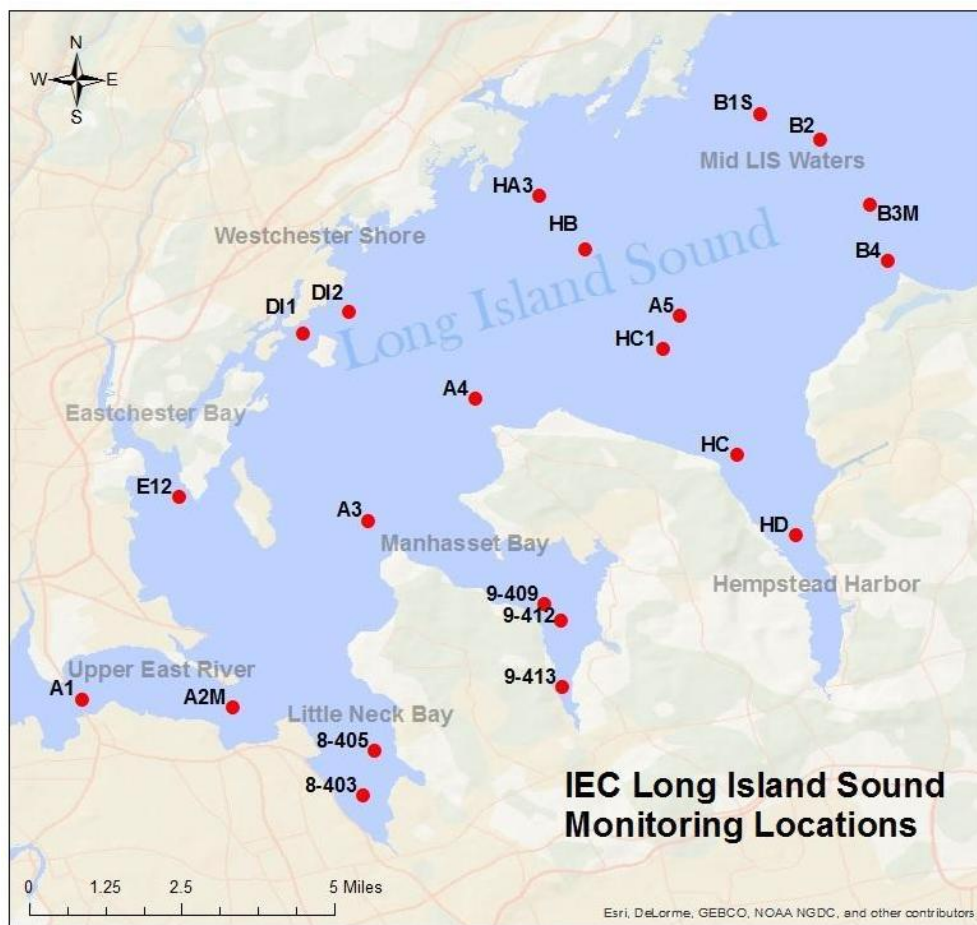




**Interstate
Environmental
Commission**
NY · NJ · CT

Western Long Island Sound Monitoring 2026 Summer Survey Biweekly Summary Surveys #7 & #8 Survey Dates: August 4, 2026 & August 11, 2026



STATION	LATITUDE	LONGITUDE
8-403	40.7778	-73.7608
8-405	40.7888	-73.7582
9-409	40.8240	-73.7175
9-412	40.8200	-73.7135
9-413	40.8041	-73.7133
A1	40.8013	-73.8045
A2M	40.7992	-73.7913
A3	40.8433	-73.7590
A4	40.8725	-73.7343
A5	40.8923	-73.6853
B1S	40.9403	-73.6667
B2	40.9343	-73.6520
B3M	40.9187	-73.6403
B4	40.9054	-73.6360
DI1	40.8883	-73.7748
DI2	40.8930	-73.7642
E-12	40.8487	-73.8045
H-A3	40.9207	-73.7187
H-B	40.9080	-73.7090
H-C	40.8590	-73.6717
H-C1	40.8853	-73.6903
H-D	40.8402	-73.6572

Table 1. List of IEC Western Long Island Sound sampling station coordinates in decimal degrees

As a part of the Long Island Sound Partnership’s ongoing water quality monitoring program, the Interstate Environmental Commission (IEC) started its 36th consecutive summer of weekly ambient monitoring surveys in the western Long Island Sound and the upper East River on Wednesday, June 24th, 2026.

