

**GOWANUS CANAL SUPERFUND SITE
RTA1 REMEDIAL CONSTRUCTION
Water Quality Monitoring Weekly Data Summary**

PERIOD: August 7 – August 11, 2023

Date of Report: August 15, 2023

Report Contents

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1. SCOPE OF MONITORING

1.1 Initial Buoy Locations

In accordance with the Water Quality Monitoring Plan for In-waterway Construction Activities (WQMP) three turbidity buoys were deployed to monitor turbidity related to dredging activities. One turbidity buoy was deployed just south of the 3rd Street Bridge outside of the air curtain and traditional turbidity curtain and was referred to as the 3rd Street Sentinel Buoy. A second turbidity buoy was deployed just south of Carroll St Bridge to monitor dredging activities north of Carroll Street Bridge and was referred to as the Carroll Street Sentinel Buoy. The third turbidity buoy was deployed in the Fourth Street Turning Basin (TB4) in order to monitor background turbidity unaffected by in-water construction activities and was referred to as the Ambient Buoy.

Each turbidity buoy was equipped with a YSI EXO3 water quality meter with optical turbidity sensor. The buoys were field calibrated and programmed such that readings were collected every 15 minutes. After each measurement, the turbidity data were transmitted to a File Transfer Portal (FTP) site via telemetry.

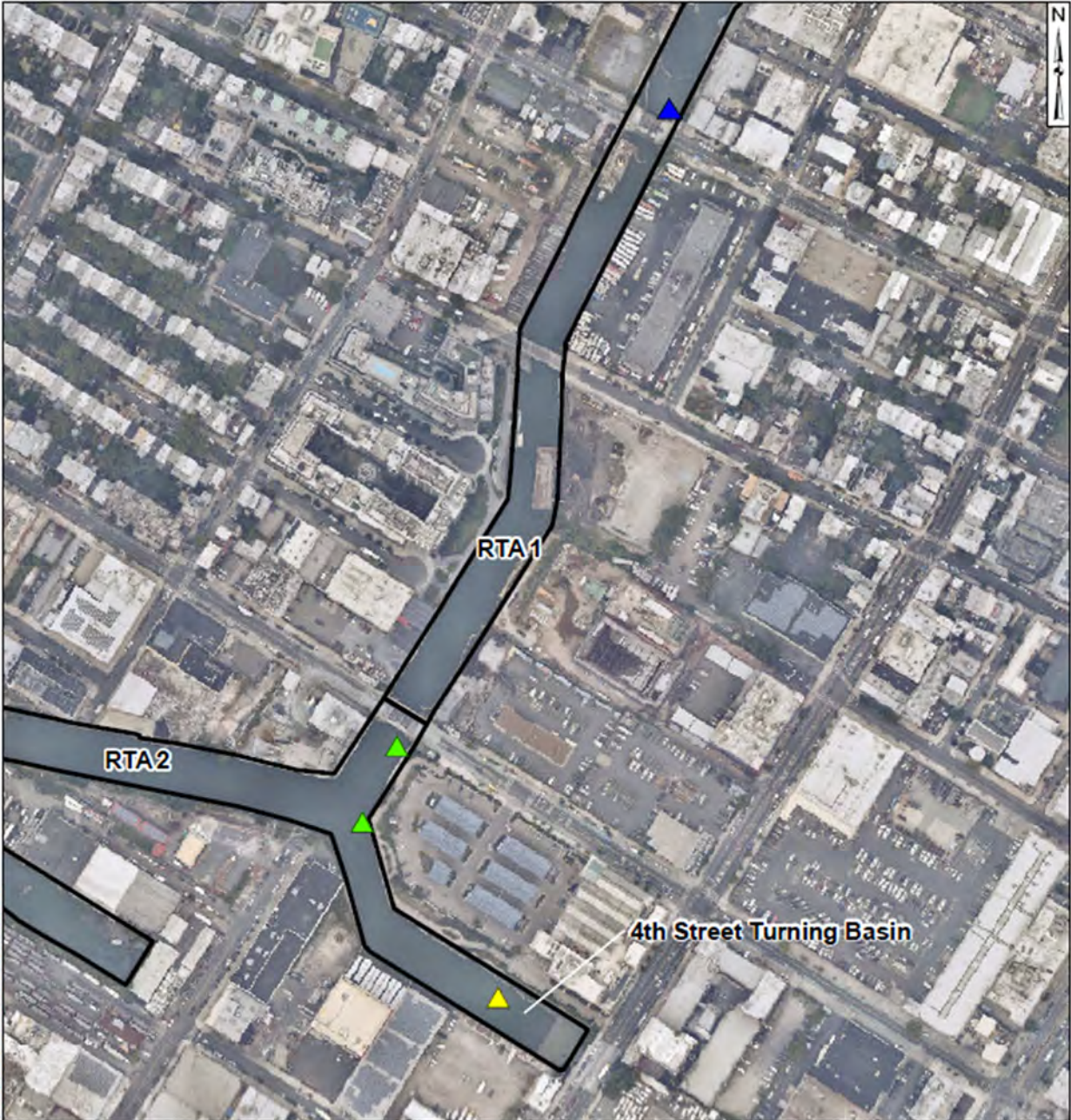
1.2 Summary of Monitoring Adjustments during Construction

