

### PUBLIC OUTREACH AND PARTICIPATION

As with all large infrastructure-related projects, public outreach and participation is an important aspect of the LTCP.

As part of the public outreach efforts, the Clean Waterways, Healthy Neighborhoods permittees have established a Supplemental CSO Team, consisting of interested and impacted members of the public. The Supplemental CSO Team consists of environmental groups, economic and business organizations, recreational water users, and members of academia, among others. The Supplemental CSO Team meets quarterly to receive program updates and to provide feedback, and will act as liaisons between the permittees and the public.





An important part of the public outreach campaign is informing the public where and when CSOs occur. Public notification signs have already been placed at all CSO outfall locations. Additional information is being placed at points of public access, including boat launches and marinas.



The Clean Waterways Healthy
Neighborhoods members helped to
develop a CSO public notification
system, which predicts overflow
occurrences based upon radar
rainfall data.

Please visit the notification system at: njcso.hdrgateway.com

## LEARN MORE ABOUT PVSC



Visit the Passaic Valley Sewerage Commission website at <a href="https://www.nj.gov/pvsc">www.nj.gov/pvsc</a>



Long Term Control Plan for Combined Sewer Overflows

## **PROJECT OVERVIEW**

There are two principle types of sewer systems in the US: combined sewer systems (CSS) and separate sewer systems (SSS).



In a CSS, stormwater runoff, domestic sewage, and industrial wastewater are collected and combined in a single pipe network. During dry weather conditions, that combined flow is conveyed to the treatment facility for treatment prior to discharge to a water body.

During wet weather, because of the addition of stormwater, the combined flow can exceed the capacity of the conveyance system or wastewater treatment facilities. When this occurs,

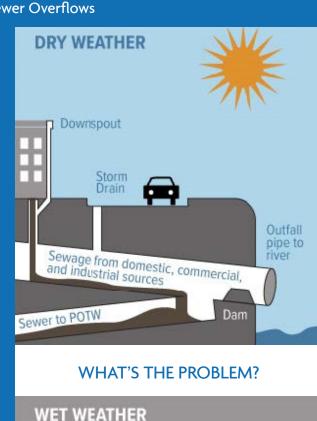


these systems are designed to discharge the combined storm and wastewater to local waterways through a combined sewer overflow (CSO) outfall.

During a CSO event, stormwater and partially treated or untreated domestic and industrial wastewater are discharged directly into the receiving stream. These CSOs contain microbial pathogens.

The Clean Waterways, Healthy Neighborhoods program represents the 9 CSS systems within the Passaic Valley Sewerage Commission (PVSC) and the North Bergen Municipal Utilities Authority (NBMUA) service areas. These systems have a total of 114 CSO discharge locations and service a population of close to 1.5 million residents along with thousands of businesses.

Together, we are evaluating ways to reduce the amount of CSO discharges to improve our waterways.



Downspout

Sewer to POTW

Storm

Drain

Combined sewage and stormwater

pipe to



## **CSO PERMITS**

The New Jersey Department of Environmental Protection (NJDEP) regulates CSOs through the New Jersey Pollutant Discharge Elimination System (NJPDES) permitting program. As of July 1, 2015, individual NJPDES permits went into effect for the entities that own CSO discharges or provide conveyance and treatment of combined sewer flow.

The NJPDES permit requirements include public education, evaluation of CSO control alternatives, continued proper system operation and maintenance, and the submission of a Long Term Control Plan (LTCP) for CSO control.

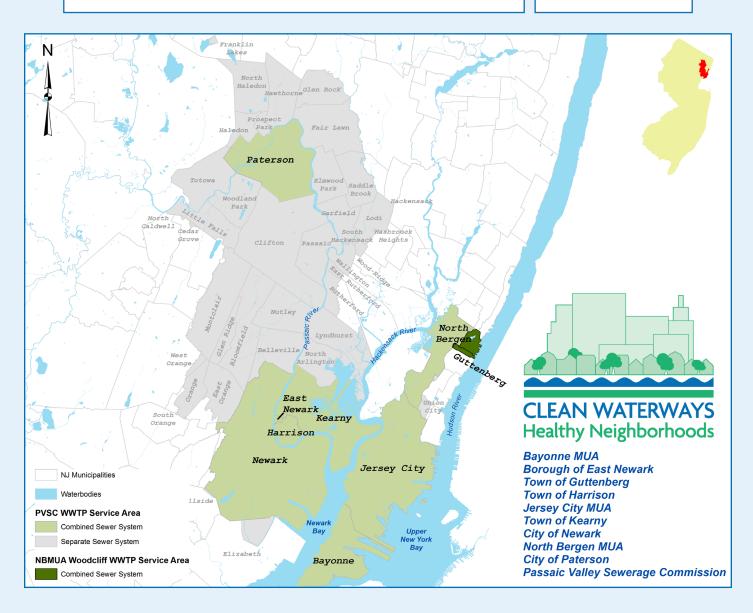
## **COMBINED SEWER MUNICIPALITIES**

#### **PVSC Service Area**

Bayonne Harrison East Newark Jersey City Kearny North Bergen Newark Paterson

#### **NBMUA Service Area**

Guttenberg North Bergen



## LONG TERM CONTROL PLAN

The Long Term Control Plan (LTCP) is an evaluation of CSO control alternatives that treat, reduce or eliminate CSO discharges. The purpose of the LTCP is to identify a cost-effective solution that will meet the requirements of the Clean Water Act (CWA). A wide range of technologies and alternatives will be evaluated with considerations given to: regulatory compliance; cost effectiveness; ability to relieve flooding; non-monetary factors such as implementability and operations considerations; and public acceptance.

Under the prior General CSO
Permit, the permittees performed
feasibility studies that evaluated the
cost and performance of various
CSO control alternatives. The LTCP
will build upon those studies and
ultimately identify a system-wide
plan, including an implementation
schedule.

To support the LTCP development, the permittees are actively collecting water quality data and developing collection system and receiving water models.



#### **Elements of the Long Term Control Plan**

- ✓ Monitoring and Modeling
- ✓ Public Participation
- Consideration of Sensitive Areas
- ☑ Evaluation of Alternatives
- ✓ Cost/Performance Considerations
- Operational Plan
- ✓ Maximizing Treatment at the Existing Sewage Treatment Plant
- ✓ Implementation Schedule



# WHAT CAN BE DONE TO REDUCE CSOs?

There are a number of ways to reduce CSOs and their impacts. Some examples include:

- Optimizing operations for delivering flow to wastewater treatment plants
- Upgrading treatment facilities to allow for more wet weather flow treatment, which may require additional conveyance capacity
- Providing storage for excess volume until conveyance and plant capacity recovers, such as through tanks and tunnels
- Providing satellite treatment facilities
- Reducing flows to collection systems through separate sewers or source controls and green infrastructure



Green infrastructure is a costeffective, resilient approach to managing wet weather impacts that provides many community benefits.