



**Environmental
Protection**

Proposed Modifications to Newtown Creek Long Term Control Plan

Current Newtown Creek CSO LTCP

LTCP for Newtown Creek was approved by NYS DEC in April 2018.

This plan includes:

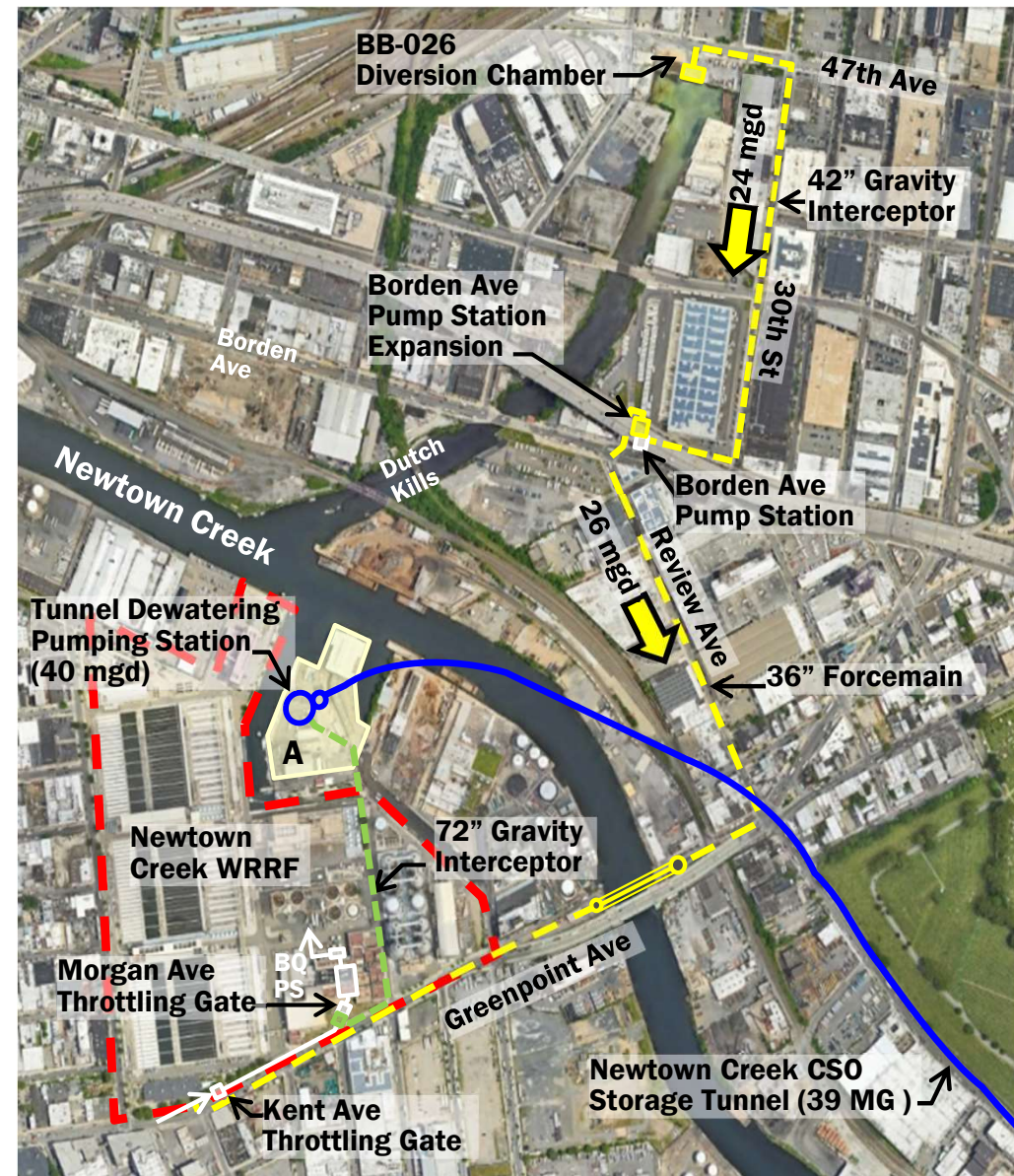
1. Expanding the Borden Avenue Pump Station that pumps to the Newtown Creek Wastewater Resource Recovery Facility
2. Construction of a new storage tunnel that can hold 39 million gallons of overflow

PROS:

- ✓ Would **reduce CSOs** into Newtown Creek by **720 million gallons per year**
- ✓ Would start seeing some **CSO reduction more quickly** by completing pump station project before tunnel