- On January 22, 2021, prior to dredging north of the Union Street Bridge, a fourth turbidity buoy was deployed just south of the Union Street Bridge and was referred to as the Union Street Sentinel Buoy. This fourth turbidity buoy was removed prior to the start of pipe pile installation.
- On Wednesday, September 22, 2021, the Carroll Street Sentinel Buoy was relocated to the west side of the canal where Degraw Street intersects the canal to monitor cofferdam removal activities conducted in the vicinity of the Flushing Tunnel. This buoy was renamed the Degraw Street Sentinel Buoy during cofferdam removal activities.
- On October 14, 2021, the Degraw Street Sentinel Buoy was removed from the canal for servicing. On October 20, 2021, the Degraw Street Sentinel Buoy was redeployed to its position south of the Carroll Street Bridge and was renamed to the Carroll Street Sentinel Buoy.
- On November 15, 2021, the Carroll Street Sentinel Buoy was moved to the Union Street Bridge and renamed the Union Street Sentinel Buoy. On December 3, 2021, the Union Street Buoy was removed from the canal for servicing and re-deployed at 3rd Street Bridge in preparation for the resumption of ISS operations. On December 8, 2021, a sentinel buoy was re-deployed just south of the Carroll Street Bridge.
- Since December 8, 2021, the sentinel buoy deployed at the northern-most portion of the canal has alternated positioning between the Union Street Bridge and Carroll Street Bridge locations based on the in-canal construction activities being conducted at any given time.

- On January 9, 2023, the Carroll Street Sentinel Buoy was moved to the Third Street Bridge location and renamed the Third Street Sentinel Buoy. Additionally, the former Third Street Sentinel Buoy was removed from the canal for servicing.
- On February 6, 2023, the newly serviced Third Street Sentinel Buoy was reinstalled at Third Street Bridge, and the former Carroll Street Sentinel Buoy was reinstalled at Carroll Street Bridge.
- The Ambient Buoy was removed from service on Friday, February 17, 2023, due to a faulty communications system. Following investigation into the cause of the fault and the appropriate repairs made, the Ambient Buoy was returned to service on Thursday, April 13, 2023. Due to similar issues, the Ambient Buoy was removed from service again on Monday, April 24, 2023, before being redeployed on Friday, May 12, 2023, and again removed from service on Monday, May 15, 2023, before being redeployed on Monday, June 12, 2023.
- On Thursday April 13, 2023, the Carroll Street Sentinel Buoy was assessed to be within 100ft of in-canal construction activities being conducted at Carroll Street Bridge, and consequently was repositioned to the North Third Street Sentinel Buoy location.
- Data from the Third Street Sentinel Buoy was not reported from Thursday June 1, 2023 to June 2, 2023 due to a power failure and/or faulty communications system preventing transmission of readings. The Third Street Sentinel Buoy was returned to service with data collection resuming on June 5, 2023.
- On Wednesday, July 26, 2023, a fourth monitoring buoy was deployed just south of the Union Street Bridge to monitor dissolved oxygen (DO) in RTA1.

