014: 898
- 5/3/2014: 110

Event #4
- 5/1/2014: 8287
- 5/2/2014: 898
- 5/3/2014: 110

Event #5
- 5/1/2014: 5.26
- 5/2/2014: 898
- 5/3/2014: 110

Target: \( \leq 1000 \text{ cfu/100 mL} \)
Enterococci Sampling – Geometric Means

Flushing Bay Sampling Period: 
**October 21, 2013 to May 7, 2014**
(~25 Dry and ~65 Wet samples per location)

**Dry Weather**

**Wet Weather**
Enterococci Recovery Over Time

OW7 LTCP Receiving Water Sampling Data

LGA Daily Rainfall
Enterococci Geomean

Target
≤110 cfu/100 mL

Event #1
12/5/2013
0.01
1.79
0.13
0.05
0.73
0.37
0.12
12/6/2013
0.13
49
12/7/2013
0.05
3118
12/8/2013
0.05
3118
3/29/2014
1.79
3/30/2014
2298
3/31/2014
0.12
4/1/2014
0.01
4/1/2014
0.01
4/7/2014
0.66
4/8/2014
0.34
4/9/2014
0.34
4/10/2014
0.34
4/11/2014
0.34
4/15/2014
0.34
4/16/2014
0.87
4/17/2014
0.87
4/18/2014
5.26
4/30/2014
5.26
5/1/2014
27
5/2/2014
149
5/3/2014
149

Rainfall, in

Enterococci Geomean, cfu/100mL

La Guardia Daily Rainfall

Enterococci Geomean

Target: ≤110 cfu/100 mL
**Dissolved Oxygen Sampling - Averages**

Flushing Bay Sampling Period: **October 21, 2013 to May 7, 2014**  
(~25 Dry and ~65 Wet samples per location)

**Average DO > 9 mg/L across all Flushing Bay samples.**

**Dry & Wet Weather**

![Map of Flushing Bay with sampling locations marked]

- **Inner Bay**
- **Outer Bay**

**Graph:**
- **X-axis:** Sampling Locations
- **Y-axis:** Dissolved Oxygen, mg/L
- **Legend:**
  - Wet-weather
  - Dry-weather

**Data Points:**
- Inner Bay:
  - OW7: 9.7
  - OW7A: 9.3
  - OW7B: 9.4
  - OW7C: 9.4
  - OW8: 9.3
  - OW9: 9.5

- Outer Bay:
  - OW10: 9.2
  - OW11: 9.4
  - OW12: 9.1
  - OW13: 9.4
  - OW14: 9.3

**Additional Information:**
- **≥ 4.0 mg/L**
- **WQ Standard for Class I**
- **Includes LTCP and Harbor Survey Data**
Questions?
Existing Water Quality Improvement Projects
Green and Grey Infrastructure

Angela Licata
Deputy Commissioner
DEP – BEPA

Keith Mahoney, P.E.
Director of Water Quality Planning
DEP – BEDC
Green Infrastructure in New York City

Green Infrastructure (GI) collects stormwater runoff from impervious surfaces, such as streets and roofs, reducing flow to sewers.

$1.5 billion committed for GI Citywide to manage 1” of stormwater runoff in combined sewered areas to reduce CSO.

DEP will meet this goal through:
- Area-Wide Contracts
- Public Property Retrofits
- Grant Program for Private Property Owners
- Stringent Detention Rule for New Development

 ![Rain Gardens](image1.png)

 ![Permeable Pavers](image2.png)

 ![Green Roofs](image3.png)
More than 800 GI assets within streets, parks, and schools

113 Impervious Acres Managed

90% are ROW Rain Gardens (also known as bioswales)

Legend

- **BB-006 Drainage Area**
- **BB-008 Drainage Area**
- **CSO Outfalls**

**Area-Wide GI Contracts:**
- Constructed (190)
- In Construction (212)
- Final Design (401)
- In Design (5)
## Public Property Retrofits

**Stephen A Halsey Junior High School 157Q**
**63-55 102nd Street, Rego Park**

<table>
<thead>
<tr>
<th>Project Status</th>
<th>Parks/Playgrounds</th>
<th>Public Schoolyards</th>
<th>Total</th>
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<tbody>
<tr>
<td>Potential</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Preliminary</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Contract Plans</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>In Construction</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Constructed</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
<td><strong>3</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
Green Infrastructure Grant Program:
DEP provides funding for the design and construction costs of green infrastructure on private property in combined sewer areas of the City.