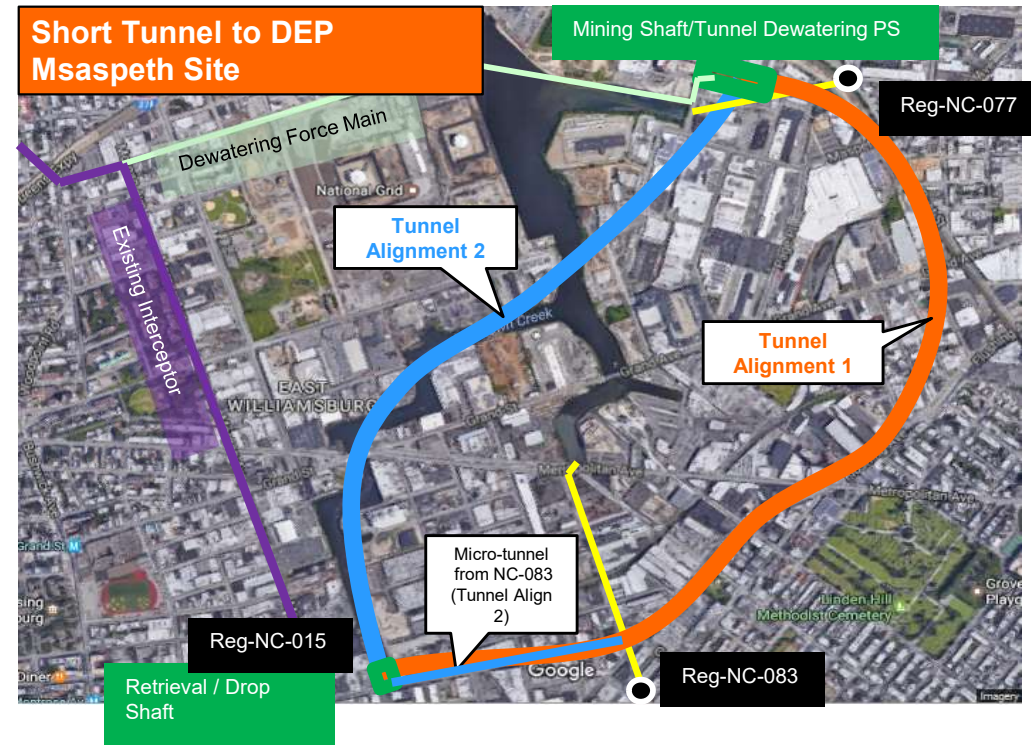
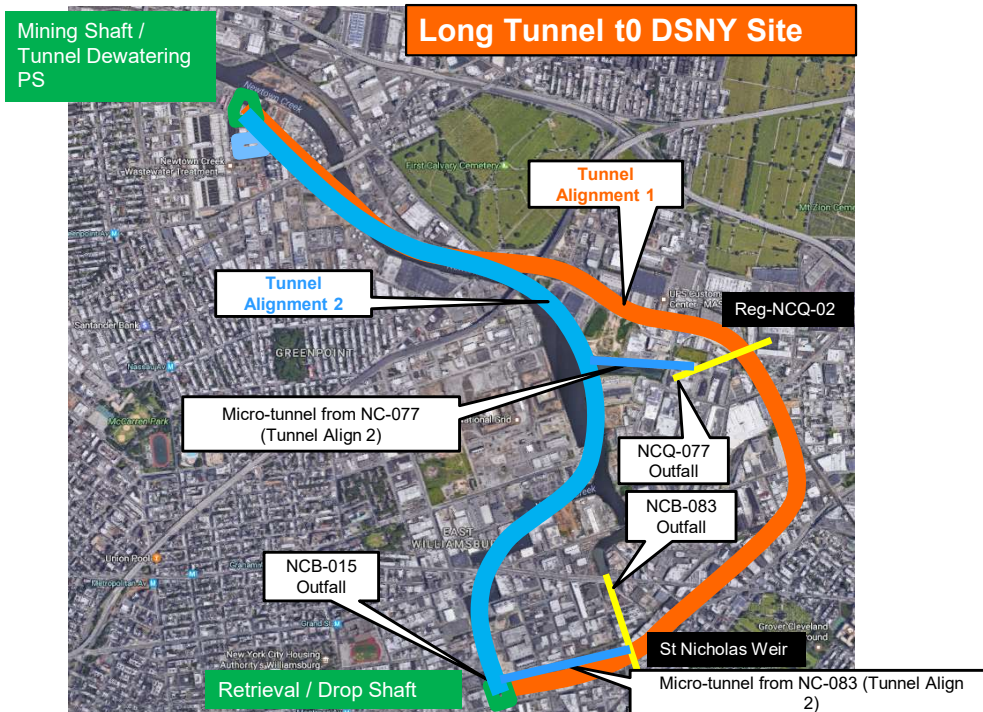
CONS:

- × **75 million gallons per year of CSO** would be **displaced** into the **East River** (Bushwick Inlet & Wallabout Channel)
- × **Significant roadwork** required on **Greenpoint Avenue**



Newtown Creek CSO LTCP Tunnel Alternatives

- The approved LTCP wasn't sure what sites would be available to construct the tunnel, so it included a short tunnel that would terminate at the DEP Yard in Maspeth and a long Tunnel that would terminate near the NC WRRF



Components of Alternatives

- Mining shaft
- Grit removal/screenings shaft
- Tunnel dewatering pump station in rock cavern, with dewatering force main
- Access shafts for pump station
- Above-grade building for electrical/HVAC
- Rock tunnel
- TBM retrieval/drop shaft
- Microtunnel connecting conduits (for Alignment 1 options)
- Diversion structures at outfalls

Proposed Modification to LTCP

DEP is proposing to modify the LTCP based on ongoing design analyses that include:

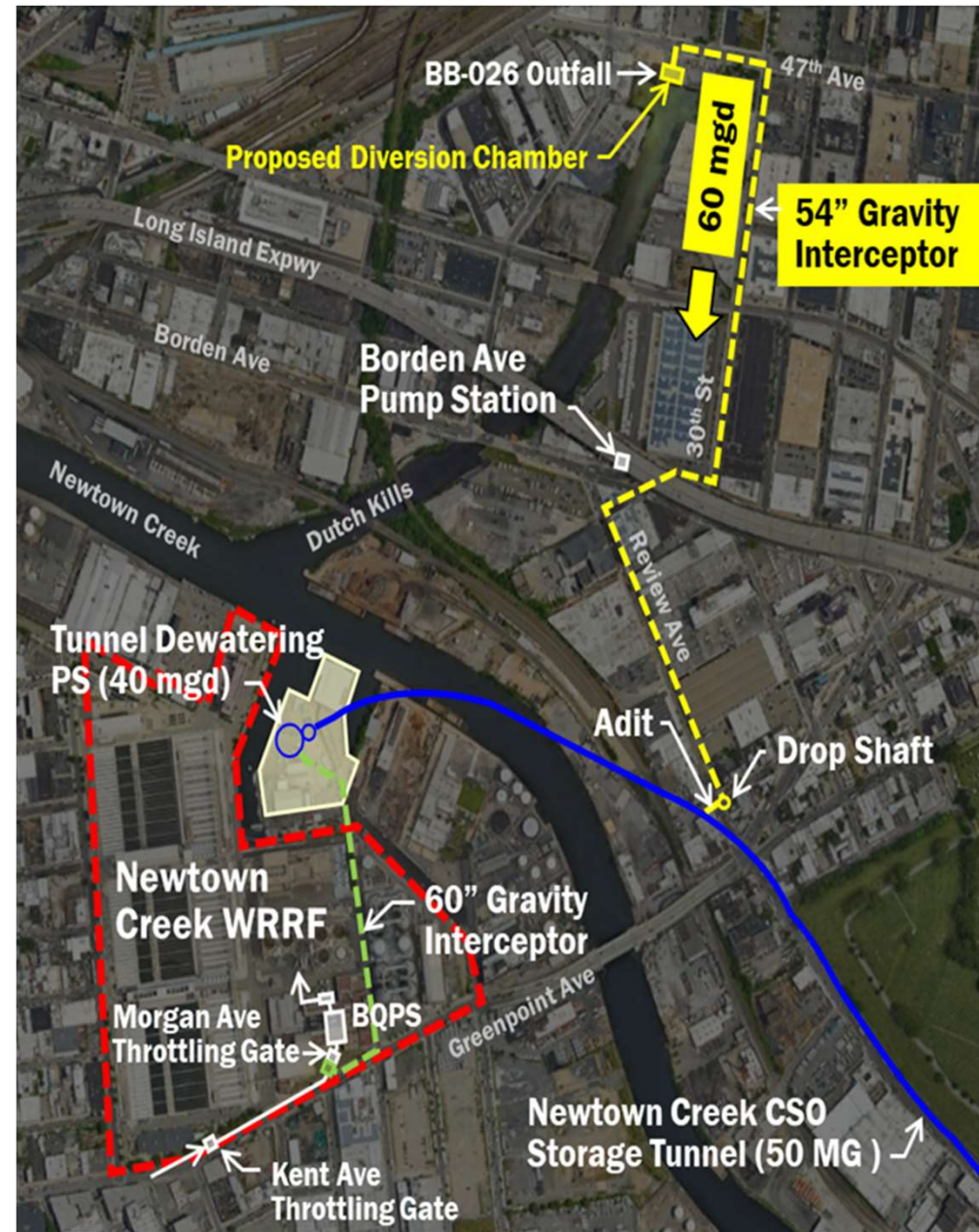
- Expanding CSO tunnel size to capture 50 million gallons (+11 million gallons from current plan)
- Eliminating the Borden Avenue Pump Station expansion