1.3 Current Reporting Period Scope of Monitoring

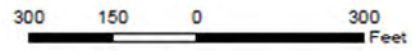
For the week of August 7, 2023, three turbidity buoys were deployed consisting of the Ambient Turbidity Buoy located in the eastern end of TB4, the West TB4 Sentinel Buoy located just outside of any sediment and floatables controls at the southern end of RTA1, and the South Third Street Sentinel Buoy located just south of the Third Street Bridge. In addition, a fourth monitoring buoy was deployed just south of the Union Street Bridge to monitor DO in RTA1, with readings being transmitted via telemetry at 15-minute intervals. Handheld DO measurements were also collected from multiple additional locations along the Canal during this reporting period. The instrument used to collect DO from the new monitoring buoy and the handheld unit is an In-Situ AquaTroll500 equipped with an optical Rugged Dissolved Oxygen (RDO) Sensor capable of reading DO levels with an accuracy of +/-0.1 mg/L. Visual observations of turbidity and sheen are summarized in Section 4.



\\Bevering\Gowanus\RTA\GIS\med\Canal\Water\Subsidiary\Buoy Locations.mxd, 06/01/2023, 11:29:2020

Legend

- ▲ Ambient Buoy
- ▲ Sentinel Buoy
- ▲ DO Buoy
- RTA Boundary



**Water Quality Monitoring
Buoy Locations**

Gowanus Canal, Brooklyn, NY

B&B Engineers & Geologists
of new york, p.c.

an affiliate of Geosyntec Consultants

Brooklyn, NY

July 2023

Figure

1

2. REPORT OF EXCEEDANCES

No exceedances to the quantitative trigger or action criteria were observed during the reporting period.

- **Trigger criterion** – Any of the following:
 - The rolling average of the relevant sentinel buoy turbidity measurements over a one-hour period exceeds the rolling average of the ambient buoy turbidity measurements by 20 NTU excluding any eliminated outlier measurements and in-waterway construction activities cannot be immediately excluded as the source following consultation with EPA; or
 - Either an oil sheen or a turbidity plume is visually observed at the relevant sentinel buoy and in-waterway construction activities are readily identified as the source.
- **Action criterion** – Any of the following:
 - The rolling average of the turbidity measurements of the sentinel buoy outside of RTA1 over a one-hour period exceeds the rolling average of the ambient buoy turbidity measurements by 40 NTU excluding any eliminated outlier measurements and in-waterway construction activities cannot be immediately excluded as the source following consultation with EPA; or
 - Either an oil sheen or a turbidity plume is visually observed outside of RTA1 and any deployed engineering controls and in-waterway construction activities are readily identified as the source.

An outlier is defined as a reading that is outside the range of 50 to 200 percent of the average of the three previous readings. In addition, to be considered an outlier, the subsequent reading must return to a range of 75 to 133 percent of the average of the three readings preceding the outlier.

2.1 Response to Criteria Exceedances

The trigger level criterion serves to provide early notification to the contractor of construction activities that may lead to an exceedance of the action level criterion. In the event of an exceedance to the trigger criterion, the contractor will not be stopped, and the contractor will be directed to investigate the source of the exceedance and evaluate Best Management Practices (BMPs). In the event of an exceedance to the action level criterion, in-waterway construction activities may be slowed or temporarily suspended as necessary while the contractor investigates the source of the exceedance and appropriate mitigation and corrective measures are determined. A more detailed description of responses to exceedances of the trigger and action level criteria is provided in Section 4.2 of the WQMP.

No exceedances to the quantitative trigger or action criteria were observed during the reporting period.

3. TURBIDITY BUOY DATA

The following section provides turbidity data for the sentinel and ambient turbidity buoys from 7 AM to 6 PM from August 7 – August 11, 2023.

No exceedances to the quantitative trigger or action criteria were observed during the reporting period.

