## **Environmental Remediation** How did we get here?

A legacy of pollution led to the Superfund designation of the Canal and the need for substantial remediation of several sites throughout the neighborhood.

From the mid-nineteenth to the mid-twentieth century, Gowanus was a center of heavy industry, including coal gasification (manufactured gas) plants, oil refineries, chemical plants, cement works, machine shops and tanneries. Underground chemical storage and runoff from these sites spread toxins throughout the area, and coal tar and other contaminants continue to leach into soil and migrate due to container leaks, improper disposal, the natural topography and high water table of the former wetlands and creeks that were filled in to form today's neighborhood.

The US EPA placed the Canal on its National Priorities (Superfund) List in 2010 and has coordinated the parties that were responsible for the Canal's contamination in establishing extensive plans to clean it up.



Citizens MGP, Gowanus, 1924



Current site of Public Place

There were three manufactured gas plants (MGPs) located along the Gowanus Canal, which are believed to be sources of much of the polycyclic aromatic hydrocarbon (PAH) contamination in the Canal. At the MGPs, coal was converted to gas, which was used for lighting, heating and cooking. These sites exhibit the characteristics and contaminants expected of former MGP sites, including the presence of coal tar and dense non-aqueous phase liquid (DNAPL). National Grid is responsible for remediation of the MGP Sites under the oversight of NYSDEC.



Fulton Municipal Gas Works MGP, Gowanus, 1924

The City is aligned with and committed to ongoing coordination around the overall clean-up of the Canal and surrounding area. New York State's Department of Environmental Conservation (NYSDEC) and NYC Office of Environmental Remediation (OER) have both developed remedial programs and incentives programs to facilitate the investigation and remediation of brownfield sites.

The goals and strategies in the framework aim to summarize and coordinate among existing cleanup efforts and bring additional tools to promote the cleanup of upland brownfield sites.

# **Environmental Remediation Framework Goals and Strategies**

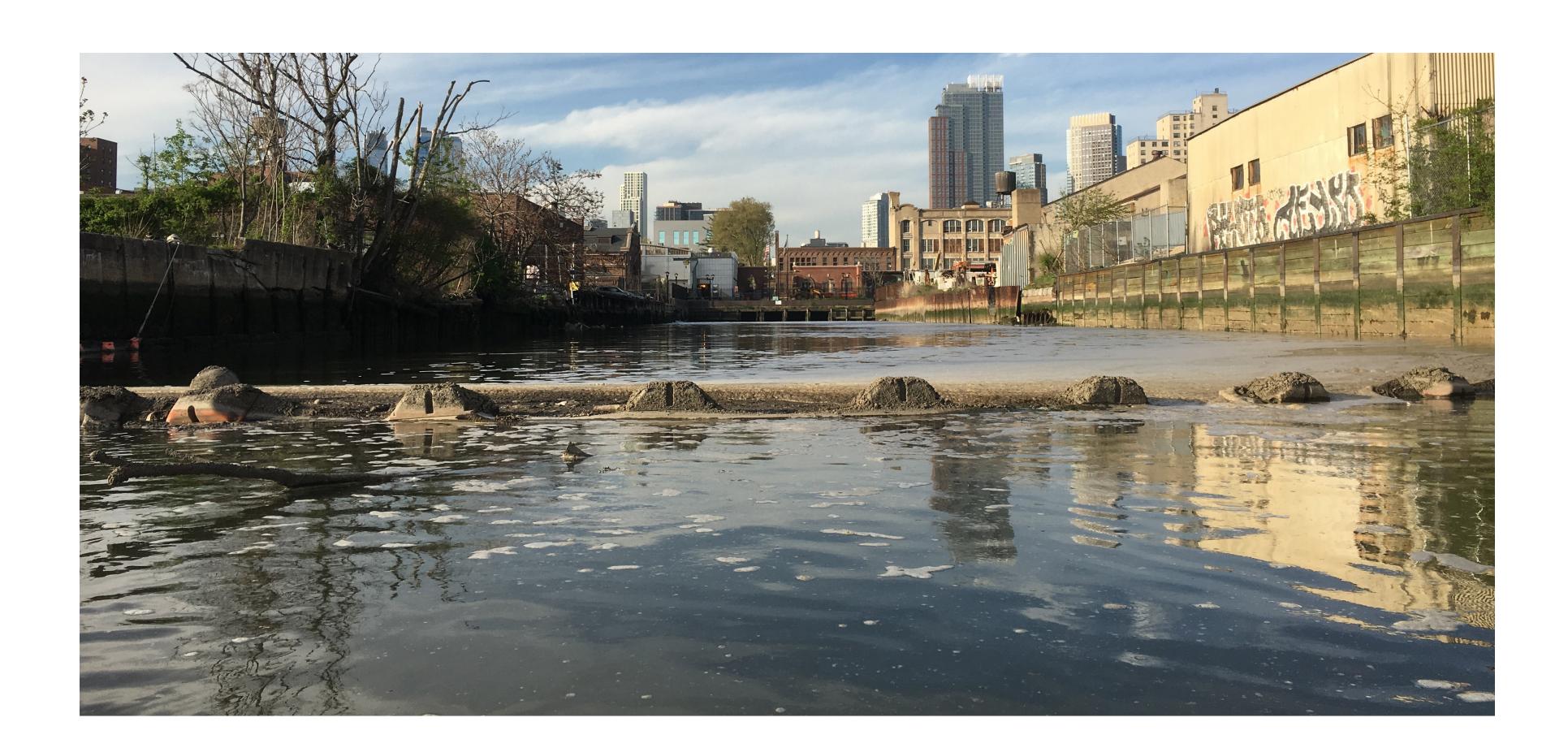
Goal: Support continuing clean-up of the Gowanus Canal and properties across the neighborhood

#### Canal Remediation

- Support and assist the EPA in its coordination of dredging and restoration of the Gowanus Canal under the Superfund program
- Reduce combined sewer overflow (CSO) pollution entering the Canal

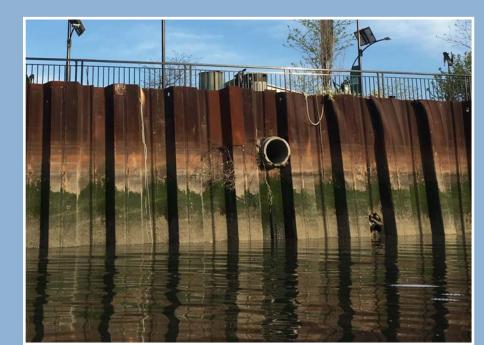
### Cleanup and Reuse of Contaminated Sites

- Leverage redevelopment to provide brownfield remediation
- Facilitate and incentivize voluntary cleanup of private properties
- Help community organizations participate in redevelopment planning



DEP has worked with EPA on behalf of the City to plan construction of underground CSO facilities to intercept, screen and store combined sanitary waste and stormwater runoff in order to pump it back to the wastewater treatment plant for treatment. The facilities will be constructed at the head end of the Canal (Nevins Street and Butler Street) and mid-canal (2nd Avenue and 5th Street). The CSO facilities will, together with other recent City infrastructure investments including modernization of the Flushing Tunnel and reconstruciton of the Gowanus pump station, significantly improve the health of the Canal.





Discharge points on the Canal







## Help us take it to the next step!

Your participation and input will help in the development of the Gowanus Neighborhood Plan

• /· • V	estions to help you get started: e you part of an organization or do you know any partners that could help advance some of these strategies? hat ideas do you have that can help advance a particular goal or strategy? hich strategy or goal is a priority for you and why?