Throughout the summer of 2026, IEC staff will perform 12 weekly surveys at each of the 22 stations in the far western Long Island Sound to assess seasonal hypoxic conditions. Hypoxia occurs when dissolved oxygen (“DO”) concentrations drop to less than 3 mg/L. Marine organisms need oxygen to live and low oxygen levels can have serious consequences in a marine ecosystem.

The 12 surveys include weekly *in situ* measurements of water temperature, salinity, dissolved oxygen, pH, turbidity, and Secchi disk depth. Measurements at each station are taken half a meter below the surface, at mid-depth, and half a meter above the bottom depending on total station depth.

Biweekly surveys will include collection of additional samples for parameters relevant to hypoxia at 11 of the 22 stations (stations listed in **bold** in Table 1). These samples will be analyzed for nutrients, Biochemical Oxygen

Interstate Environmental Commission (IEC)

www.iec-nynjct.org

C/O BioBAT

Brooklyn Army Terminal,
Building A

140 58th Street
Brooklyn, NY 11220

Demand (BOD), Total Suspended Solids (TSS), and chlorophyll α , in addition to the suite of *in situ* parameters listed above.

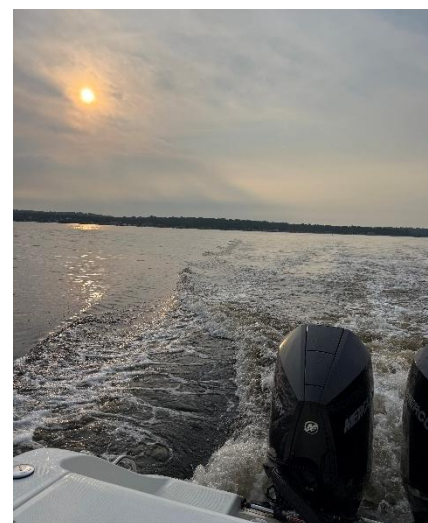
Nutrient parameters that will be analyzed include Ammonia, Nitrate+Nitrite, Particulate Nitrogen, Orthophosphate/DIP, Total Dissolved Phosphorus, Particulate Phosphorus, Dissolved Organic Carbon, Particulate Carbon, Dissolved Silica, and Biogenic Silica.

In October 2022, IEC also began collecting samples for dissolved inorganic carbon (DIC) and total alkalinity to monitor coastal acidification. In aquatic ecosystems, **DIC** acts as a source of carbon for photosynthesis and has a function in controlling the pH. Increasing CO₂ levels may increase coastal acidification, which can pose a significant threat to marine life, including calcifying organisms like corals and shellfish that make hard shells and skeletons by combining calcium and carbonate from seawater. **Total Alkalinity** is the capacity of water to resist, or buffer against a change in pH when acidity is added. Total Alkalinity guards against pH changes and coastal acidification.

Proposed 2026 Summer Schedule		
Date	Survey Number	Parameters
06/24/2026	1	<i>In situ</i> , Nutrients, Chlorophyll α , BOD, TSS, Total Alkalinity
07/01/2026	2	<i>In situ</i> Parameters Only
07/10/2026	3 (Canceled)	<i>In situ</i> , Nutrients, Chlorophyll α , BOD, TSS, Total Alkalinity
07/14/2026	4	<i>In situ</i> , Nutrients, Chlorophyll α , BOD, TSS, Total Alkalinity
07/22/2026	5	<i>In situ</i> Parameters Only
07/30/2026	6	<i>In situ</i> , Nutrients, Chlorophyll α , BOD, TSS, Total Alkalinity
08/04/2026	7	<i>In situ</i> Parameters Only
08/11/2026	8	<i>In situ</i> , Nutrients, Chlorophyll α , BOD, TSS, Total Alkalinity
08/18/2026	9	<i>In situ</i> Parameters Only
08/25/2026	10	<i>In situ</i> , Nutrients, Chlorophyll α , BOD, TSS, Total Alkalinity
09/03/2026	11	<i>In situ</i> Parameters Only
09/10/2026	12	<i>In situ</i> , Nutrients, Chlorophyll α , BOD, TSS, Total Alkalinity



