



SEWAGE FREE STREETS AND RIVERS

Your Waterways, Your Neighborhood, Your Money, Your Voice



Elizabeth's Sewer System: What's at Stake

What's Happening:

Elizabeth is considering different options for improving its outdated sewer system.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 Elizabeth were required by the New Jersey Department of Environmental Protection to evaluate options for reducing CSOs by July 2019. Elizabeth's evaluation of potential strategies has been published online as a draft "Development and Evaluation of Alternatives Report." After further review, Elizabeth 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 Elizabeth's "Development and Evaluation of Alternatives Report"

Ownership and Management of CSO System Serving Elizabeth

- The City of Elizabeth owns the collection system.
- The Joint Meeting of Essex and Union Counties (JMEUC) treats the sewage from the City of Elizabeth and the systems are hydraulically connected.
- Number of combined sewer overflow pipes that discharge into the Elizabeth River, Arthur Kill, and Newark Bay: **29**
- Average annual number of systemwide combined sewer overflow events: **54**





Elizabeth 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

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| Green infrastructure | <ul style="list-style-type: none">• Spending \$104 million would manage 2.5% impervious surface with green infrastructure and reduce the amount of sewage overflows by 16.2 million gallons per year.• Spending \$618 million would manage 15% impervious surface with green infrastructure and reduce the amount of sewage overflows by 36 million gallons per year. |
| Additional storage capacity
(satellite storage) | <ul style="list-style-type: none">• Spending \$332 million would reduce the number of overflows a year from an average of 54 overflows to 20.• Spending \$1.3 billion would reduce the number of overflows a year to 0. |
| Additional storage capacity
(deep tunnel storage) | <ul style="list-style-type: none">• Spending \$489 million would reduce the number of overflows from 54 a year to 20.• Spending \$962 million would reduce the number of overflows a year to 0. |
| Treatment of CSO discharge | <ul style="list-style-type: none">• Spending \$558 million would reduce the number of overflows from 54 a year to 20.• Spending \$963 million would reduce the number of overflows to 0. |
| Sewer separation | <ul style="list-style-type: none">• Spending \$1.4 billion would reduce the number of overflows to 0. |
| Inflow and infiltration | <ul style="list-style-type: none">• Spending \$594 million would not reach the goal of 85% capture of CSO volume but would contribute to reducing overflows. |

Community benefits Elizabeth 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 included a summary of the four public meetings held in fall of 2018 and spring of 2019, including the number of participants, questions that were asked and the subjects covered at the meetings.

For more information:

- Download the full report at: <https://www.nj.gov/dep/dwq/cso.htm>
- To see a map of Elizabeth's outfalls, go to: bit.ly/2kpvpAg
- Elizabeth CSO contact: Daniel Loomis, City Engineer; 908-820-4000; dloomis@elizabethnj.org
- PVSC website on CSO Plan: <https://www.njcleanwaterways.com/>
- Visit SewageFreeNJ.org to sign up for our newsletter

