

# Newtown Creek OU2 Sampling Program

## ❖ Objective:

- Ensure that the assumptions made regarding the concentrations of contaminants of potential concern (COPCs) in ongoing sources evaluated during OU2 FFS are valid.
- Assess temporal trend of COPCs entering the Creek from four largest CSO outfalls.
- Estimate the discharge volumes from CSOs and stormwater to the Creek.

## ❖ Monitoring program will target all point source & East River locations sampled during the RI

- 7 Combined Sewer Overflow Outfalls
- 16 Stormwater locations Outfalls
- 8 Treated Discharge Outfalls
- East River Location

## ❖ Sampling Frequency

- Sample the 4 largest CSOs quarterly for the initial monitoring period of two years
- All other point source discharges and East River will be sampled at least once during the two-year monitoring period.

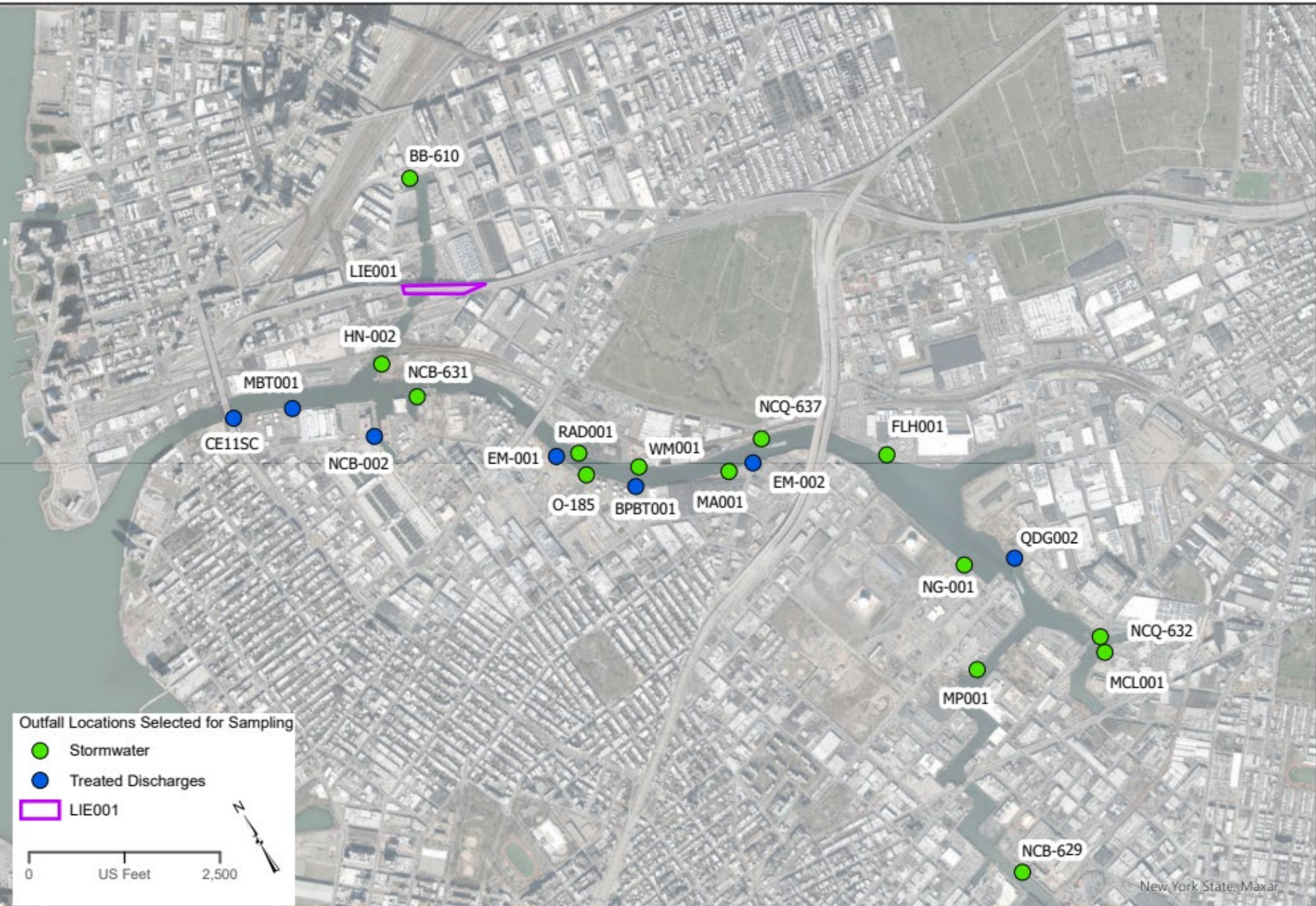
## ❖ NYC and EPA are working to finalize the work plan.