Recreation in Manhasset Bay during LIS Survey #7



Sun rising during LIS Survey #8

SURVEY #7 AT A GLANCE 08/04/2026

Hypoxia (DO < 3.00 mg/L)	No stations exhibited hypoxia at surface depth 13 stations exhibited hypoxia at bottom depth: Mid LIS Waters – A3, A4, A5, B1S, B2, B3M, H-C1 Upper East River – A1, A2M Westchester Shoreline – DI2, H-A3, H-B Hempstead Harbor – H-C
Lowest surface DO concentration	3.72 mg/L (Station A1 in the Upper East River)
Lowest bottom DO concentration	1.15 mg/L (Station H-C1 in Mid LIS Waters)
Average surface DO concentration	6.02 mg/L
Average bottom DO concentration	2.81 mg/L
Average surface water temperature	23.08 °C
Average bottom water temperature	21.87 °C
Average water column ΔT	1.214 °C
Average surface salinity	26.27 ppt
Average bottom salinity	27.11 ppt
Lowest surface pH	7.04 S.U. (H-D in Hempstead Harbor)
Lowest bottom pH	6.96 S.U. (Station 9-413 in Manhasset Bay and H-C1 in Mid LIS Waters)
Average surface pH	7.36 S.U.
Average bottom pH	7.06 S.U.

Survey #7 Narrative Summary

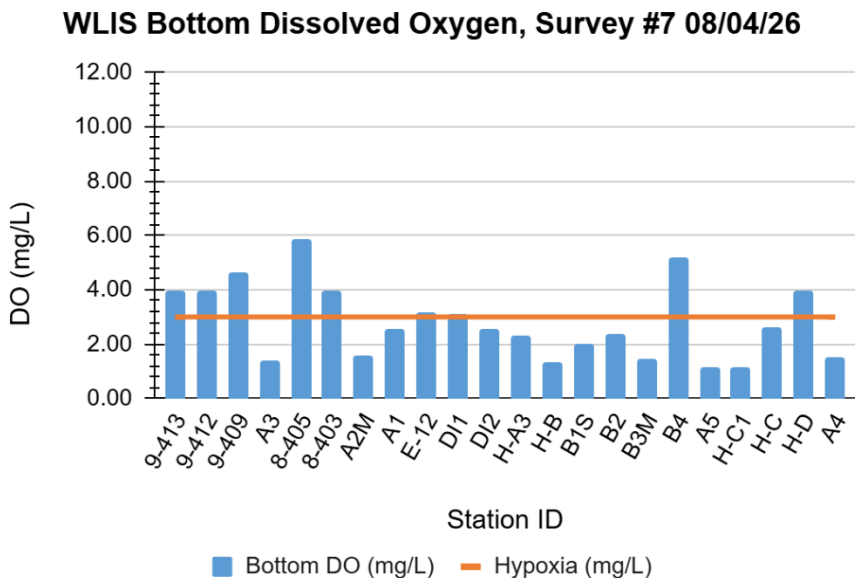
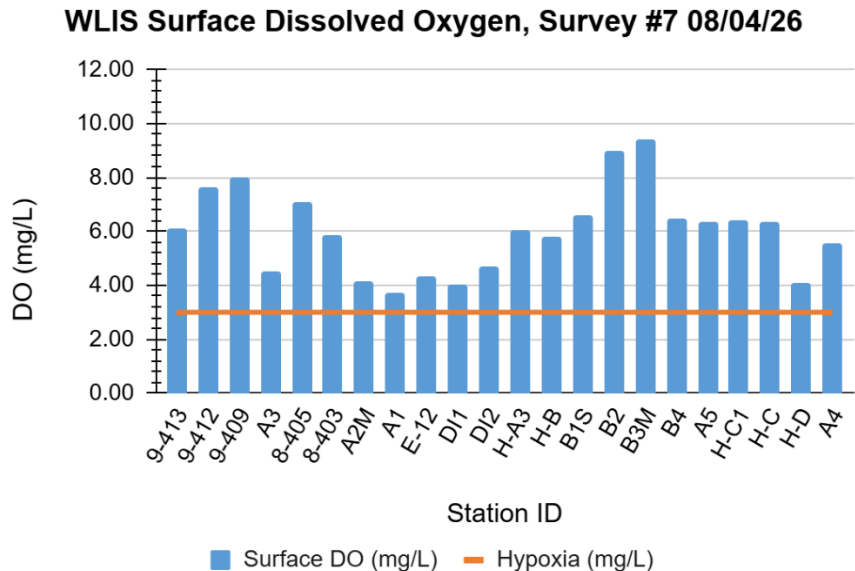
This survey began at 07:03 and ended at 10:35. The most recent high tides occurred at 09:18 at New Rochelle, NY and 09:36 at Kings Point, NY. Weather conditions were partly cloudy throughout the survey, with cloud coverage remaining at 0%. Air temperature increased from 70°F to 79°F during the survey. The NOAA National Weather Service station at LaGuardia Airport, NY recorded a total of 0.28" and 1.97" of precipitation during the 24- and 48-hour periods prior to the start of the survey, respectively. Secchi disk measurements ranged from 1.25 meters to 3.25 meters.

