<table>
<thead>
<tr>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Welcome and Introduction</td>
<td>Mikelle Adgate</td>
</tr>
<tr>
<td>2  Investments and Spending Priorities</td>
<td>Angela Licata</td>
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<tr>
<td>2  Overview of Baseline Conditions</td>
<td>Pinar Balci</td>
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<td>3  Overview of Recommended Plan</td>
<td>Keith Mahoney</td>
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<tr>
<td>4  City-wide Integrated Floatables Program</td>
<td>Pinar Balci</td>
</tr>
<tr>
<td>6  Next Steps</td>
<td>Mikelle Adgate</td>
</tr>
</tbody>
</table>
Welcome and Introduction

Mikelle Adgate
DEP
What is a Combined Sewer Overflow (CSO)?

- NYC’s sewer system is approximately 60% combined, which means it is used to convey both sanitary and storm flows.

- 65% to 90% of combined sanitary and storm flow is captured at wastewater resource recovery facilities (WRRFs).

- When the sewer system is at full capacity, a diluted mixture of rainwater and sewage may be released into local waterways. This is called a combined sewer overflow (CSO).
What is a LTCP and CSO Consent Order?

**Long Term Control Plan (LTCP)**
- identifies appropriate CSO controls to achieve applicable water quality standards
- consistent with the Federal CSO Policy and Clean Water Act

**CSO Consent Order**
- an agreement between NYC and DEC that settles past legal disputes without prolonged litigation
- DEC requires DEP to develop LTCPs and mitigate CSOs
# LTCP Milestone Status

<table>
<thead>
<tr>
<th>ID</th>
<th>LTCP</th>
<th>Approved?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Alley Creek</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>Westchester Creek</td>
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<tr>
<td>3</td>
<td>Hutchinson River</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>Flushing Creek</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>Bronx River</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Gowanus Canal</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td>Coney Island Creek</td>
<td>✓</td>
</tr>
<tr>
<td>8</td>
<td>Flushing Bay</td>
<td>✓</td>
</tr>
<tr>
<td>9</td>
<td>Newtown Creek</td>
<td>✓</td>
</tr>
<tr>
<td>10</td>
<td>Jamaica Bay and Tributaries⁽¹⁾</td>
<td>Under DEC review</td>
</tr>
<tr>
<td>11</td>
<td>Citywide/Open Waters⁽²⁾</td>
<td>LTCP in development Due to DEC March 2020</td>
</tr>
</tbody>
</table>

(1) Jamaica Bay includes Thurston Basin, Bergen Basin, Hendrix Basin, Fresh Creek, Spring Creek, Paerdegat Basin and Jamaica Bay

(2) Citywide/Open Waters LTCP includes East River, Lower Long Island Sound, Hudson River, Harlem River, Lower and Upper New York Bay, Arthur Kill and Kill Van Kull
Citywide/Open Waters LTCP

- Waterbody-specific CSO evaluation of Open Waters:
  - Harlem River
  - Hudson River
  - East River/Long Island Sound
  - Upper and Lower New York Bay
  - Arthur Kill and Kill Van Kull

- Citywide/Open Waters LTCP will be submitted to DEC in March 2020
Citywide/Open Waters LTCP Public Meetings

Kickoff Meetings:
- Harlem River/Hudson River: January 31, 2018
- Kill van Kull, Arthur Kill, New York Bay: March 27, 2018
- East River/Long Island Sound Meeting: May 10, 2018

Update Meeting: April 16, 2019

Retained Alternatives Meetings:
- Tibbetts Brook Meeting: October 2, 2019
- Retained Alternatives Meeting: October 15, 2019
- Staten Island Meeting: November 6, 2019
Investments and Spending Priorities

Angela Licata
DEP
DEP Investments and CSO Reduction
Enterococci GM and STV WQS adopted for Class SA and coastal Class SB waters by DEC in June 2019 with an effective date of Nov 1, 2019. Applies to following NYC waters evaluated under this OW LTCP – Long Island Sound, Upper New York Bay and portion of Lower New York Bay. Attainment with Enterococci WQS discussed later in presentation.
• Water demand has declined more than 40% since 1990
• Population increased by more than one million people
• Rates have more than doubled (adjusted for inflation) since 2000 to meet the increasing cost of service
DEP’s $20B 10-Year Capital Plan