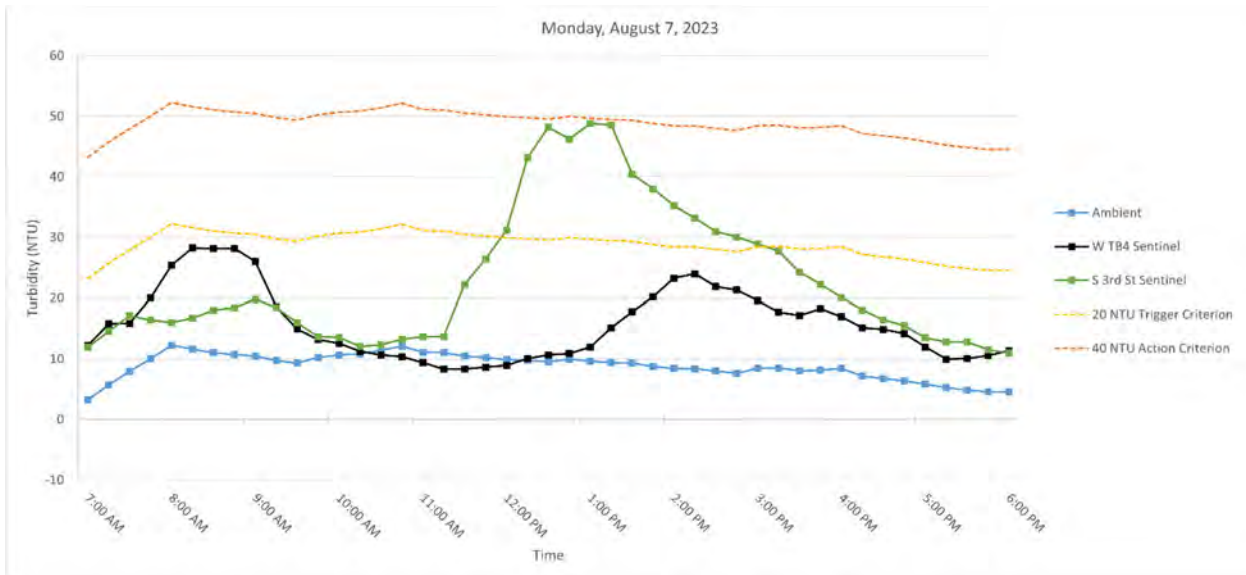
Table 1 below provides a summary of the turbidity data for the reporting period.

Date	Average Rolling Average Difference (NTU)		Maximum Rolling Average Difference (NTU)	
	W TB4 - Ambient	S 3rd St - Ambient	W TB4 - Ambient	S 3rd St - Ambient
Monday, August 7, 2023	6.99	14.16	17.47	39.15
Tuesday, August 8, 2023	2.14	4.26	8.17	17.62
Wednesday, August 9, 2023	-0.10	1.59	19.48	39.29
Thursday, August 10, 2023	4.80	6.93	46.96	29.70
Friday, August 11, 2023	-2.30	7.44	5.20	39.29

Table 1. Daily average and maximum differences between the rolling average turbidity readings from RTA1 sentinel buoys and the ambient buoy between 7 AM and 6 PM.

3.1 Monday, August 7, 2023

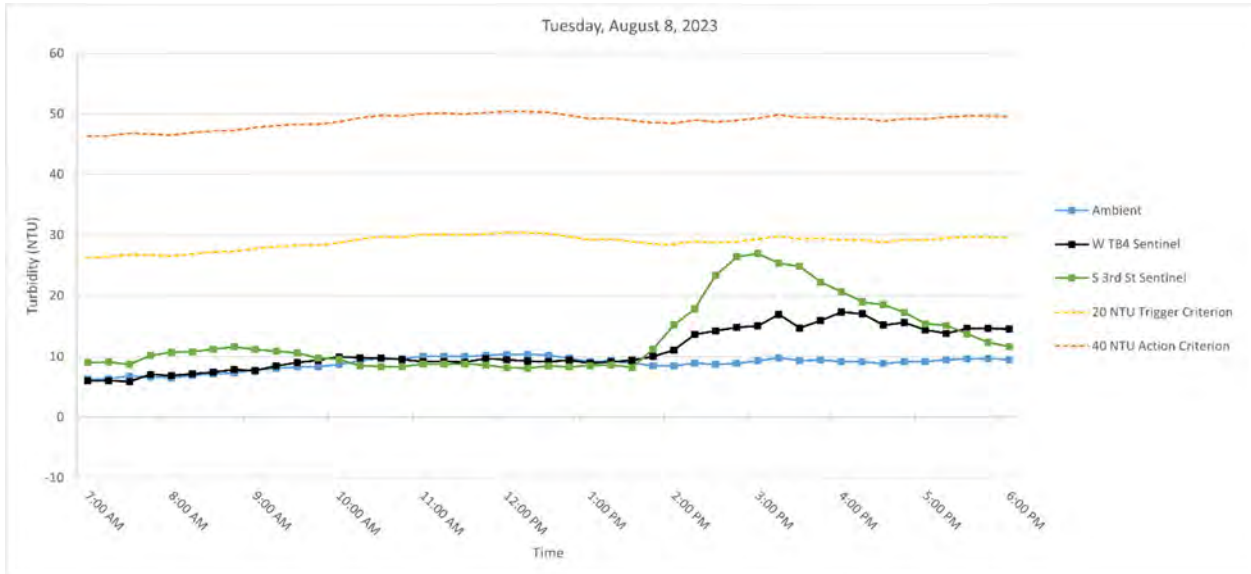
Figure 3. Hourly rolling average turbidity readings on Monday, August 7, 2023, from 7 AM to 6 PM.