No stations exhibited hypoxic conditions at surface depth; however, hypoxia was observed at the bottom of 13 stations. Average surface and bottom DO concentrations were *lower* during this survey compared to Survey #7 in 2025. Average Surface DO: 6.02 mg/L in 2026 vs 7.38 mg/L in 2025. Average Bottom DO: 2.81 mg/L in 2026 vs 3.51 mg/L in 2025.

Average surface and bottom water temperatures were *lower* during this survey compared to Survey #7 in 2025. Average Surface Temperature: 23.08 °C in 2026 vs 23.77°C in 2025. Average Bottom Temperature: 21.87 °C in 2026 vs 22.27 °C in 2025.

Average surface and bottom salinity were *higher* during this survey compared to Survey #7 in 2025. Average Surface Salinity: 26.27 ppt in 2026 vs 25.76 ppt in 2025. Average Bottom Salinity: 27.11 ppt in 2026 vs 26.22 ppt in 2025.

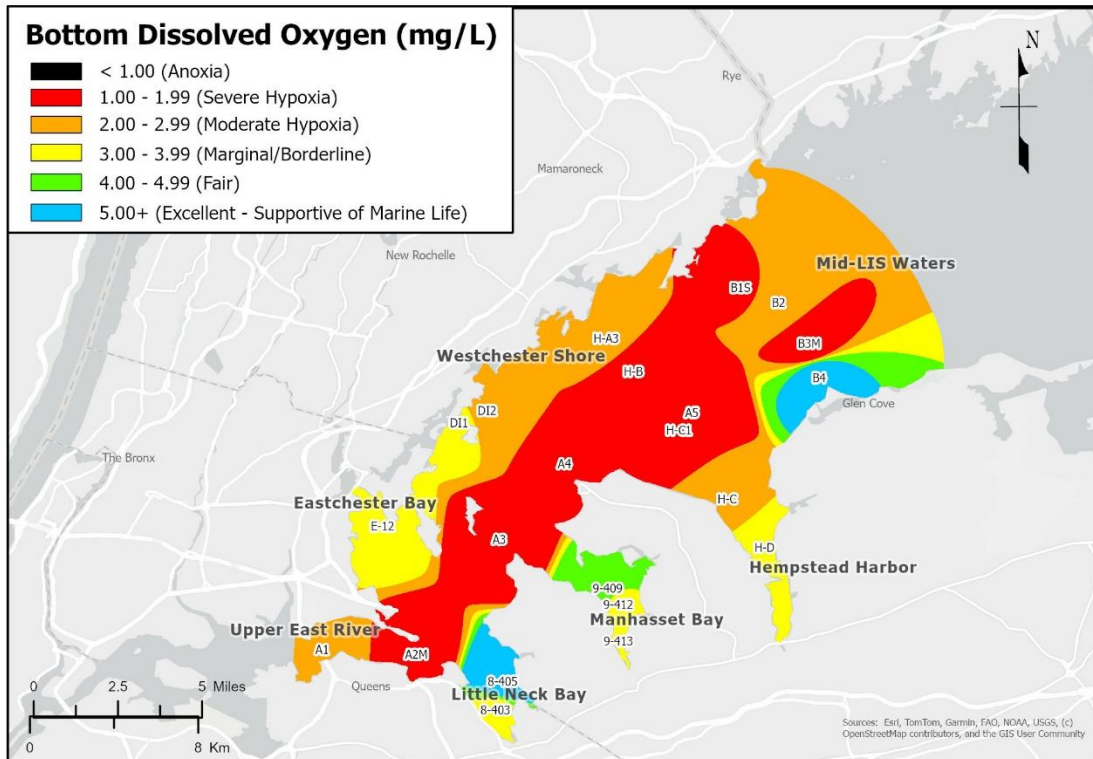
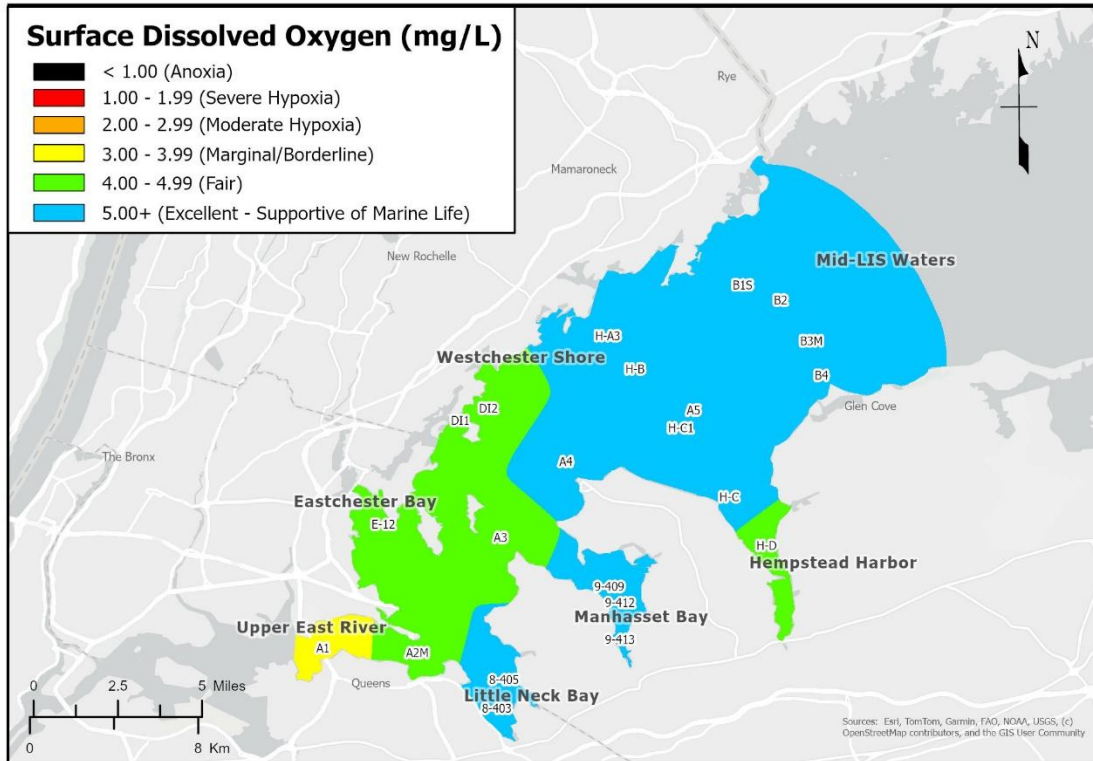
Average surface and bottom pH were *lower* during this survey compared to Survey #7 in 2025. Average Surface pH: 7.36 S.U. in 2026 vs 7.76 S.U. in 2025. Average Bottom pH: 7.06 S.U. in 2026 vs 7.34 S.U. in 2025.



The Long Island Sound Partnership defines hypoxia as DO values which are below a concentration of 3.00 mg/L.