- **8%** Southeast Queens Sewer Construction
- **11%** Water Main Construction
- **15%** Sewer Construction
- **26%** Mandates
- **4%** Drinking Water Dependability
- **2%** Other
- **34%** State of Good Repair

**FY20 September Plan**
(FY 2020-2029)

**Liner for Del Aqueduct Bypass Tunnel**

**Storm Sewer, Southeast Queens**
Balancing Investments

- Protecting public health
- Supporting economic growth
- Affordable & sustainable rates and customer assistance programs
- Climate actions & energy recovery
- Environmental justice
- Ecosystem restoration & species protection
- Improving drinking water quality & receiving water protection
- Addressing aging infrastructure
LTCP Program Commitments and Benefits

- Existing Grey Infrastructure Projects/GI Areas
- LTCP Projects

**Westchester Creek**
- $126M
- $0

**Bronx River**
- $46M
- $185M

**Newtown Creek**
- $262
- $1,335M

**Gowanus Canal**
- $198M
- $1,180M

**Paerdegat Basin**
- $394M
- $0

**Coney Island Creek**
- $197M
- $0

**Hutchinson River**
- $3M
- $167M

**Alley Creek**
- $141M
- $12M

**Flushing Creek**
- $363M
- $92M

**Flushing Bay**
- $71M
- $1,616M

**Jamaica Bay & Tribs.**
- $706M
- $579M

**Open Waters**
- $196M
- $72M

**Total**

- **Untreated CSO Volume Reduction**
  - 5.6 BGY
  - 3.5 BGY

- **Investment**
  - $4.3 B
  - $5.2 B

- **WWFP CSO and GI Program**
- **LTCP CSO Program**
Questions
Overview of Baseline Conditions

Pinar Balci, PhD
DEP
Citywide/Open Waters LTCP Baseline Conditions

- Grey Infrastructure Projects
  - WWFP Projects
  - Tributary LTCPs

- Green Infrastructure Projects
  - Right-of-way Green Infrastructure
  - Public Property Retrofits
  - Private Property Incentives
  - Stormwater Rules
  - Demand Management
  - Tibbetts Brook Daylighting
Green Infrastructure Program Snapshot

- Installed over 4,500 assets
- Over 7,000 GI assets going into construction in 2019-2021

Source: DEP Green Infrastructure Program Map (publicly accessible)
- **435 Assets**
  Constructed and In-Construction

- **181 MGY**
  of Stormwater Managed

- **144 Equivalent Greened Acres**
ROW Cloudburst Swales & SW Greenstreets
ROW Porous Concrete
Key Partnerships:

- NYC Housing Authority
- NYC Parks
- NYC Department of Education
- DDC Public Buildings Portfolio (Library, Fire, Police, Other)

Public Property Retrofits

Public Parks
Astoria Heights Playground, Queens

Public Schools
Winthrop Campus, Brooklyn

Public Housing
Hope Gardens, Brooklyn
Public Property - TPL Partnership
Green Infrastructure Grant Program

- More than $13M committed to date to 32 projects
- New green roof incentive schedule released in 2018 – up to $30/SF
- Shifting focus to green roof retrofits

Private Property Retrofit Program

- $53M RFP released Nov 2018
- Program administrator selected in June 2019
- 200 Greened Acres in 5 years starting in 2020
- Properties > 50,000 SF

Unified Stormwater Rule

- Legislation introduced January 23rd, 2020
- Expands MS4 Requirements into CSO Areas
- New Rule currently being drafted
- Rule will update stormwater quantity and flow rates (superseding 2012 Performance Standard)
- Reduces construction/post-construction program threshold and adds requirements for infiltration
- Result will be a Citywide Stormwater Management Program
Demand Management Projects

