

North Hudson Sewerage Authority Long Term Control Plan



Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP)

Mandated by NJDEP and USEPA

- Submission of preliminary planning to NJDEP by June 1, 2020

Goal

- To dramatically reduce the discharges of combined sewer overflows into the nation's waterbodies

Long-term

- Implementation over a 25 to 30 year time frame

Cost

- NHSA sees a 25 -30 year path to completion without raising the rate beyond annual 2% cap

LTCP GOAL IS TO REDUCE CSO DISCHARGES. IT IS NOT A FLOOD MITIGATION PROGRAM.


NJDEP CSO Control Mandate

Long Term Control Plan (LTCP) Requires NHSA:

1. **TO UNDERTAKE A MAJOR STUDY OF THE COLLECTION SYSTEM, TREATMENT WORKS AND DISCHARGES INTO WATER BODIES (“SYSTEM CHARACTERIZATION”)**
 - This includes hydraulic analysis and condition assessment of wastewater collection systems, pumping stations, regulators and sewage treatment facilities
 - The purpose is to provide the basis for the development of a long-term plan to regulate CSO discharges
 - **THIS STUDY HAS BEEN SUCCESSFULLY COMPLETED BY NHSA**
2. **TO UNDERTAKE A MAJOR STUDY OF THE POSSIBLE ALTERNATIVES TO REDUCE CSOs (“ALTERNATIVES EVALUATION”)**
 - Identify and evaluate possible opportunities to reduce CSOs
 - Estimate costs for possible opportunities
 - **THIS STUDY HAS BEEN SUCCESSFULLY COMPLETED BY NHSA**
3. **TO DEVELOP A LTCP TO BE SUBMITTED TO THE NJDEP BY JUNE 1, 2020**
 - Determine what system improvement projects will be needed over the next 25 to 30 years to reduce the frequency, volume and impacts of CSOs.
 - **THIS INITIAL PLAN IS DISCUSSED IN THIS PRESENTATION. THE FINAL DRAFT WILL BE SUBMITTED TO NJDEP ON TIME**

NJDEP CSO Control Mandate

Permit Compliance can be achieved in 1 of 2 ways:

1. **CAPTURE A MINIMUM OF 85% OF WET WEATHER VOLUME ANNUALLY**  **Selected Method**
 - Based on the comprehensive study of its system, NHSA will opt for this method of meeting NJDEP requirements

or

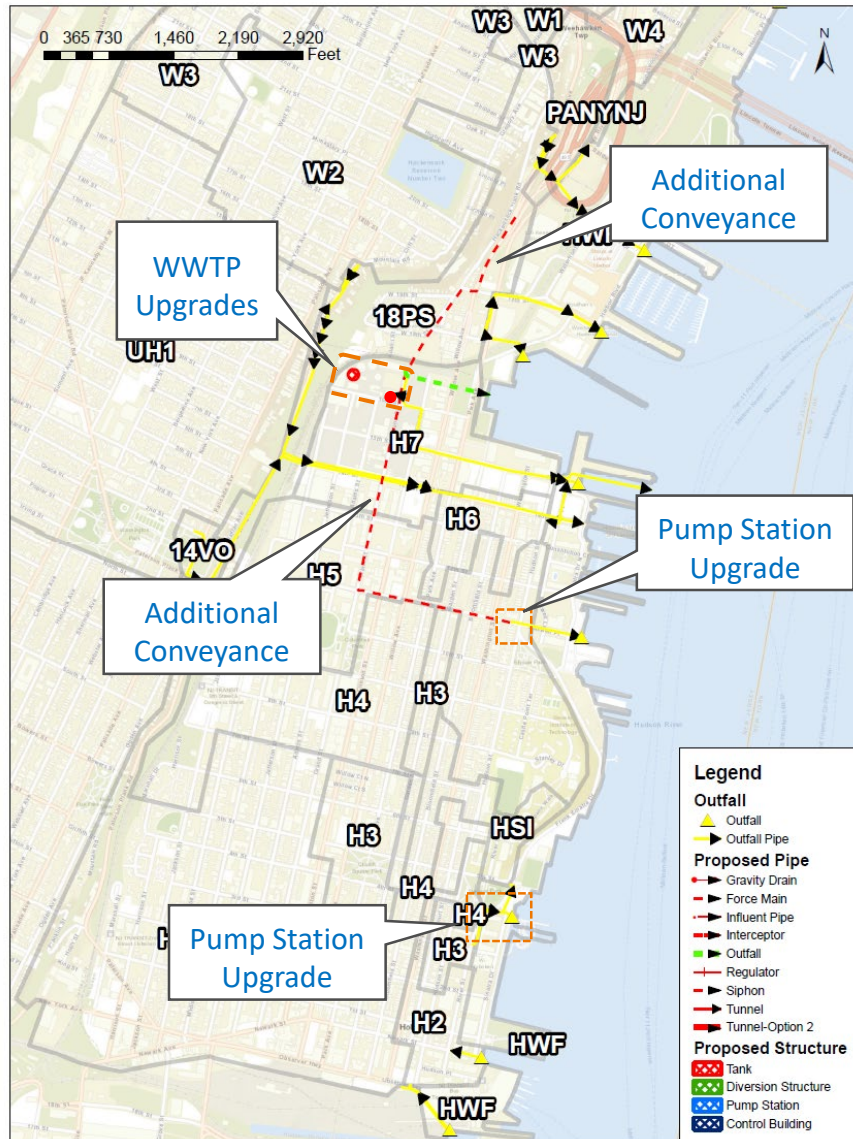
2. **REDUCE ANNUAL OVERFLOWS TO 4 PER YEAR SYSTEM-WIDE**
 - Given the size of the NHSA system, number of outfalls in three cities, and technical requirements, this option is not feasible

