S.W.I.M. Coalition

Stormwater Infrastructure Matters: utilizing stormwater as a resource, not a waste!

GET TO KNOW YOUR LOCAL WATERWAY

Flushing Creek & Flushing Bay

Historically a wetland, the landscape around Flushing Bay and Flushing Creek is the result of a landfill-turned-park, built for the 1939 World's Fair in Queens. On a visit to neighboring communities of Flushing, Corona or East Elmhurst, you may not notice the creek under the Whitestone or Van Wyck Expressway. But a stroll along the Flushing Bay Promenade will reward you with views of Flushing Bay.

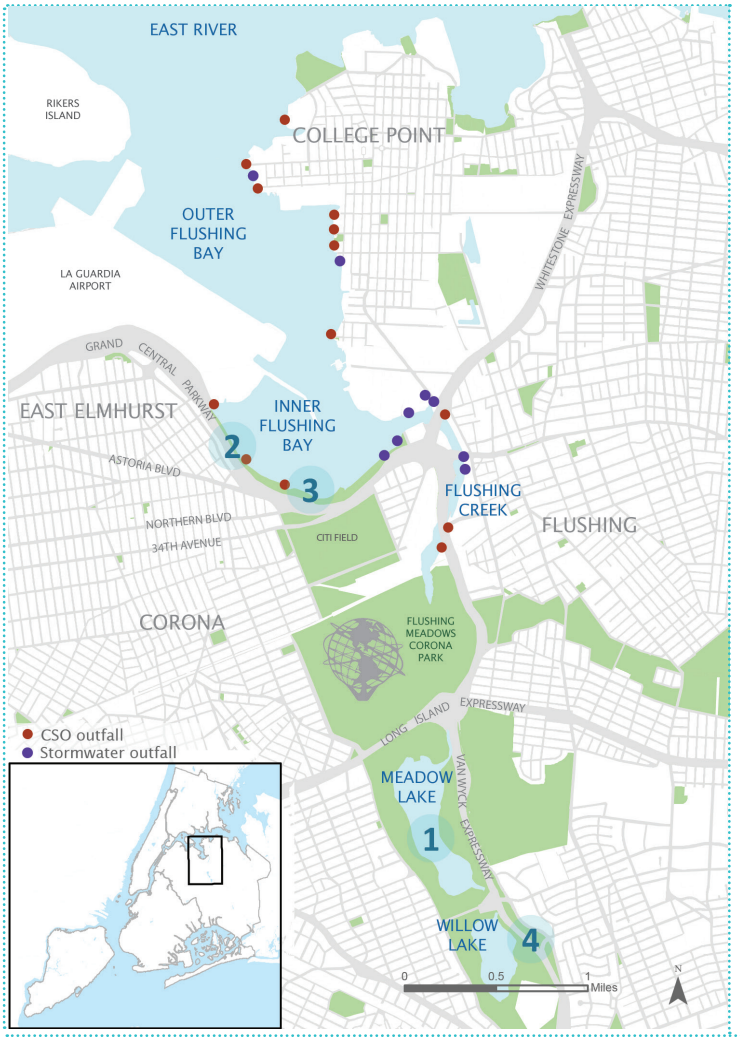
Flushing Bay is home to thousands of human-powered boaters. Dragon Boating, a Chinese form of boating, is particularly popular in the Bay. Every summer, hundreds of Dragon Boating teams converge for the annual Hong Kong Dragon Boat Festival in Flushing Meadows-Corona Park.

Proposed development on the waterfront raises conflicted interests. The thousands of units added in the development will add milions of gallons of sewage to an already overburdened sewer system. Yet plans for waterfront development will improve public accessways to the water, ultimately creating more awareness. What would you like to see happen on your waterfront?

photo courtesy of Korin Tangtrakul

photo courtesy of Sean Dixon

FIND YOUR WAY TO THE WATER



Both Flushing Bay and Flushing Creek are "Class I" waterways, designating it appropriate for recreational fishing and boating. Both waterbodies must meet swimmable, fishable water quality standards. See opposite side for plans to improve water quality and weigh in if you think it's not enough!

photo courtesy of Public Lab

ENJOY THE WATER!

1. Watch hundreds of Dragon Boaters compete at the annual Hong Kong Dragon Boat Festival in Flushing Meadows-Corona Park.
2. Go for a walk or bike ride on the waterfront promendade along Flushing Bay.
3. Launch from the World's Fair Marina for a kayak or other human-powered boating in Flushing Bay.
4. Go for a nature walk along the Willow Lake Trail.

Revised January 28, 2016 most recent version found at www.swimmablenyc.org in "resources" section.

SOURCES OF POLLUTION

SEWAGE

The two waterbodies receive a combined 2.3 billion gallons of combined sewer overflow (CSO) per year - 1.2 billion from Flushing Creek and 1.1 billion from Flushing Bay. A CSO event can happen with as little as a half an inch of rain. There were over 30 such rainstorms in 2014.

Major pollutants from CSO are pathogens and other bacteria such as Fecal Coliform and Enterococci. CSO can also lower the dissolved oxygen level in water, suffocating fish and aquatic life.

STORMWATER

Stormwater from separated sewer systems flows into the Creek and Bay untreated every time it rains. The Creek alone receives over 500 million gallons of stormwater discharge (in addition to CSO) via Meadow and Willow Lakes, or directly into the Creek. Flushing Bay recieves an additional unknown volume of stormwater discharge.