# Sampling Locations

# CSO Outfall Locations



# Stormwater/ Treated Discharges Locations



Outfall Locations Selected for Sampling

- Stormwater
- Treated Discharges
- ▬ LIE001

0 US Feet 2,500



# East River Location



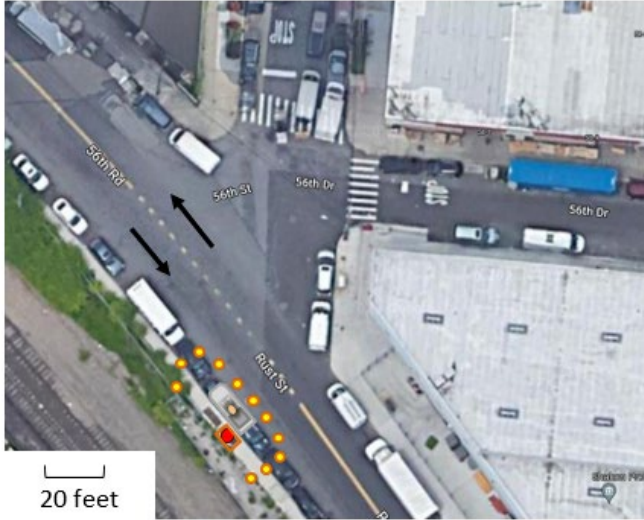
ER-001





● East River Sampling Location

0 US Feet 2,500

New York State, Maxar

# Setup and Sampling Locations



-  Sampling Vehicle
-  Tidegate Gate
-  Sampling Access Traffic
-  Cone

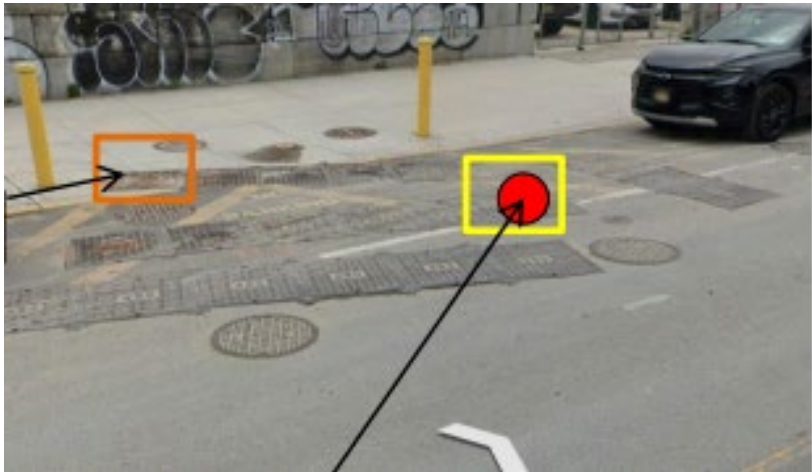






- Sampling Vehicle
- Manhole Gate
- Sampling Access
- Traffic Cone
- Road Sign
- Observation point
- Tidegate Gate

Note: Site conditions will dictate vehicle parking and equipment setup for each sampling event

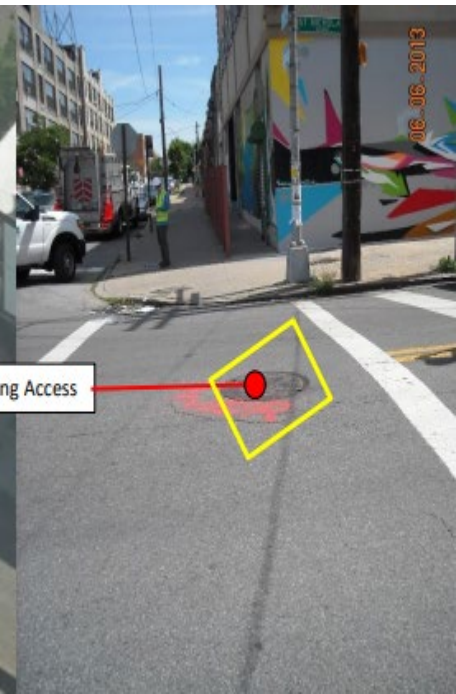




20 feet

- Sampling Vehicle
- Flagger
- Tidegate Gate
- Sampling Access
- Traffic Cone
- Road Sign
- Observation Point
- Manhole Gate

**Note:** Traffic control and work zone safety at this location will be provided by a subcontractor. Vehicle placement is approximate.