Interstate Environmental Commission Ambient Water Quality Monitoring of the Western Long Island Sound

Weekly Survey #7: August 4, 2026



IDW Interpolation, Power 10

Map by: Samantha Wilder

Map Created: 08/05/2026

SURVEY #8 AT A GLANCE 08/11/2026

Hypoxia (DO < 3.00 mg/L)	2 stations exhibited hypoxia at surface depth Manhasset Bay – 9-413 Westchester Shoreline – DI2 19 stations exhibited hypoxia at bottom depth: Manhasset Bay – 9-413, 9-412, 9-409 Mid-LIS Waters – A3, A4, A5, B1S, B2, B3M, B4, H-C1 Upper East River – A1, A2M Westchester Shoreline – DI1, DI2, H-A3, H-B Hempstead Harbor – H-C, H-D
Lowest surface DO concentration	1.07 mg/L (Station 9-413 in Manhasset Bay)
Lowest bottom DO concentration	0.56 mg/L (Stations B4 and H-C1 in Mid-LIS Waters)
Average surface DO concentration	5.51 mg/L
Average bottom DO concentration	1.63 mg/L
Average surface water temperature	23.78 °C
Average bottom water temperature	22.05 °C
Average water column ΔT	1.725 °C
Average surface salinity	26.80 ppt
Average bottom salinity	27.38 ppt
Lowest surface pH	6.87 S.U. (Station 9-413 in Manhasset Bay)
Lowest bottom pH	6.84 S.U. (Station 9-413 in Manhasset Bay)
Average surface pH	7.52 S.U.
Average bottom pH	7.13 S.U.

Survey #8 Narrative Summary

The survey began at 07:05 and ended at 11:05, with the most recent low tide at 05:02 and 05:20 at New Rochelle, NY and Kings Point, NY, respectively. The weather conditions were mostly cloudy with cloud coverage varying from 0% to 100% throughout the survey. The average air temperature ranged from 75 °F to 82 °F. The NOAA National Weather Service station at LaGuardia Airport, NY recorded a total of 0.08" of precipitation for both the 24- and 48-hour period prior to the start of the survey. Secchi disk measurements ranged from 0.75 meters to 2.50 meters.

Two stations exhibited hypoxic conditions at surface depth and 19 stations exhibited hypoxia at bottom depth. Average surface and bottom DO were *lower* during this survey compared to Survey #8 in 2025.
Average Surface DO: 5.51 mg/L in 2026 vs 5.84 mg/L in 2025. Average Bottom DO: 1.63 mg/L in 2026 vs 4.32

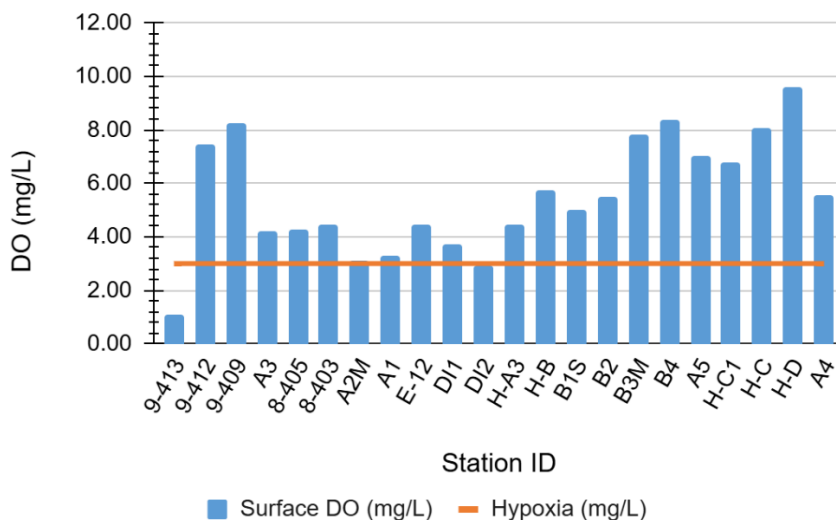
mg/L in 2025.

Average water temperature at surface and bottom depths were *lower* during this survey compared to Survey #8 in 2025. Average Surface Temperature: 23.78 °C in 2026 vs 23.92 °C in 2025. Bottom: 22.05 °C in 2026 vs 23.15 °C in 2025.