NHSA IS REQUIRED BY THE NJDEP TO REVIEW EACH OPTION

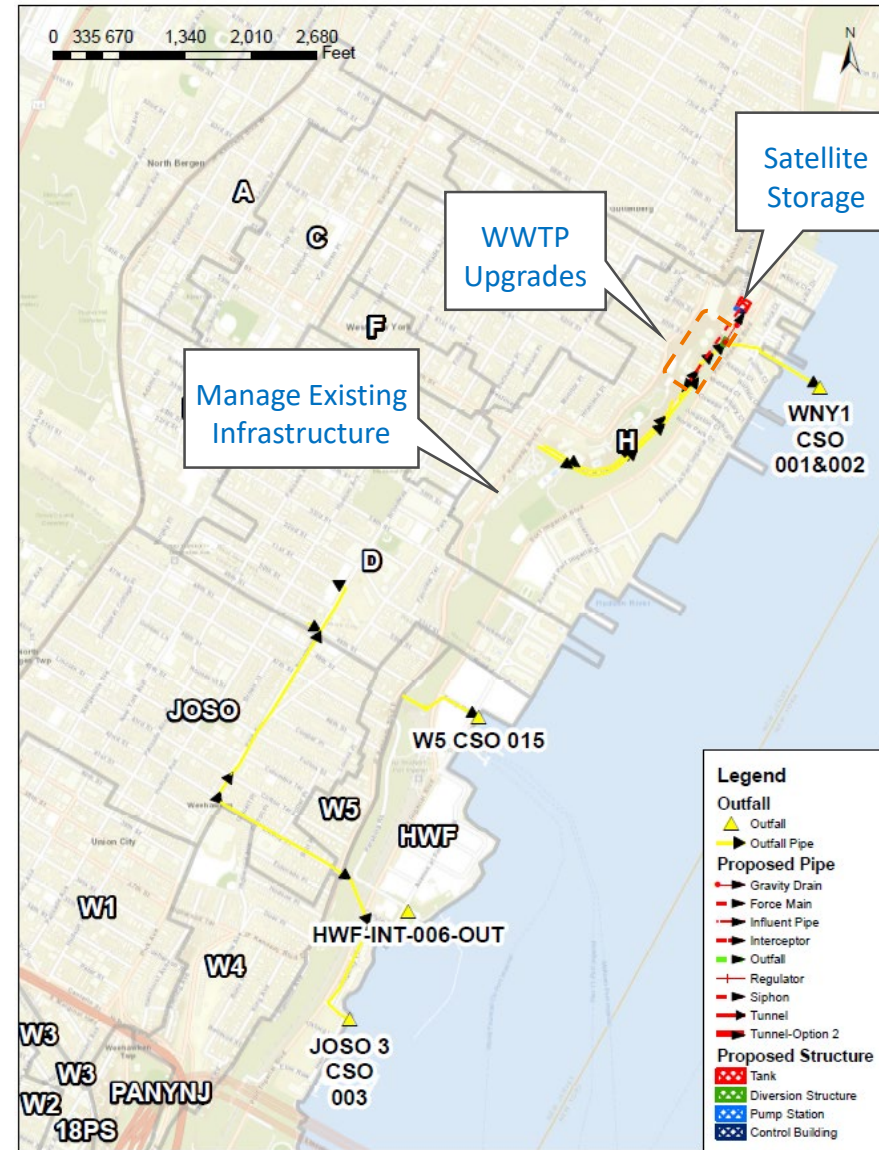
Selected 85% Capture Option

LTCP Selected Solutions

Adams Street WWTP: 87% Capture



River Road WWTP: 92% Capture



NHSA LTCP Projects, Construction Cost & Construction Timeline

Collection System and WWTP Controls	Capital Cost	Year
Integration of 1 MG, Resiliency Park storage tank into NHSA conveyance system-Phase 1, Pump Station Construction	\$17,300,000	2020
Land Purchase for WNY1 Storage Tank	\$4,000,000	2021
Integration of 1 MG Resiliency Park storage tank into NHSA conveyance system-Phase 2, Electrical and Mechanical Work on Pump Station	\$4,000,000	2024
Increase Capacity at River Road WWTP to 35 MGD with High Level Treatment	\$13,000,000	2025
Integration of 1 MG Resiliency Park storage tank into NHSA conveyance system -Phase 3, Installation of High Level Storm Sewer System	\$16,000,000	2026
Construct New Adams Street WWTP Outfall	\$5,000,000	2027
Raise JOSO Weirs by 1 foot	\$2,000,000	2029
Increase Capacity at Adams Street WWTP by 20 MGD through Side Stream Treatment	\$13,000,000	2030
Parallel 48" Park Ave Siphon	\$28,000,000	2033
Increase Capacity of 5 th Street Pump Station from 15 mgd to 47 mgd AND Construct Parallel 11 th Street Siphon to divert partial volume from H1 and all volume from H3/H4/HSI	\$30,000,000	2036
Increase Capacity 11th Street Pump Station from 11.6 mgd to 25 mgd	\$13,000,000	2039
Adams Street WWTP 2 MG Storage Tank	\$17,000,000	2042
River Road WWTP 8 MG Storage Tank	\$77,000,000	2045
Adams Street WWTP 8 MG Storage Tank	\$68,000,000	2048
TOTAL	\$307,300,000	

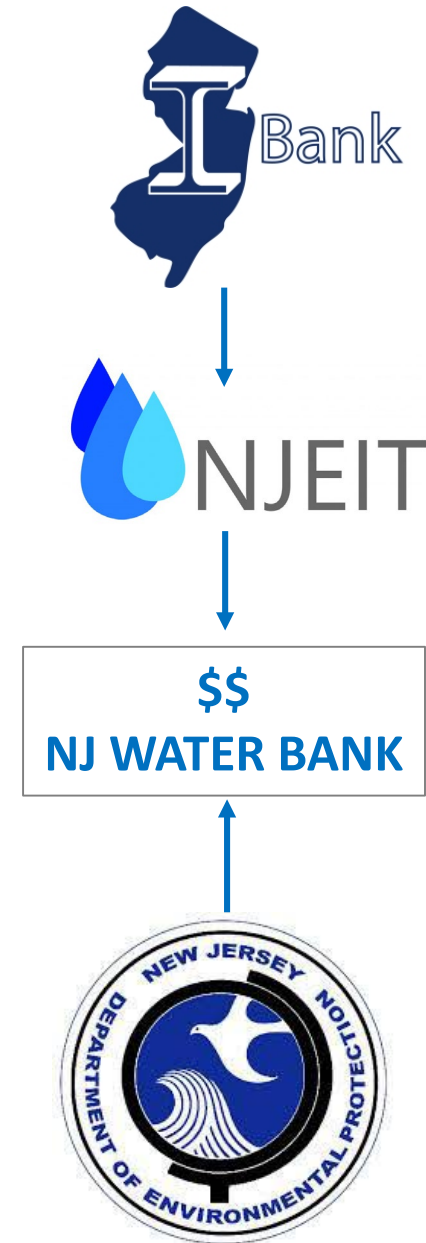
Financing the CSO LTCP

- To finance the LTCP, the Authority will self fund and apply for funding from the New Jersey Infrastructure Bank (NJ I-Bank)
- Key Assumptions
 - Operating expenses currently increase at a rate of 2% per year in conformity with the required annual 2% cap
 - Connection fees will remain steady at \$3.1 million per year (less than recent receipts)
 - Water consumption declines at 1% per year for the next 5 years, then declines at 0.5% per year thereafter
 - The 2% per year increase in revenue from sewer usage based consumption charge continues for approximately the next 10 years (2030) and beyond this the sewer rate will increase between 3-3.5% per year