-  Sampling Vehicle
-  Tidegate Gate
-  Manhole Gate
-  Sampling Access
-  Traffic Cone
-  Observation Point



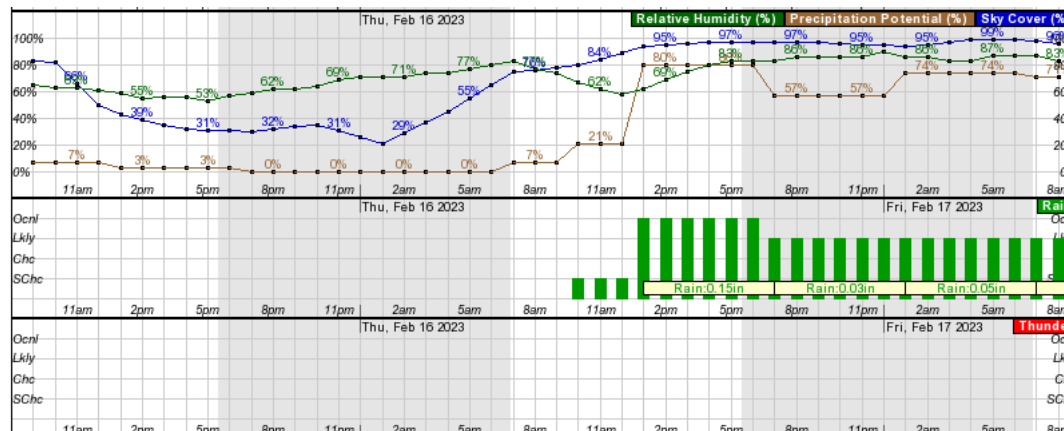
- Contaminants of Potential Concern
  - Polychlorinated biphenyls (PCB) – *USEPA Method 1668C*
  - Polycyclic Aromatic Hydrocarbons (TPAH17, TPAH34) - *USEPA SW-846 Modified Method 8270*
  - Metals (Lead and Copper) - *SW-846 Method 6010C/6020A*
  - Dioxins/Furans (D/F) - *USEPA Method 1613*
  - C19-C36 Aliphatics Petroleum Hydrocarbons - *TBD*
  
- Supporting Analyses
  - Total Suspended Solids - *SM2540D*
  - Total Dissolved Solids - *SM2540C*
  - Particulate Organic Carbon - *US EPA Region 2 Lloyd Kahn-modified*
  - Dissolved Organic Carbon - *SW-846 Method 9060*
  
- Samples will be characterized for dissolved and suspended phases to measure the concentrations on solids directly.

- In accordance with the 2022 SOW:
  - Written quarterly monitoring reports and annual data summary reports will be provided to EPA for the monitoring activities completed.
  - Quarterly LTCP Status Reports detailing information relating to the status of implementation of the LTCP will also be delivered.
  
- Upon review of the data, EPA may reasonably evaluate and adjust, if needed, the monitoring components and frequency during the monitoring program.

# Questions

# Storm Tracking

- NYCDEP will track the weather forecast from national weather service daily to look for approaching storms that will meet the criteria to initiate sampling at point source discharges in wet weather conditions. Local weather forecast for Long Island City will be tracked using the national weather Service using the following link: [Hourly Graphical Forecast for 40.75N 73.95W \(weather.gov\)](https://www.weather.gov/forecast/40.75N%2073.95W).
- National weather service provides an hourly forecast for five days. The hourly weather forecast provides an estimate of rainfall amounts along with the certainty of rainfall occurrence. These two metrics will be used to make a go/no go decision to mobilize for sampling. To avoid high number of false mobilizations, the forecasted storm must have a high certainty of occurrence (> 90%) 24 hours before the storm event.





# Sample Methodology

A storm event must meet the following minimum criteria to initiate a sampling event:

- Storm must be forecasted to produce a minimum of 0.3 inches of rainfall over a minimum duration of 3 hours.
- Storm must be preceded by at least a 48-hour dry period (less than 0.10 inches of rainfall).

Outfall Location	Point Source Discharge Type	Minimum Hourly Rainfall Intensity (in/hour) <sup>1</sup>	Minimum Total Rain (in) <sup>2</sup>
NCB083	CSO	0.10	0.31
NCQ077	CSO	0.11	0.34
NCB015	CSO	0.16	0.49
BB026	CSO	0.12	0.36
BB009	CSO	0.12	0.35
NCQ029	CSO	0.07	0.21
NCB022	CSO	0.18	0.55
NCB002	Treated Discharge - WWTP Effluent	0.13	0.40

Notes:

1. Assumes 48-hr antecedent dry-weather (< 0.1 inch rain) conditions.
2. Minimum hourly rainfall intensity over a 3-hour period required to generate a discharge, given the typical daily range of tidal elevations.
3. Minimum total rainfall over a 3-hour period required to generate a discharge, given the minimum hourly intensity shown and the typical daily range of tidal elevations.