



SEWAGE FREE STREETS AND RIVERS

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Newark's Sewer System: What's at Stake

What's Happening:

Newark is considering different options for improving its outdated sewer system. Decisions that can affect your neighborhood will be made between now and June 1, 2020. Get the facts by attending local meetings on solutions to reduce stormwater runoff and sewer overflows. Then contact your elected officials with your preferences. Sign up for the Sewage-Free Streets and Rivers campaign for updates on local meetings and other ways to get involved.

Cities like Newark were required by the New Jersey Department of Environmental Protection to evaluate options for reducing CSOs by July 2019. Newark's evaluation of potential strategies has been published online as a draft "Development and Evaluation of Alternatives Report." After further review, Newark will select and commit to a combination of some of the proposed strategies by June 1, 2020, the deadline for the city's official CSO Long Term Control Plan.

Each option will cost millions of dollars and will impact neighborhoods for decades.

CSO permittees are required to review all of these options to reduce CSOs:

- **Green infrastructure** - Nature-based solutions that capture rain where it falls, before it enters and overwhelms the combined sewer system. Examples include street trees, rain gardens, and bioswales.
- **Storage capacity within the existing system** - Using existing pipes to store stormwater.
- **Additional storage capacity in the city and/or at the treatment plant** - New storage tanks within the city or at the wastewater treatment plant.
- **Reduction of inflow and infiltration** - Fixing pipes so water does not come in or seep out through cracks.
- **Sewer separation** - Adding a pipe for stormwater to divert rain from the combined sewer system, reducing how often it overflows.
- **Treatment of CSO discharge** - Constructing a mini wastewater treatment plant at the end of the pipe.
- **CSO-related bypass of the secondary treatment portion of the sewage treatment plant** - Creating more capacity at the sewage treatment plant by bypassing the secondary treatment process of cleaning the mixture of sewage and stormwater.

Summary of Newark's "Development and Evaluation of Alternatives Report"

Ownership and Management of CSO System Serving Newark

- The City of Newark owns the sewage collection system.
- The Passaic Valley Sewerage Commission treats the sewage. Newark's report is nested within a larger document that contains PVSC's regional evaluation of alternatives report, which also has implications for the city.
- Number of combined sewer overflow pipes that discharge into the Passaic River: **18**
- Average annual number of systemwide combined sewer overflow events: **61**





Newark selected these priority alternatives for reducing combined sewer overflows based on projected cost and the estimated reduction of overflows by volume or the number of overflows per year:

Options Considered

Projected Costs and CSO Reductions

Green infrastructure (rain gardens)	<ul style="list-style-type: none">• Spending \$157 million would manage 10% control of impervious surface with green infrastructure.• Spending \$78 million would manage 5% control of impervious surface with green infrastructure.
Additional storage capacity	<ul style="list-style-type: none">• Spending \$323 million would reduce the number of overflows from 61 to 20 CSO events per year.• Spending \$530 million would reduce the number of overflows from 61 to 4 CSO events per year.
Infiltration and inflow reduction	<ul style="list-style-type: none">• Spending a minimum of \$63 million dollars would help reduce the severity of overflows, however it will not affect the number of CSO events.
Sewer separation	<ul style="list-style-type: none">• Spending \$1.3 billion would eliminate overflows and CSO events.
A combination of: <ul style="list-style-type: none">• Storage capacity within existing system (gate delay)• Treatment of CSO discharge• Green infrastructure	<ul style="list-style-type: none">• Spending \$146 million would reach the goal of 85% capture of CSO discharge.
A combination of: <ul style="list-style-type: none">• Additional storage capacity• Treatment of CSO discharge	<ul style="list-style-type: none">• Spending \$759 million would reduce the number of overflows from 61 to 20 CSO events a year.• Spending \$1.8 billion would reduce the number of overflows from 61 to 4 CSO events a year.

Community benefits Newark identified for green infrastructure:

Reduced surface flooding, reduced basement sewage flooding, improved air quality, reduced carbon emissions, reduced heat island effect, property value uplift, local jobs, passive and active recreational improvements, community aesthetic improvements, reduced crime, alignment with goals for a sustainable community, increased pedestrian safety through curb retrofits.

Community input gathered:

The report notes that regional and local public meetings were held in conjunction with Passaic Valley Sewerage Commission, the City of Newark, and community groups. The report does not include the community input gathered at these meetings.

For more information:

- Download the full report at <https://www.nj.gov/dep/dwq/cso.htm>
- To see a map of Newark's outfalls go to: bit.ly/2kpvpAg
- Newark CSO contact: Kareem Adeem, Acting Director, Water & Sewer Utilities, 973-733-5361
- PVSC website on CSO Plan: <https://www.njcleanwaterways.com>
- Visit SewageFreeNJ.org to sign up for our newsletter.

Sewage-Free Streets and Rivers is organized by its partners and an advisory board, with the support of New Jersey Future.