Central Park Jackie Onassis Reservoir Recirculation Project
- 0.83 MGD of potable water savings
- CSO reduction of about 4 MG/yr to the East River

Prospect Park Valve Replacement Project
- 0.80 MGD of potable water savings
- CSO reduction of about 12 MG/yr to New York Bay
Tibbetts Brook Baseline Project

Daylighting Tibbett’s Brook Base Flow plus additional storm flow, with Van Cortlandt Lake Improvements

Open Channel Cross Section

- Reroutes flow from Van Cortlandt Lake, away from Broadway Sewer
- Daylighted stream along former CSX right-of-way, discharging directly to Harlem River
- Reducing CSO flows from WI-056
- No siphon needed
- Open Channel flow up to 31 cfs

<table>
<thead>
<tr>
<th>CSO Reduction</th>
<th>Cost Estimate</th>
<th>Cost per CSO Volume Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>228 MGY</td>
<td>$63 Million</td>
<td>$0.28/gal</td>
</tr>
</tbody>
</table>
The proposed open channel would sit above the sewer crossings and be designed for a baseflow of 14 cfs (8.8 MGD). Greenway paths would run parallel to the open channel.
Proposed Improvements at Van Cortlandt Lake

- Increase storage through downstream overflow weir modification and construction of a new weir
- Lake restoration through creation of an additional 0.85 acre of wetlands
Proposed Improvements at Van Cortlandt Lake

- Modification of Existing Weir
- New Weir Structure

- Major Deegan Expwy.
- Van Cortlandt Golf Course
- Van Cortlandt Lake
- Sports Fields
Questions
Overview of Recommended Plan

Keith Mahoney, PE
DEP
### WQS Attainment Chart

#### Summary of WQ Standards Compliance

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Classification</th>
<th>Fecal Coliform Monthly GM(1)</th>
<th>Enterococci 30-day GM(2)</th>
<th>Enterococci 30-day STV(2)</th>
<th>Dissolved Oxygen (DO)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Baseline Conditions</td>
<td>100% CSO Control</td>
<td>Baseline Conditions</td>
<td>100% CSO Control</td>
</tr>
<tr>
<td>Harlem River</td>
<td>Class I</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hudson River</td>
<td>Class SB</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Class I</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>East River/LIS</td>
<td>Class SB (2)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Class I</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>New York Bay</td>
<td>Class SB (2)</td>
<td>✓</td>
<td>✓</td>
<td>✓ (3)</td>
<td>✓ (3)</td>
</tr>
<tr>
<td>Kill van Kull</td>
<td>Class SD</td>
<td>✓ (3)</td>
<td>✓ (3)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Arthur Kill</td>
<td>Class SD</td>
<td>✓ (3)</td>
<td>✓ (3)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Class I</td>
<td>✓ (3)</td>
<td>✓ (3)</td>
<td></td>
<td>✓ (3)</td>
</tr>
</tbody>
</table>

(1) Fecal Coliform attainment is assessed on an annual basis.

(2) Enterococci attainment is assessed for the recreational season (May 1st – Oct 31st) for SB coastal waters.

(3) There are additional loadings other than NYC CSO discharges that prevent full attainment with WQS.
Key Take-Aways for Alternatives Analysis

- Over $9B in investments have been made or committed as part of the CSO Program to date.

- Annual CSO volume is small percentage of total volume treated at WRRFs.
  *Based on only on outfalls and WRRFs associated with citywide open waters and the 2008 JFK Typical Year rainfall.

- Baseline water quality shows high levels of attainment with applicable WQS.