Green Roof Tax Abatement:
The City provides a one-year property tax abatement for private properties that install green roofs. The abatement value is $5.23 per square foot (up to the lesser of $200,000 or the building’s tax liability) and is available through March 2018.

New Private Incentive Program:
DEP is currently developing a new private property green infrastructure retrofit initiative to augment its current efforts on stormwater management on private property. The Agency released an RFI in September seeking ideas on innovative program management structures for this new initiative.

2012 Stormwater Rule:
In 2012, DEP amended the allowable flow rate of stormwater to the City’s combined sewer system for new and existing development. Site Connection Proposals may include green infrastructure technologies to meet the new allowable rate.
Grey Infrastructure

Results in CSO Reduction and Addresses Legacy CSO Odor Issues

Waterbody/Watershed Facility Plan (WWFP) Recommended Implementation of Three Grey Infrastructure Projects:

1) Divert Low-Lying Sewers / Raise Weir BB-02
2) Regulator Modifications
3) Environmental Dredging of Flushing Bay
1) Divert Low-Lying Sewers / Raise Weir BB-02

- Divert low-lying sewers in the vicinity of Bowery Bay WWTP and raise the weir at regulator BB-02

  - **Estimated Cost** = $5.6 Million
  - **Construction Completion** = December 2016
  - **Current Status** = In Construction
2) Regulator Modifications

- Bowery Bay high level interceptor regulator modifications at 5 regulators: BB-R4, BB-R5, BB-R6, BB-R9, and BB-R10

  - **Estimated Cost**
    - $41.4 Million

  - **Construction Completion**
    - June 2018

  - **Current Status**
    - Under Construction

- Achieve ~10% reduction in CSO discharges.
3) Environmental Dredging of Flushing Bay

- Removal of CSO related sediments that are exposed at low tides
- Dredge Area = 17.5 acres
- Dredge Quantity = 91,600 cubic yards
- Post-Dredge Depth = 4 feet below mean lower low water
- Removal of deteriorated piles and abandoned Pier head at Pier 2

- **Estimated Cost** = $39 Million
- **Current status** = Under Construction

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Complete Dredging &amp; Planting</td>
<td>March 2019</td>
</tr>
<tr>
<td>Complete Wetlands Maintenance</td>
<td>March 2021</td>
</tr>
</tbody>
</table>
Questions?
Preliminary Gap Analysis

Keith Mahoney, P.E.
Director of Water Quality Planning
DEP – BEDC
LTCP Baseline Assumptions

- Uses LTCP calibrated collections system and water quality models
- Accounts for population projections to 2040
- Committed grey and green infrastructure are implemented
- Flushing Creek LTCP preferred alternative is implemented
- Assumes all illicit discharges are abated
- Uses JFK Rainfall Records:
  - 2008 for screening analysis
  - 2002-2011 for detailed analysis

LTCP Typical Year Rainfall
(JFK 2008 – 46.3 inches)
Standard for WWFP
(JFK 1988 – 40.7 inches)
Modeled Flushing Bay CSO Volumes

Pre-WWFP

- BEFORE (1807 MGY)
  - 1041
  - 178
  - 532

LTCP Baseline (with Grey and Green WWFP Infrastructure Recommendations)

- AFTER (1,454 MGY)
  - 889
  - 38
  - 478

20% CSO Volume Reduction
### Fecal Coliform: Projected Attainment

<table>
<thead>
<tr>
<th>Station</th>
<th>% Attainment for Primary Contact Fecal (Monthly GM ( \leq 200 \text{ cfu/100 mL} ))</th>
<th>Time to Recover (hours) (Target ( \leq 1000 \text{ cfu/100 mL} ))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Annual</td>
<td>Recreational</td>
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<td></td>
<td>Baseline 100% FB CSO Control</td>
<td>Baseline 100% FB CSO Control</td>
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<tr>
<td>Flushing Creek</td>
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<tr>
<td>OW-3</td>
<td>58% – 83%</td>
<td>100%</td>
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<tr>
<td>OW-4</td>
<td>58% – 83%</td>
<td>100%</td>
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<td>OW-5</td>
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<td>OW-6</td>
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<tr>
<td>Inner Bay</td>
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<td>OW-7</td>
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<td>OW-7A</td>
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<td>Outer Bay</td>
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<td>OW-10</td>
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## Enterococci: Projected Attainment