PROS:

- ✓ **Reduces CSO** into Newtown Creek by a total of **760 million gallons per year** (40 million gallons per year reduction from original LTCP)
- ✓ **Reduces CSO diverted to East River** by over **100 million gallons per year** from approved LTCP (reductions in CSO at Bushwick Inlet & Wallabout Channel)
- ✓ **Higher water quality attainment**, particularly for Dutch Kills
- ✓ **No further action would be required by the EPA**, as this exceeds CSO reductions in the approved LTCP
- ✓ Similar schedule and capital cost to 39 million gallons tunnel, with lower operational and power costs than approved LTCP
- ✓ **Eliminates construction along Greenpoint Avenue** needed to connect forcemain

CONS:

- × Any CSO reduction benefits from Borden Avenue Pump Station expansion would not take effect until tunnel is constructed



Preliminary Design Phase:

- Tunnel alignment narrowed to two potential routes.
- Final site selection for each of four project areas complete. Property acquisition process initiated for each selected site.
- Tunnel dewatering pump station configuration options under evaluation.
- Performed some preliminary siting investigations near Dutch Kills that would be needed to support this modification

Upcoming Activities:

- Facility Plan development (draft due March 2024).

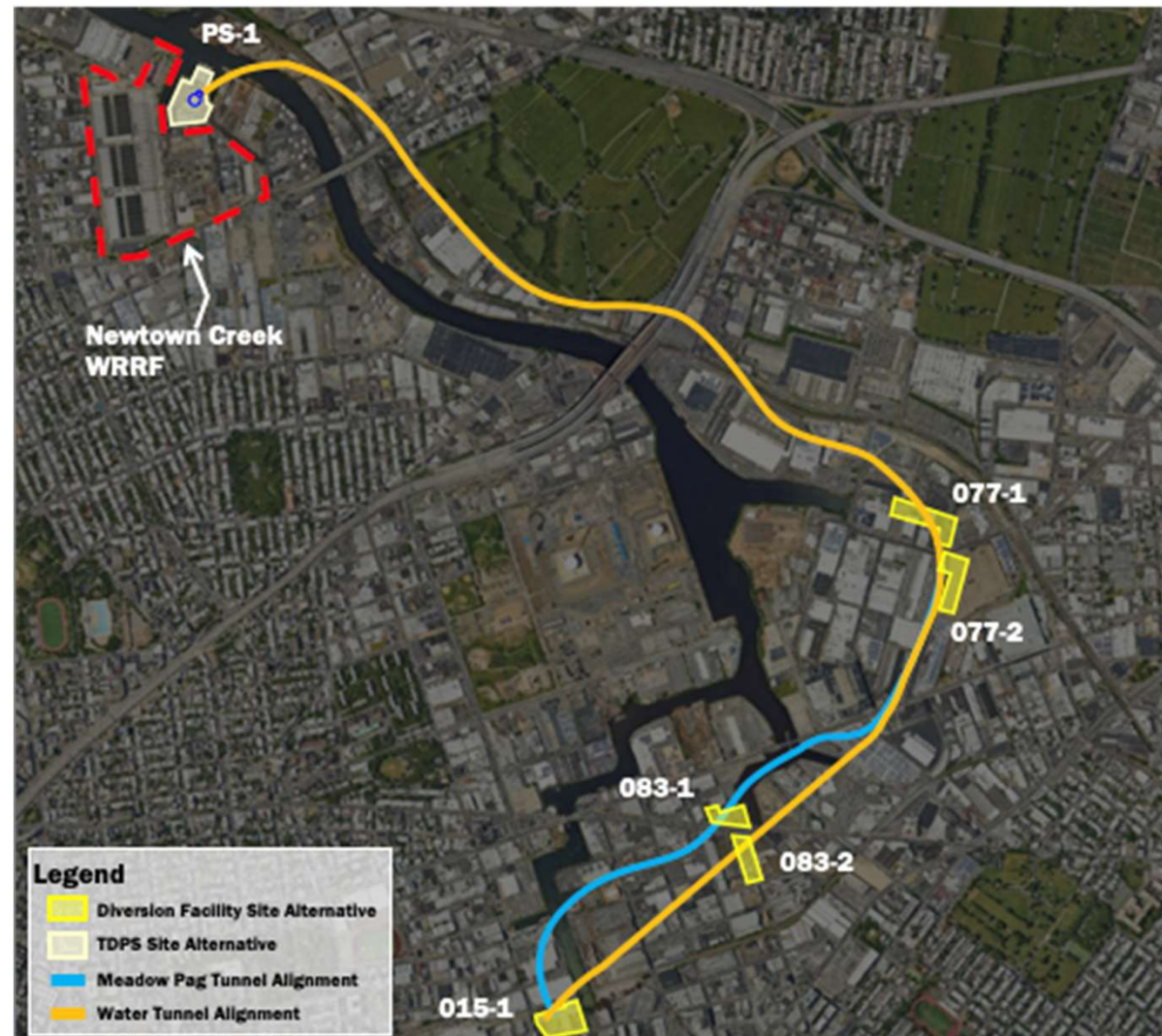
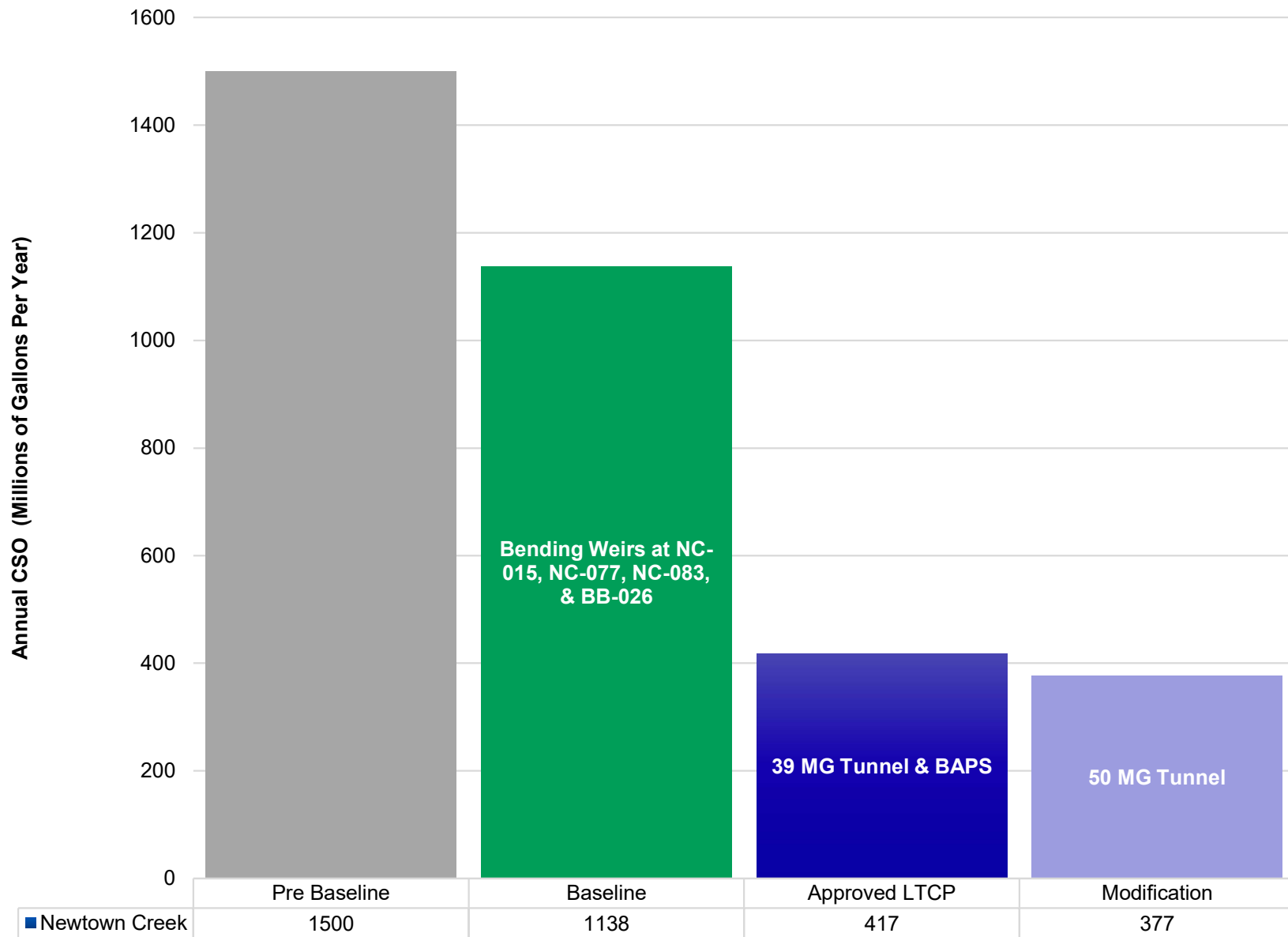
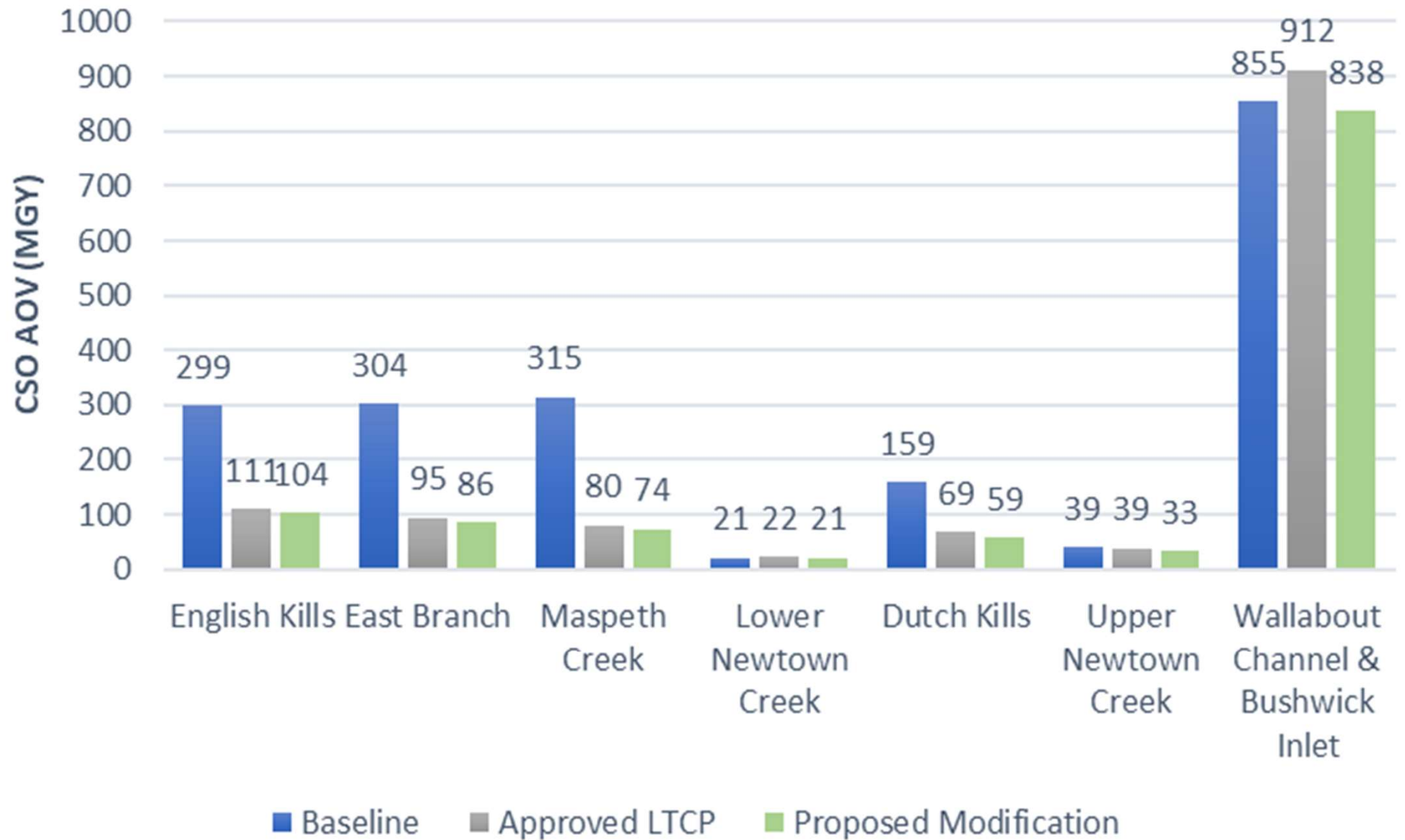