- CSO volume to be captured increases significantly with increasing level of control.
Overview of Alternatives Analysis

Approach:

- Toolbox defines technologies to be assessed
- Range of levels of CSO control evaluated per EPA CSO Policy
- Multiple iterations of screening steps to identify alternatives to be retained for cost/benefit evaluations presented in LTCP
- Screening considers:
  - Hydraulic/operational feasibility
  - CSO reduction
  - Cost
  - Siting availability
  - Impact on attainment of Water Quality Standards

- Screening process resulted in focus on system optimization alternatives and tunnel storage

Retained Alternatives from the 10/15/19 Meeting can be found online at www.nyc.gov/dep/ltcp
System Optimization Analysis Summary

Targeted 100 monitored BMP regulators and prioritized CSO reduction from outfalls adjacent to public access locations

- Evaluation was driven by system hydraulics and optimizing flow delivery
- Selection of alternatives limited by constraints on increasing water levels in the sewers
- Analysis demonstrated that the existing system is currently being operated as designed to maximize hydraulic flow delivery while also protecting the WRRFs
## Summary of Optimization Evaluations

Alternatives *excluded from* the Recommended Plan:

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Alt.</th>
<th>Description</th>
<th>CSO Volume Reduction&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>Est. Probable Bid Cost</th>
<th>Cost Effective</th>
<th>No Add'l CSO to Tribs</th>
</tr>
</thead>
</table>
| Harlem River | HAR-1 | - Optimization of regulators associated with Outfalls NR-007, 008, 009, 010, 017  
- Relocate and upsize portion of Main Interceptor | 16 MGY | $35M | ✗ | ✓ |
| Harlem River | HAR-2 | - Optimization of regulators associated with Outfalls NR-008 and NR-010  
- Relocate and upsize portion of Main Interceptor | 15 MGY | $31M | ✗ | ✓ |
| Hudson River | HUD-1 | - Optimization of regulators associated with HUD-2 Outfalls plus NR-022, 023, 026, 027, 031, 032, 035 | 9 MGY | $19M | ✗ | ✗ |
| East River | ER-1 | - Optimization of regulator associated with Outfall HP-025 | 30 MGY | $16M | ✓ | ✗ |
| East River | ER-2 | - Optimization of regulators associated with Outfalls HP-016, 018, 019, 025 | 30 MGY | $24M | ✓ | ✗ |
| East River | ER-3 | - Optimization of regulators associated with Outfalls TI-003, 022 | 102 MGY | $4M | ✓ | ✗ |
| East River | ER-4 | - Optimization of regulators associated with Outfalls TI-003, 022, 023 | 122 MGY | $7M | ✓ | ✗ |
| East River | ER-5 | - Bending Weir at Regulator TI-13, Outfall TI-023 | 42 MGY | $3M | ✗ | ✓ |
### Summary of Optimization Evaluations

#### Alternatives *included in* the Recommended Plan:

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Alt.</th>
<th>Description</th>
<th>CSO Volume Reduction&lt;sup&gt;(1)&lt;/sup&gt;</th>
<th>Est. Probable Bid Cost</th>
<th>Cost Effective</th>
<th>No Add'l CSO to Tribs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hudson River</td>
<td>HUD-2</td>
<td>• Optimization of regulators associated with Outfalls NR-038, 040, 046</td>
<td>7 MGY</td>
<td>$3M</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>East River</td>
<td>ER-6</td>
<td>• Bending weir at Regulator TI-13 (TI-023) plus regulator optimization associated with TI-003</td>
<td>86 MGY</td>
<td>$6M</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>New York Bay</td>
<td>NYB-1</td>
<td>• Optimization of regulators associated with CSOs RH-005, 014</td>
<td>15 MGY</td>
<td>$6M</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>NYB-2</td>
<td>• Gravity flow connection from Victory Boulevard combined sewer directly to interceptor, bypassing Hannah Street PS, diverting dry and wet weather flow upstream of CSO PR-013</td>
<td>43 MGY</td>
<td>$22M</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>NYB-3</td>
<td>• RTC gate for Regulator 9C, Outfall OH-015</td>
<td>90 MGY</td>
<td>$5M</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Recommended Plan Project: HUD-2

Hudson River Waterbody
Alternative HUD-2

Optimization of regulators associated with Outfalls NR—038, 040, 046

10 MGY
CSO reduction to Hudson River

3 MGY*
CSO increase to Harlem River

7 MGY
Net CSO volume reduction

$3M
Estimated probable bid cost

28
activation reductions

✓ Fecal attainment maintained
✓ DO attainment maintained

*Tibbetts daylighting project will reduce CSOs to Harlem River by 228 MGY
Recommended Plan Project: ER-6