<table>
<thead>
<tr>
<th>Station</th>
<th>% Attainment for Enterococci (30-Day Rolling GM ≤ 30 cfu/100 mL)</th>
<th>Time to Recover (hours) (Target ≤ 110 cfu/100 mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recreational</td>
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<td>Baseline 100% FB CSO Control</td>
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<td><strong>Flushing Creek</strong></td>
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<tr>
<td>OW-3</td>
<td>60% – 97%</td>
<td>78% – 100%</td>
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<td>OW-4</td>
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<td><strong>Inner Bay</strong></td>
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<td>OW-7</td>
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<tr>
<td>Station</td>
<td>% Attainment for Dissolved Oxygen (Acute, never less than 4 mg/L)</td>
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<td></td>
<td>Baseline</td>
<td>100% FB CSO Control</td>
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<td><strong>Flushing Creek</strong></td>
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<tr>
<td>OW-3</td>
<td>94% – 99%</td>
<td>97% – 100%</td>
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<td>OW-7B</td>
<td>100%</td>
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</table>
Questions?
CSO Reduction Alternatives Evaluation

James Mueller, P.E.
Deputy Commissioner
DEP – BEDC
1. Bacteria Source Component Analysis
   ✓ CSO, stormwater and direct drainage

2. Gap Analysis for Water Quality Standard (WQS) Attainment
   ✓ Calculate bacteria and dissolved oxygen for:
     ▪ Baseline Conditions
     ▪ 100% CSO Control Conditions

3. Assess Levels of CSO Control Necessary to Achieve WQS

4. Identify Technologies to Cost-Effectively Achieve the Required Level of CSO Control

Increasing CSO Reduction Potential

Sample Technologies:
- Storage
- Treatment
- System Optimization
- Source Control
## CSO Mitigation Toolbox

### INCREASING COMPLEXITY

<table>
<thead>
<tr>
<th>Source Control</th>
<th>Green Infrastructure</th>
<th>High-Level Sewer Separation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Optimization</strong></td>
<td>Fixed Weirs</td>
<td>Inflatable Dams</td>
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<td></td>
<td></td>
<td>Bending Weirs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control Gates</td>
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<td>Pump Station Expansion</td>
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<tr>
<td><strong>CSO Relocation</strong></td>
<td>Interceptor Flow Regulation</td>
<td>Flow Tipping to Other Watersheds</td>
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<td>Re-Purpose Corona Avenue Vortex Facility</td>
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<tr>
<td><strong>Water Quality / Ecological Enhancement</strong></td>
<td>Floatables Control</td>
<td>Dredging</td>
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<td>Aeration</td>
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<tr>
<td><strong>Treatment</strong></td>
<td>Outfall Disinfection</td>
<td>Retention Treatment Basin (RTB)</td>
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<td>High Rate Clarification (HRC)</td>
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<td>WWTP Expansion</td>
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<td><strong>Storage</strong></td>
<td>In-System</td>
<td>Shaft</td>
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<td></td>
<td>Tank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tunnel</td>
</tr>
</tbody>
</table>

- **Ongoing projects identified in Waterbody / Watershed Facility Plan**
- **Preliminary evaluations were conducted for many CSO mitigation options**
Potential Sites

- **LUYSTER CREEK SITE**
- **BOWERY BAY WWTP**
- **FLUSHING BAY PROMENADE**
- **GRAND CENTRAL PARKWAY MEDIANs**
- **CITIFIELD**
- **CORONA AVENUE VORTEX FACILITY**

Legend:
- Outfall
- Interceptor
- Outfall Sewer
- Potential Sites
- Bowery Bay WWTP

= Retained Sites
= Eliminated Sites

Scale: 0 625 1,250 2,500 3,750 5,000 Feet
Sites and Alternatives under Further Review

1. Ingrahams Mountain
   - Tunnel and Pump Station
   - Tunnel and High Rate Clarification

2. Luyster Creek
   - Tunnel and Pump Station
   - Tunnel and High Rate Clarification

3. Grand Central (GC) Parkway Medians
   - In-System Storage

4. Corona Avenue Vortex Facility (CAVF)
   - Retention Treatment Basin with Seasonal Disinfection
CSO Storage Tunnel Route:

- From BB-006 and BB-008 along Astoria Blvd. to Ingrahams Mountain

---

<table>
<thead>
<tr>
<th>CSO Control</th>
<th>Tunnel Diameter</th>
<th>CSO Storage Volume</th>
<th>Dewatering Pump Station</th>
<th>High Rate Clarification</th>
<th>20-Year Net Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>10 ft.</td>
<td>8 MG</td>
<td>20 MGD</td>
<td>-</td>
<td>$430 Million</td>
</tr>
<tr>
<td>50%</td>
<td>18 ft.</td>
<td>25 MG</td>
<td>50 MGD</td>
<td>-</td>
<td>$600 Million</td>
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<tr>
<td>75%</td>
<td>18 ft.</td>
<td>25 MG</td>
<td>-</td>
<td>60 MGD</td>
<td>$880 Million</td>
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<tr>
<td>100%</td>
<td>18 ft.</td>
<td>25 MG</td>
<td>-</td>
<td>400 MGD</td>
<td>$2,050 Million</td>
</tr>
</tbody>
</table>

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Legend:
- Outfall
- Intermediate Shaft
- Regulator
- Proposed CSO Conveyance (BB-006, BB-008)
- Outfall Sewer
- Interceptor
- Bowery Bay WWTP
- Ingrahams Mountain Site
Luyster Creek Site

CSO Storage Tunnel Route:

- From BB-006 and BB-008 along Astoria Blvd. to Luyster Creek site west of the Bowery Bay WWTP

<table>
<thead>
<tr>
<th>CSO Control</th>
<th>Tunnel Diameter</th>
<th>CSO Storage Volume</th>
<th>Dewatering Pump Station</th>
<th>High Rate Clarification</th>
<th>20-Year Net Present Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>25%</td>
<td>9 ft.</td>
<td>9 MG</td>
<td>20 MGD</td>
<td>-</td>
<td>$530 Million</td>
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<tr>
<td>50%</td>
<td>16 ft.</td>
<td>25 MG</td>
<td>50 MGD</td>
<td>-</td>
<td>$630 Million</td>
</tr>
<tr>
<td>75%</td>
<td>16 ft.</td>
<td>25 MG</td>
<td>-</td>
<td>60 MGD</td>
<td>$950 Million</td>
</tr>
<tr>
<td>100%</td>
<td>16 ft.</td>
<td>25 MG</td>
<td>-</td>
<td>400 MGD</td>
<td>$2,120 Million</td>
</tr>
</tbody>
</table>
In-System Storage within Outfalls BB-006 and BB-008

- Install bending weirs, baffles & dewatering pump stations along Outfalls BB-006 and BB-008 with force main to return captured CSO to the High Level Interceptor

Total Available CSO Storage Volume

- ≈ 6.5 MG

20-Year Net Present Value:

- ≈ $120 Million
Corona Avenue Vortex Facility Site

- Re-purpose the existing CAVF as a Retention Treatment Basin with screening and disinfection (15 minute contact time)
- Remote dechlorination facility (1 minute contact time)
- Install tide gates on outfalls

20-Year Net Present Value: \( \approx $60 \text{ Million} \)
%CSO Volume and Bacteria Reduction vs. Cost

- CAVF = Corona Avenue Vortex Facility Site
- GCPM = Grand Central Parkway Medians
- IM = Ingrahams Mountain Site
- LC = Luyster Creek Site

Graph showing the relationship between net present value and the percentage of CSO volume and bacteria reduction for various sites and projects.
Frequency of Overflow vs. Cost

- **CAVF** = Corona Avenue Vortex Facility Site
- **GCPM** = Grand Central Parkway Medians
- **IM** = Ingrahams Mountain Site
- **LC** = Luyster Creek Site
Questions?
Next Steps

Mikelle Adgate
Director of Stormwater Outreach
DEP – BPA
Next Steps

- LTCP Submittal to NYSDEC by December 30, 2016

- Public Comments will be accepted for Flushing Bay through November 30, 2016
  - There will be subsequent comment periods following the Final Plan Review Meeting.

- Comments can also be submitted to:
  - New York City DEP at: ltcp@dep.nyc.gov
Visit the informational tables tonight for handouts and poster boards with detailed information.

Go to [www.nyc.gov/dep/ltcp](http://www.nyc.gov/dep/ltcp) to access:

- LTCP Public Participation Plan
- Presentation, handouts and poster boards from this meeting
- Links to Waterbody/Watershed Facility Plans
- CSO Order including LTCP Goal Statement
- NYC’s Green Infrastructure Plan
- Green Infrastructure Pilots 2011 and 2012 Monitoring Results
- NYC Waterbody Advisory Program
- Upcoming meeting announcements
- Other LTCP updates