Note: Excessive turbidity readings were recorded at the South Third Street Sentinel Buoy due to heavy rain events.

3.2 Tuesday, August 8, 2023

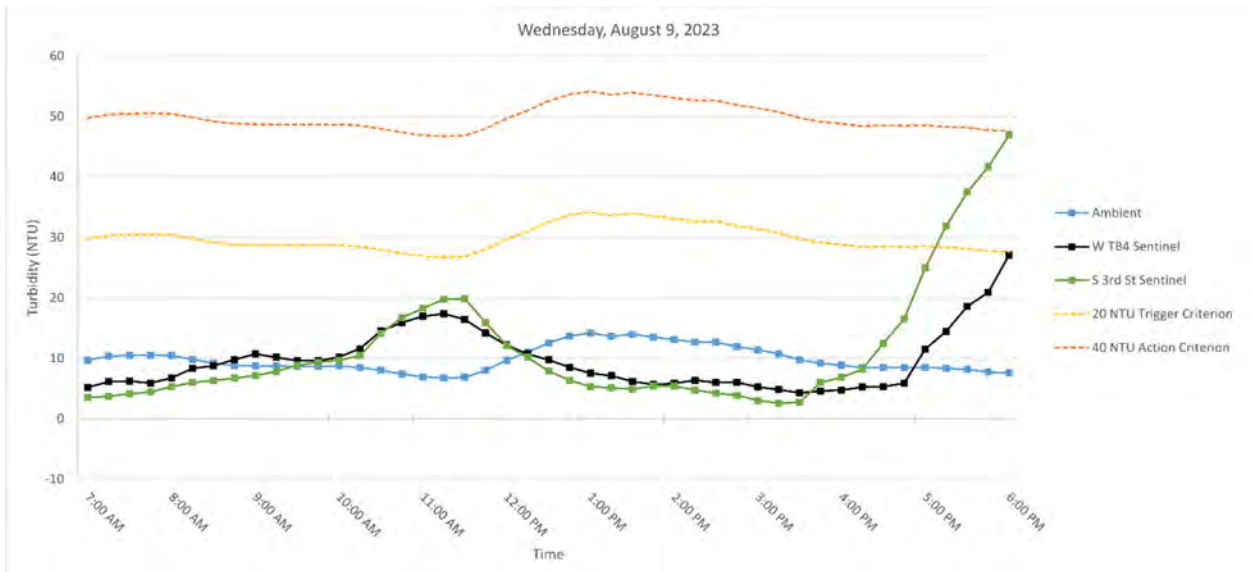
Figure 3. Hourly rolling average turbidity readings on Tuesday, August 8, 2023, from 7 AM to 6 PM.



Note: No outlier turbidity readings above 20 NTU were detected.

3.3 Wednesday, August 9, 2023

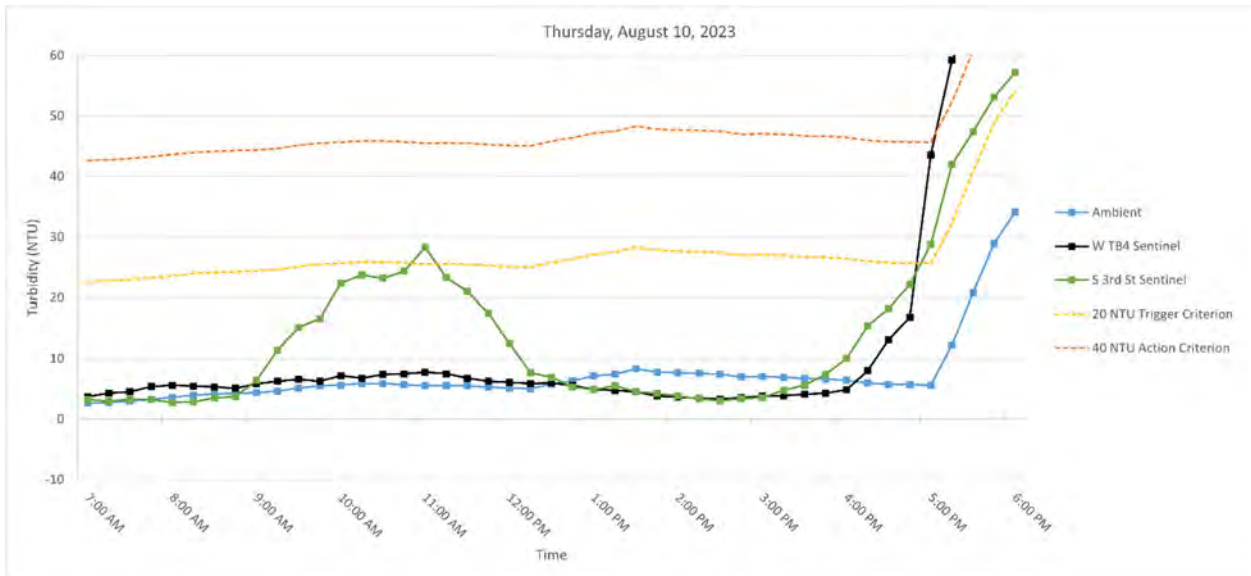
Figure 4. Hourly rolling average turbidity readings on Wednesday, August 9, 2023, from 7 AM to 6 PM.