Image: Proposed tunnel alignments and shaft locations.

Newtown Creek Annual CSO Discharges

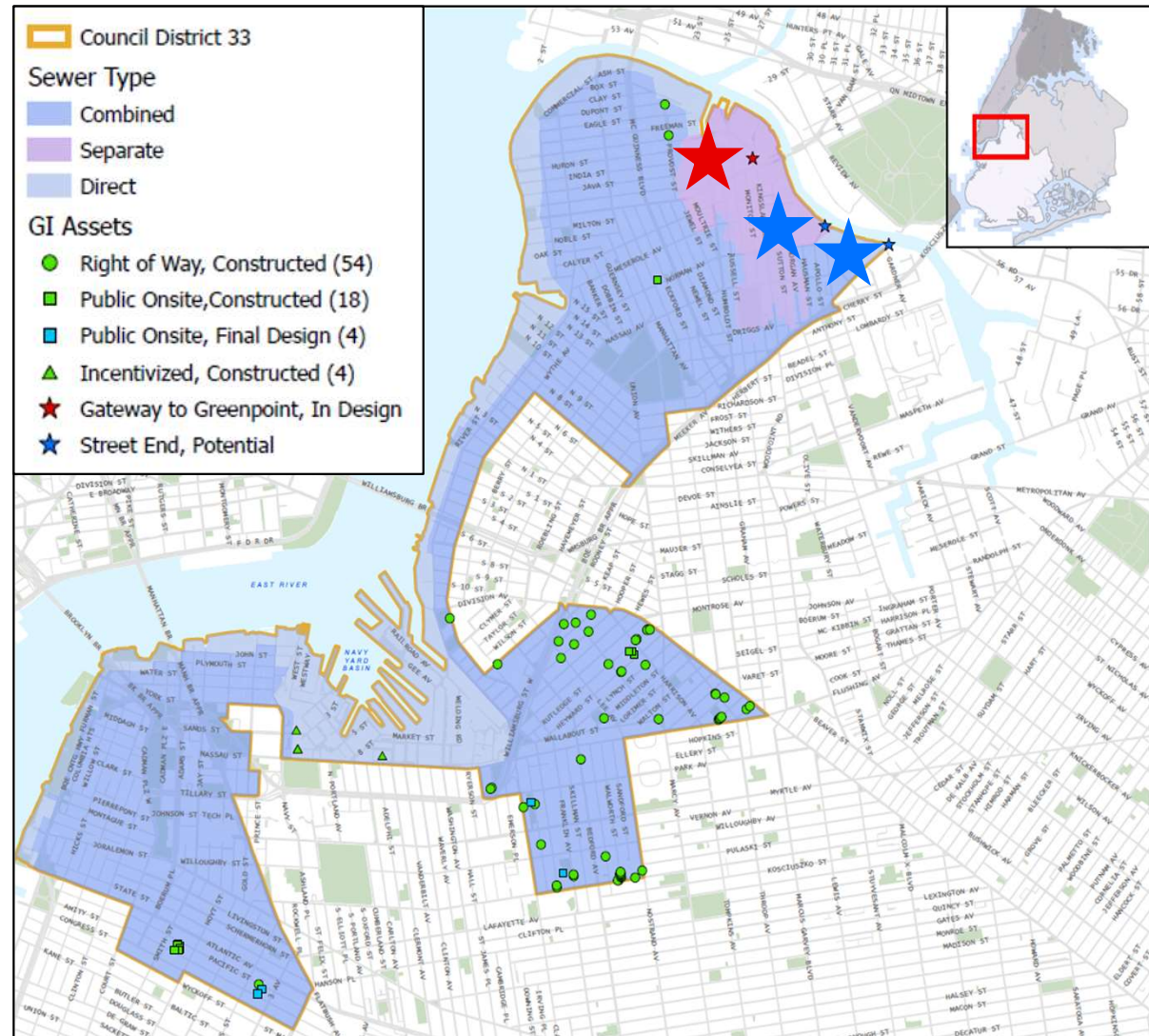


Projected CSO Discharges



Green Infrastructure Program

- Green infrastructure (GI) helps absorb and filter stormwater, while greening neighborhoods and reducing urban heat island effect
- Typical GI projects include curbside rain gardens, stormwater retention basins, and/or porous pavement
- These projects can also reduce street flooding and, by capturing stormwater before it enters the sewer system, can help reduce CSO
- DEP has committed to spending \$3.5B on GI practices citywide and reducing CSO discharges by 1.67 billion gallons per year
- Citywide, we have already constructed 12,000+ GI assets, and are looking at rain gardens, large parks projects and other opportunities in D33 and along NC, the East River, and citywide.