East River Waterbody
Alternative ER-6

Bending weir at outfall TI-023 plus optimization of the regulator associated with outfall TI-003

86 MGY
CSO reduction to East River

$6M
Estimated probable bid cost

34 activation reductions

- Fecal attainment maintained
- Entero GM & STV attainment maintained
- DO attainment maintained
Recommended Plan Project: NYB-1

New York Bay
Alternative NYB-1

Optimization of regulators associated with CSOs RH-005 and 014

15 MGY
CSO reduction to Upper New York Bay

$6M
Estimated probable bid cost

14
activation reductions

✔ Fecal attainment
✔ Entero GM attainment
✘ Entero STV attainment
✔ DO attainment
Recommended Plan Project: NYB-2

**New York Bay**
**Alternative NYB-2**

Gravity flow connection from Victory Blvd combined sewer to interceptor, bypassing Hannah St PS
Diverts dry and wet weather flow upstream of CSO PR-013

- **43 MGY**
  CSO reduction to Upper New York Bay
- **$22M**
  Estimated probable bid cost
- **50**
  activation reductions
- ✓ Fecal attainment
- ✓ Entero GM attainment
- ✗ Entero STV Attainment
- ✓ DO attainment
Recommended Plan Project: NYB-3

New York Bay
Alternative NYB-3

Real time control gate at Regulator 9C, Outfall OH-015

90 MGY
CSO reduction to Lower New York Bay

$5M
Estimated probable bid cost

-3
activation reductions

✓ Fecal attainment
✓ Entero GM attainment
✗ Entero STV Attainment
✓ DO attainment
Recommended Plan WQ Attainment

WQ Standards Compliance

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<tr>
<td>East River/LIS</td>
<td>Class SB (coastal waters)</td>
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<td>yes</td>
<td>yes</td>
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<td>New York Bay</td>
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<td>yes</td>
<td>x</td>
<td>yes</td>
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<tr>
<td>Kill van Kull</td>
<td>Class SD</td>
<td>x&lt;sup&gt;(3)&lt;/sup&gt;</td>
<td></td>
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(2) Enterococci attainment is assessed for the recreational season (May 1<sup>st</sup> – Oct 31<sup>st</sup>) for SB coastal waters.

(3) There are additional loadings other than NYC CSO discharges that prevent full attainment with WQS.
Overview of the Recommended Plan

Citywide/Open Waters LTCP
CSO Outfalls

- Hudson River
- New York Bay
- East River

HUD-2
Optimization of regulators

NYB-1
Optimization of regulators

NYB-2
Gravity flow diversion around the Hannah Street Pump Station

NYB-3
Automated gate for Regulator 9C

Tibbetts Brook Daylighting
(Harlem River)
Total Cost: $63M
Total CSO Volume Reduction: 228 MGY

ER-6
TI-003 Bending weir and TI-003 Regulator optimization
Overview of the Recommended Plan

Net Reduction in CSO Volume¹
- 6% NYB-1 (15 MGY)
- 18% NYB-2 (43 MGY)
- 3% HUD-2 (7 MGY)
- 36% ER-6 (86 MGY)

Total Reduction: 241 MGY

CSO Activation Reduction¹
- NYB-2: 50
- NYB-1: 14
- NYB-3: -3
- ER-6: 34
- HUD-2: 28

Projected Escalated Cost²
- NYB-2: $38M
- NYB-1: $10M
- NYB-3: $9M
- ER-6: $10M
- HUD-2: $5M

Total: $72M

(1) Based on 2008 JFK Typical Year Rainfall

(2) Projected CSO LTCP escalated costs includes design/DSDC escalated to mid-point of design and construction/CM escalated to mid-point of construction
Questions
City-wide Integrated Floatables Program

Pinar Balci, PhD
DEP
Public Education and Outreach

Awareness Campaigns and Stewardships

Clean Streets = Clean Beaches
Bring It.
Trash It. Don’t Flush It.
Community Clean-ups