Note: Excessive turbidity readings were recorded at the South Third Street Sentinel Buoy due to heavy rain events. No outlier turbidity readings above 20 NTU were detected.

3.4 Thursday, August 10, 2023

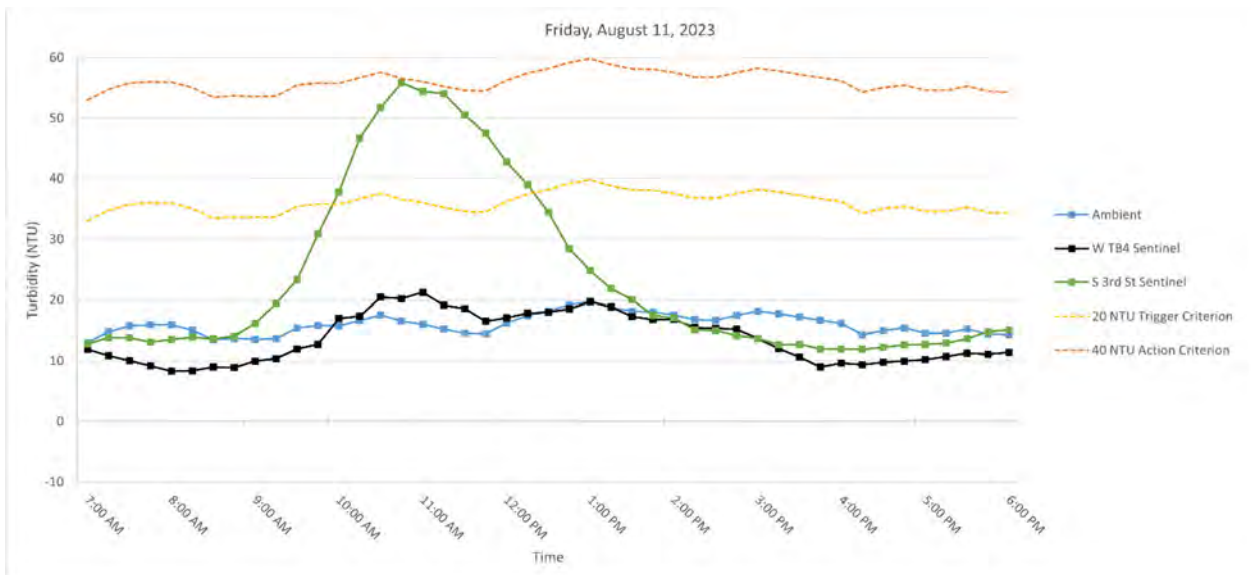
Figure 5. Hourly rolling average turbidity readings on Thursday, August 10, 2023, from 7 AM to 6 PM.



Note: Excessive turbidity readings were recorded at the South Third Street Sentinel Buoy and West TB4 Sentinel Buoy due to heavy rain events. An outlier turbidity reading above 20 NTU was detected at the Ambient Buoy.

3.5 Friday, August 11, 2023

Figure 6. Hourly rolling average turbidity readings on Friday, August 11, 2023, from 7 AM to 6 PM.



Note: Excessive turbidity readings were recorded at the South Third Street Sentinel Buoy due to heavy rain events.