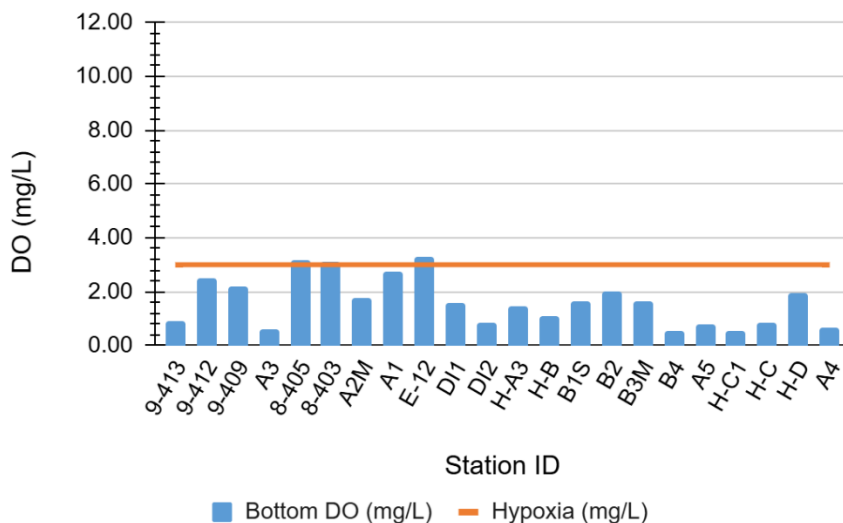
Average surface and bottom salinity were *higher* during this survey compared to Survey #8 in 2025. Average Surface Salinity: 26.80 ppt in 2026 vs 25.78 ppt in 2025. Average Bottom Salinity: 27.38 ppt in 2026 vs 26.22 ppt in 2025.

Average surface pH was *higher*, and bottom pH was *lower* during this survey compared to Survey #8 in 2025. Average Surface pH: 7.52 S.U. in 2026 vs 7.50 S.U. in 2025. Average Bottom pH: 7.13 S.U. in 2026 vs 7.36 S.U. in 2025.