Talk Trash New York
Adopt-a-Basket
Forgot your bag?
Don’t Trash Our Waters
Public Education and Outreach

Education Programs and Trash Free Waters Challenge

- School Sustainability Coordinator Trainings
- Catch Basin Marking
- SAFE Disposal Event
  Queens SAFE Disposal Event
  Saturday, Oct. 12th
  10am–4pm
  Cunningham Park Parking Lot
- Special Waste Drop Off Sites
- BetterBin Competition
- Environmental Education
Regulatory Measures

- Prohibitions and fines for littering and illegal dumping
- Requirements for property owners to keep sidewalks, gutters, backyard areaways, and alleys clean
- Styrofoam Ban - in effect on January 1, 2019
- Single-use plastic bags ban (NYS) with five cent fee for paper bag (NYC) - in effect on March 1, 2020
- Executive Order banning City Agencies from purchasing single-use plastic foodware
Street Sweeping and Public Litter Baskets

A Department of Sanitation (DSNY) mechanical broom

Litter Basket Inventory

Includes DSNY, BID, and DSNY approved but privately owned baskets
Citywide Integrated Floatables Program

Street Sweeping

Catch Basin Hooding

Netting/Booms

Wastewater Resource Recovery Facility (WRRF)

96% of citywide street litter (floatables) is captured (1)

55% Street Sweeping

34% Catch Basin Hoods

4% WRRF

3% Netting/Booms

Citywide Floatables Capture

(1) Source: NYC Stormwater Management Program, NYCDEP, August 2018

Legend
- Containment Boom
- End-of-Pipe Net
- Off-Loading facility

Skimmer Boats
• Signature Campaign
  **Clean Streets = Clean Beaches**
  was launched in the 1990s

• DEP is seeking to refresh messaging

• Conducted an online survey with over 200 New Yorkers

• Focus-group tested multiple campaigns
Questions
Next Steps

Mikelle Adgate
DEP
• LTCP Retained Alternatives Summary was released in October 2019

• LTCP Recommended Plan Summary is now available online at nyc.gov/dep/ltcp

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  1. Introduction
  2. CSO Best Management Practices
  3. Grey Infrastructure Strategies
  4. Green Infrastructure Strategies
  5. Summary of Submitted Tributary LTCPs
  6. Baseline Conditions for LTCP Models
  7. WQS Attainment and Alternatives Screening
  8. Waterbody Snapshots and Retained Alternatives
  9. The Recommended Plan
  10. Public Outreach
  11. Affordability and Financial Capability

Public Comments on the Recommended Plan are due to ltcp@dep.nyc.gov by March 2nd, 2020
Citywide/Open Waters LTCP Public Outreach

- 2018 Annual Public Meeting
- Stakeholder Briefing
- Retained Alternatives Public Meeting (10/15)
- Harlem River Briefing (10/2)
- LTCP Recommended Plan Public Meeting
- LTCP Recommended Plan Comments Due
- LTCP Retained Alternatives Comments Due
- LTCP Retained Alternatives Summary
- LTCP Summary

- Citywide/Open Waters LTCP Submittal to DEC
  - Complete LTCP Report
  - Response to Public Comments
Visit the DEP Website for more information: www.nyc.gov/dep/ltcp

- Monthly Updates on the Citywide LTCP
- Citywide LTCP Content: sampling information, baseline information etc.
- CSO Order including LTCP Goal Statement
- Links to Waterbody/Watershed Facility Plans
- Presentations, Meeting Materials and Meeting Summaries
- LTCP Brochure and Waterbody Fact Sheets
- All Submitted LTCP Reports and Other LTCP Updates
- NYC’s Green Infrastructure Reports and Grant Program
- Green Infrastructure Interactive Map of Projects
- NYC Waterbody Advisory Program
- Upcoming Meeting Announcements
Thank You!
Selection of 2008 Rainfall as Typical Year

Annual JFK Rainfall

1988 40.7 inches

5 year running average

2008 46.3 inches