4. DISSOLVED OXYGEN MONITORING DATA

Dissolved oxygen measured at the monitoring buoys throughout the reporting period is summarized below:

- Ambient
 - Average = 0.87 (+/-0.1) mg/L
 - Min = < 0.1 mg/L at multiple times throughout the reporting period
 - Max = 4.93 (+/-0.1) mg/L on Thursday August 10, 2023

- West Turning Basin 4 (W TB4)
 - Average = 1.20 (+/-0.1) mg/L
 - Min = < 0.1 mg/L at multiple times throughout the reporting period
 - Max = 5.38 (+/-0.1) mg/L on Thursday August 10, 2023

- South Third Street Bridge (S 3SB)
 - Average = 1.06 (+/-0.1) mg/L
 - Min = < 0.1 mg/L at multiple times throughout the reporting period
 - Max = 5.15 (+/-0.1) mg/L on Thursday August 10, 2023

- North Union Street Bridge (N USB)
 - Average = 0.25 (+/-0.1) mg/L
 - Min = < 0.1 mg/L at multiple times throughout the reporting period
 - Max = 0.60 (+/-0.1) mg/L on Thursday August 10, 2023

The average dissolved oxygen measured using the handheld unit at multiple additional locations along the Canal is summarized in the following table:

Date	Average Dissolved Oxygen Reading (mg/L)					
	659 Smith St	9th St Bridge	3rd St Bridge	Bond St	Union St	DeGraw St
8/9/2023	6.21	3.14	NM	0.167	0.205	0.408
8/10/2023	5.37	4.14	2.44	1.97	1.79	1.66
8/11/2023	4.88	0.99	NM	0.27	--	0.18
8/9/2023 - 8/10/2023	5.49	2.76	2.44	0.803	0.997	0.749

Table 2. Average dissolved oxygen measured using the handheld unit at multiple additional locations along the Canal. NM refers to ‘no measure’.

SUMMARY OF VISUAL OBSERVATIONS

Visual indications of elevated turbidity were periodically observed during the reporting period attributable to capping activities. No sheens attributable to in-canal work operations were observed above background conditions.

Elevated turbidity and occasional sheens were observed throughout the reporting period, being attributed to CSOs contributing high volumes of excess outflow into the canal during intense and sustained heavy rain events (as opposed to any work-related activities). Turbid and sheen discharges were observed during the reporting period from storm water outfalls, including from the high-level storm sewer pipe adjacent to OH-005.

Throughout the reporting period, a dark coloration of the water was observed in RTA1 and RTA2 suggesting a decrease in dissolved oxygen levels in the canal attributable to the loading of organic materials during CSO discharge events and urban runoff. EPA has been notified of the observation.

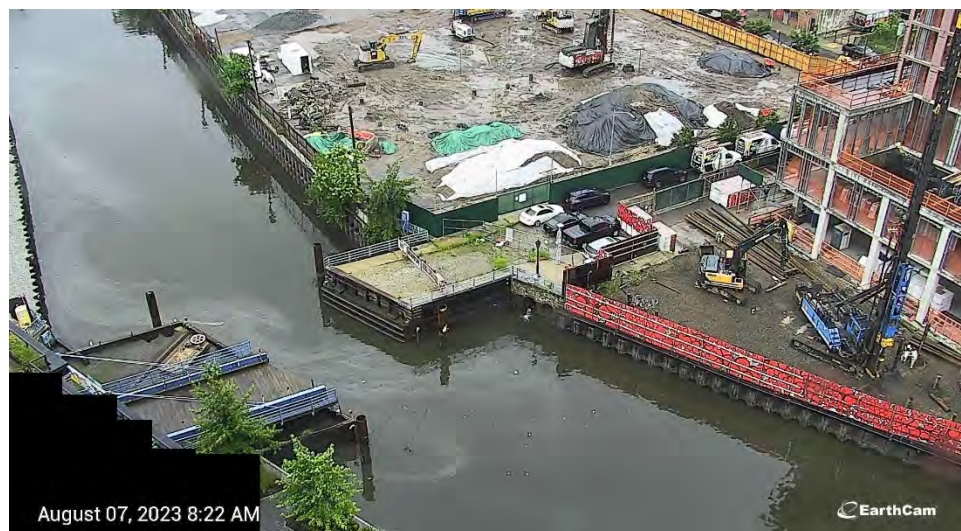


Figure 7. Sheen and turbid discharge from high level storm sewer pipe on August 7, 2023 at 8:15 AM.