Financing the CSO LTCP

NJ Infrastructure Bank Loans

- NJ I-Bank is an independent State Financing Authority responsible for providing and administering low interest rate loans to qualified municipalities, counties, regional authorities, and water purveyors in New Jersey.
- NJ I-Bank and NJDEP are working together to help improve water quality, public health and make possible responsible and sustainable economic development, one project at a time.
- The Water Bank has dedicated \$25 million to Principal Forgiveness Loans for Combined Sewer Overflow Abatement projects utilizing gray and green practices.



Financing the CSO LTCP

Financing Strategy

- Between now and 2044, NHSA would use some NJIB loans up to \$25 million plus some capital cash to fund a limited number of LTCP projects
- Excluding NJ Infrastructure Bank loans, current NHSA debt is paid in full in 2044
- Implementing a limited number of LTCP projects over that period can enable the Authority to live within the 2% per year net increase in revenue for the next 10 years, then up to 3.5% per year for the remainder of the program
- After 2044 and through 2048, NHSA would borrow additional funds and use capital cash to complete the LTCP
- Between now and 2048, NHSA will continue to replace/reline sewers and make other improvements as needed, at a modest pace

Summary

- Over the next 25-30 years, the Authority will implement a long term plan with the goal of reducing combined sewer overflows by collecting and treating at least 85% of combined sewage that is produced in the system annually for a construction cost of approximately \$307M
- The program will be funded through a combination of funding from the New Jersey I-Bank and self funded with rate revenues from consumption charges, which will increase at the annual cap of 2% for the next 10 years, then up to 3.5% through the completion of the program

Summary

- The Authority's commitment to environmental stewardship and addressing the needs of the community will remain a top priority through the implementation of this program
- It is our goal to continue this dialogue throughout the program so that we may together reach the goal of a cleaner, more sustainable future



Questions?