WLIS Surface Dissolved Oxygen, Survey #8 08/11/26



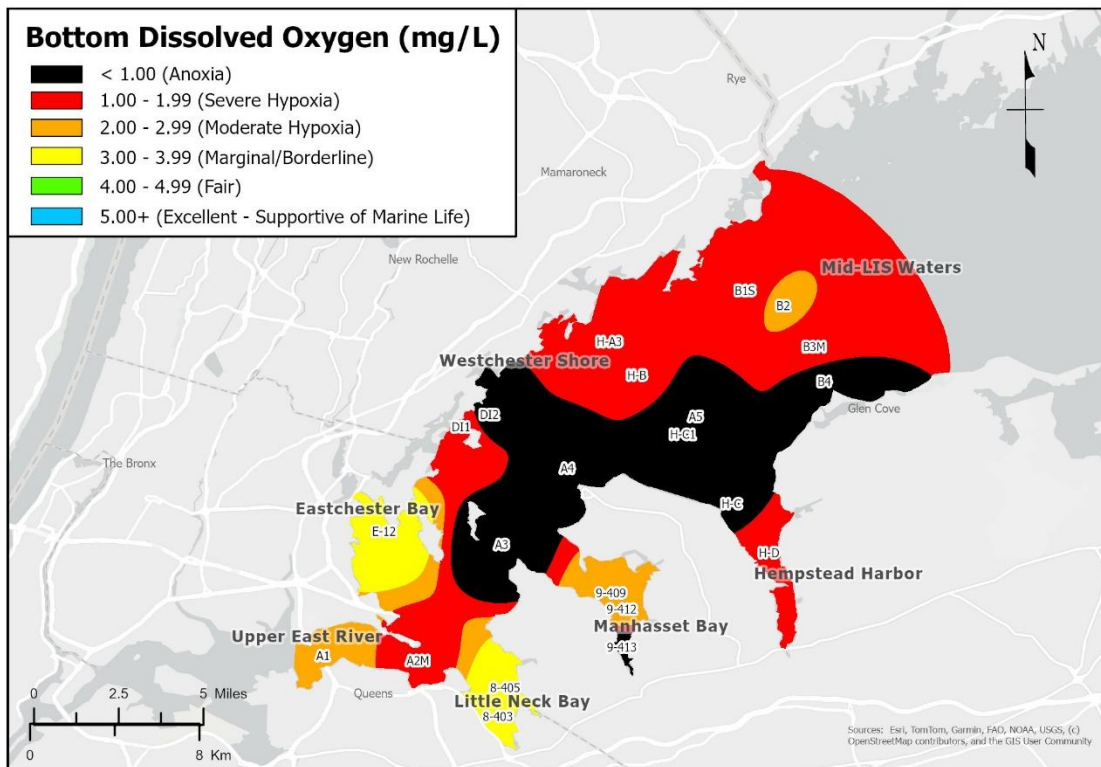
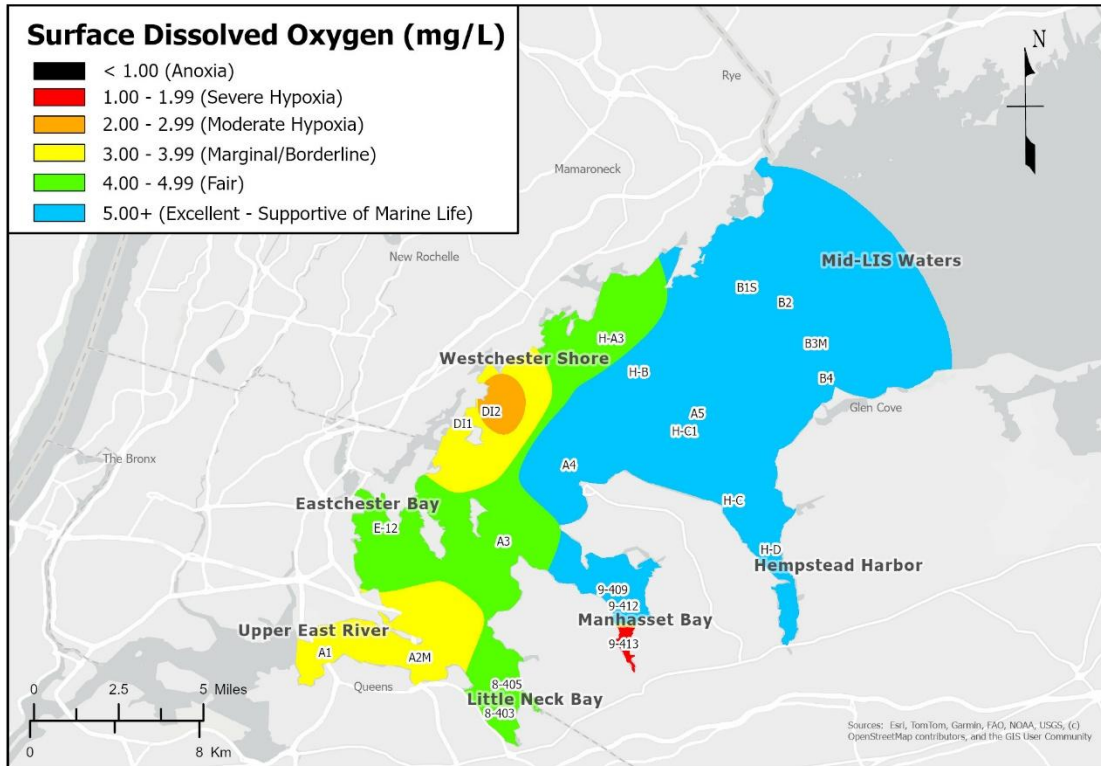
WLIS Bottom Dissolved Oxygen, Survey #8 08/11/26



The Long Island Sound Partnership defines hypoxia as DO values which are below a concentration of 3.00 mg/L.

Interstate Environmental Commission Ambient Water Quality Monitoring of the Western Long Island Sound

Weekly Survey #8: August 11, 2026



IDW Interpolation, Power 10

Map by: Samantha Wilder

Map Created: 08/12/2026