This carries heavy metals, oil, pet waste, litter and other pollutants found on the streets directly to waterbodies. Waterfront industrial sites, if they don't manage stormwater on site, may contribute significant pollution to both waterbodies.

IMPROVING THE WATER QUALITY: WHAT'S THE PLAN?

COMBINED SEWER OVERFLOW (CSO) LONG TERM CONTROL PLAN (LTCP)

NYC Department of Environmental Protection (DEP) is under a consent order by the state to submit an LTCP (Long Term Control Plan) to reduce CSO. DEP considers Flushing Creek and Flushing Bay to be separate waterbodies, and is developing two separate LTCPs. DEP submitted a plan for Flushing Creek to the state in October 2015, which has yet to be approved. The plan calls for no reduction of CSO, but rather seasonal disinfection at one of the major outfalls. DEP is currently analyzing the Flushing Bay watershed, and will reveal its draft plan at a public meeting in Spring 2016. Stay tuned for a community workshop preceding this meeting, hosted by Riverkeeper and SWIM Coalition.

MUNICIPAL SEPARATE STORMWATER SEWER (MS4)

Parts of the city's sewer system that are not combined sewer are part of a Municipal Separate Storm Sewer System (MS4). These separate storm sewers are not connected to wastewater treatment plants, which means stormwater is not treated before entering a waterway. The City is required by state permit to develop a plan to reduce the pollutants from entering the waterway through separate storm sewers. Roughly 35% of the Flushing Bay and Flushing Creek watersheds are MS4, a total of more than 6,000 acres that will fall under the MS4 permit.

DREDGING

Following plans from the 2011 Waterbody/Watershed Facility Plan, DEP will be dredging to remove CSO sediment in Flushing Bay from 2016 - 2019. The dredge area is 17.5 acres, and will take place along either side of World's Fair Marina. This process is to simply remove sediment that has built up from decades of CSO into the Bay, but does nothing to reduce future CSO.

Separetly, the US Army Corps of Engineers is nearing completion of a routine navigational channel dredging project in the Bay. The dredging is expected to be complete by the end of 2015.

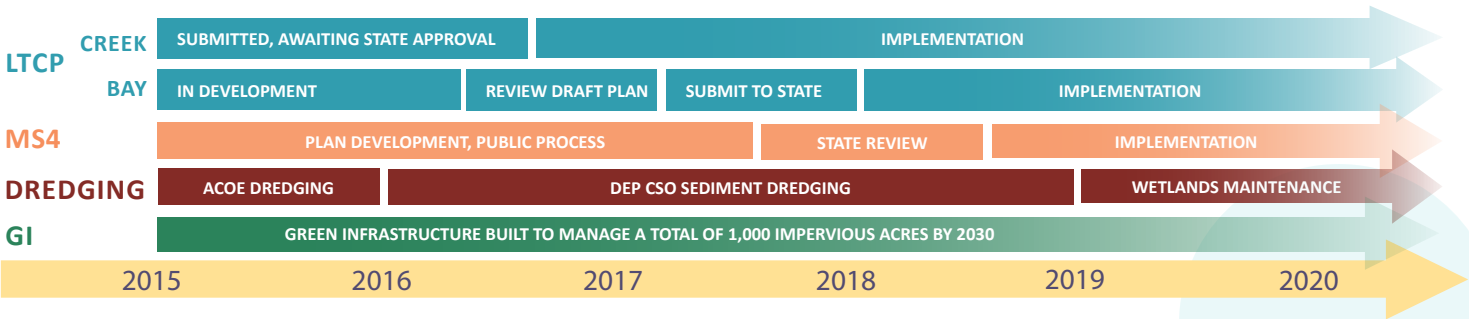
GREEN INFRASTRUCTURE (GI) PLAN

Green infrastructure helps mitigate stormwater from entering the sewer system while creating green jobs, reducing energy demand for buildings (with green roofs), and filtering the air among many other co-benefits. Both Flushing Bay and Flushing Creek watersheds are priority areas for green infrastructure. DEP is installing hundreds of streetside bioswales to manage stormwater on the streets and sidewalks. By 2030, DEP intends to manage 8% of Flushing Creek's watershed and 13% of Flushing Bay's watershed impervious cover with green infrastructure.

RESOURCES

- See S.W.I.M.'s LTCP fact sheet for more info!
- From DEP's website, you can download the city's Long Term Control Plan for Flushing Creek and the announcements for Flushing Bay's public meeting and materials.
- Check out SWIM's MS4 fact sheet to learn more!
- The state DEC has information about the program and permit on their MS4 webpage.
- DEP has a webpage with resources about the CSO sediment dredging.
- The Army Corps has a fact sheet about the navigation channel dredging.
- Learn more about the GI Plan on DEP's green infrastructure page.
- Contact DEP if you have questions or concerns about GI at 718-595-6500 or GIOutreach@dep.nyc.gov.

THE TIMELINE



Stormwater Infrastructure Matters (S.W.I.M.) is a coalition of 70 member organizations dedicated to ensuring swimmable and fishable waters around New York City through natural, sustainable stormwater management practices. For more information about the plans and to get involved with our outreach program contact us at swimmablenyc@gmail.com. Stay in touch and follow us @SWIMcoalition.