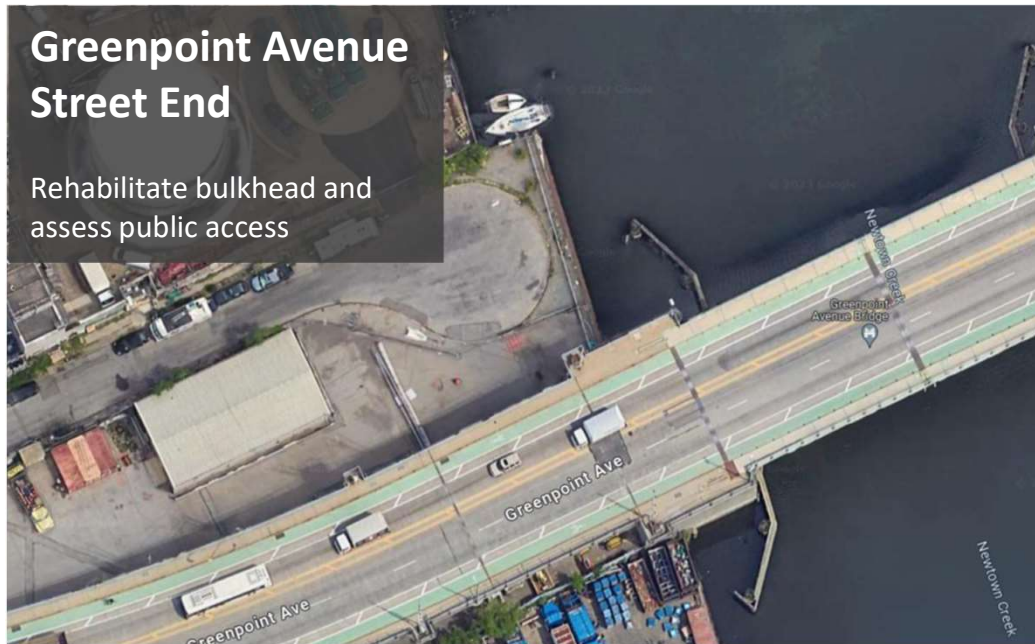
- Will capture 1 million gallons of stormwater per year
- Includes underground storage chambers and curbside inlets on Greenpoint and Kingsland avenues
- Provides nearly half an acre of public open space
- \$1.5 million total cost fully funded (DEP + City Council funding)
- Anticipated construction start FY 2025



Potential Street End & Ecological Projects

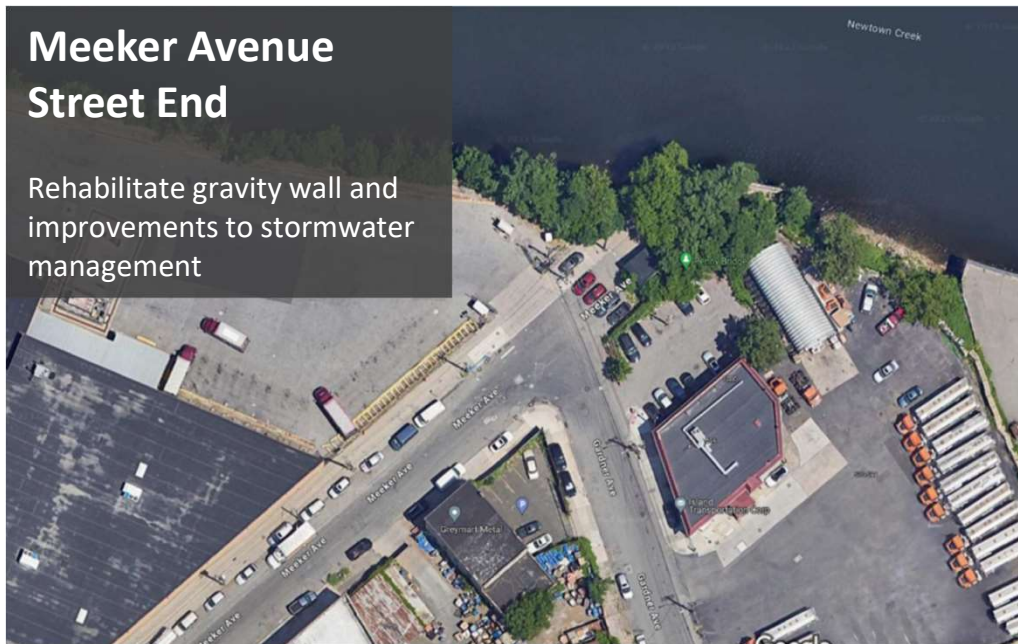
Greenpoint Avenue Street End

Rehabilitate bulkhead and
assess public access



Meeker Avenue Street End

Rehabilitate gravity wall and
improvements to stormwater
management



Potential Ecological Improvements

- North Henry Street Wetlands
- Dutch Kills Barge Removal and Wetlands
- Other Wetland Opportunities



Summary of Proposed Modification

- Water Quality Benefits
 - ✓ Overall reduction in CSO Volume and Activations
 - ✓ Higher WQ Attainment in Newtown Creek, particularly Dutch Kills
 - ✓ Results in about a 100 MGY reduction in CSOs diverted to East River as compared with the Approved LTCP
- Constructability & Operational Benefits
 - ✓ Will eliminate need for major construction along Greenpoint Ave
 - ✓ Projected to have lower operational costs and eliminates some operational concerns with pump station expansion
- Continue pursuing green infrastructure and ecological restoration projects
- Submit modification request with technical memo to DEC

