**Dry Weather**

A wastewater treatment area is the area serviced by a wastewater treatment plant. The map below shows “dry weather” conditions for the Red Hook and Owls Head Wastewater Treatment Plants, and their corresponding treatment areas. Sewage flows via gravity to a force main or interceptor, where it will be conveyed to the wastewater treatment plant, occasionally with the help of a pump station to move flow uphill.

**Wastewater Treatment Areas**

- Wastewater Treatment Plants
- Wastewater Treatment Areas
- Interceptor Lines
- Force Main
- Pump Station
- Gowanus Canal
- Other Waterways

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**Wet Weather**

The same pipes that collect and transport wastewater also collect and transport stormwater to the treatment plant. In many storms, there is more combined wastewater and stormwater than the system can handle, and the system discharges raw sewage and stormwater runoff into adjacent waterbodies. The “wet-weather” map below shows each CSO outfall and its drainage area, or CSO-shed, for the Gowanus Canal. Each drainage area is colored to match the corresponding CSO outfall.

**Combined Sewer Overflow (CSO)**

The Gowanus Canal receives about 363 million gallons of CSO discharge per year via eleven different CSO outfalls. Overflow events happen as often as 59 times a year, after as little as 0.37 inches of rain.
GETTING TO ZERO CSO

Planned grey and green infrastructure projects will reduce the amount of combined sewage overflow into the Gowanus Canal. After these projects are complete, there will still be about 115 million gallons of annual discharge unmanaged. The chart below displays the volume of stormwater that is or will be mitigated by grey infrastructure, green infrastructure, and what remains to get to ZERO CSOs during a 1.2 inch rain storm.

HIGH LEVEL STORM SEWERS
Separate stormwater pipes are being installed to divert rain water falling on streets directly to the Canal. This will reduce load to the combined sewer and alleviate some street flooding.

SEWAGE TANKS
Two large holding tanks will be built in the two CSO-sheds with the largest overflows. Combined, the tanks will keep 12 million gallons of sewage and rain water from discharging into the Canal during storms.

GREEN INFRASTRUCTURE
Curbside rain gardens (or bioswales) can soak up about 2,500 gallons of rainwater that flows down the street. The City has installed 103 rain gardens in the Gowanus Watershed that manage about 257,500 gallons of rainwater per storm.

INTEGRATED WATER MANAGEMENT
As the rezoning will increase wastewater generation, it must include further infrastructure investment to manage more stormwater and wastewater. An integrated approach that includes in-building storage and reuse as well as site appropriate green infrastructure in parks, streets and the waterfront can ensure a net zero increase in annual CSO.

REZONING
In 2019, the Department of City Planning (DCP) released a Draft Scope of Work for a Proposed Rezoning of the Gowanus neighborhood. The City projects the rezoning could bring 20,000 new residents and increase wastewater generation by 1 billion gallons per year – on top of the 115 million gallons of annual CSO that will remain unmanaged.