Figure 8. Sheen and turbid discharge from high level storm sewer pipe on August 10, 2023 at 5:00 PM.

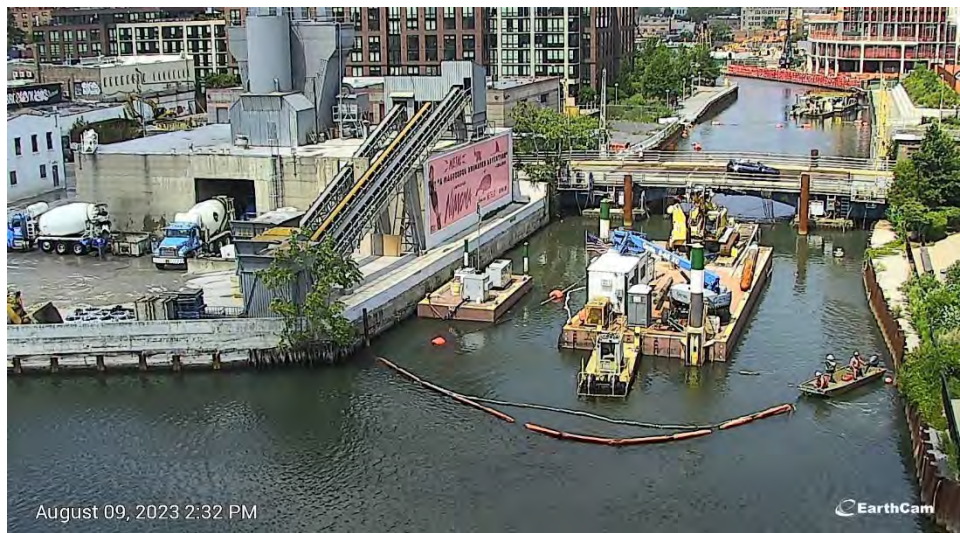


Figure 9. Deployment of turbidity curtain on August 9, 2023 at 2:30 PM.

APPENDIX A
Turbidity Data Tables

Monday, August 7, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	W TB4	S 3rd Street	Ambient	W TB4	S 3rd Street	W TB4 - Ambient	S 3rd St - Ambient
7:00:00	13.94	15.71	20.23	3.22	12.23	11.94	9.01	8.72
7:15:00	12.94	19.99	14.08	5.72	15.77	14.54	10.05	8.82
7:30:00	11.36	15.92	15.18	7.93	15.88	17.11	7.95	9.18
7:45:00	10.82	26.4	13.36	10.00	19.98	16.38	9.98	6.38
8:00:00	12.21	48.73	17.13	12.25	25.35	16.00	13.10	3.74
8:15:00	10.59	30	23.72	11.58	28.21	16.69	16.62	5.11
8:30:00	10.29	19.68	20.8	11.05	28.15	18.04	17.09	6.98
8:45:00	9.66	16.12	17.16	10.71	28.19	18.43	17.47	7.72
9:00:00	9.54	15.63	20.19	10.46	26.03	19.80	15.57	9.34
9:15:00	8.65	11.72	10.65	9.75	18.63	18.50	8.88	8.76
9:30:00	8.5	11.43	10.92	9.33	14.92	15.94	5.59	6.62
9:45:00	14.89	11.06	9.36	10.25	13.19	13.66	2.94	3.41
10:00:00	11.68	13.09	16.85	10.65	12.59	13.59	1.93	2.94
10:15:00	10.55	9.10	12.64	10.86	11.28	12.08	0.43	1.23
10:30:00	11.38	8.76	11.81	11.40	10.69	12.32	-0.71	0.92
10:45:00	12.21	10.03	15.67	12.14	10.41	13.27	-1.73	1.12
11:00:00	9.75	6.15	11.32	11.11	9.43	13.66	-1.69	2.54
11:15:00	11.27	7.52	17.20	11.03	8.31	13.73	-2.72	2.70
11:30:00	7.87	9.21	55.13	10.49	8.33	22.23	-2.16	11.73
11:45:00	10.12	10.48	32.60	10.24	8.68	26.38	-1.57	16.14
12:00:00	10.43	11.23	39.49	9.89	8.92	31.15	-0.97	21.26
12:15:00	9.18	11.84	71.15	9.77	10.05	43.11	0.28	33.34
12:30:00	10.11	--	42.46	9.54	10.69	48.17	1.15	38.62
12:45:00	9.96	10.06	45.43	9.96	10.90	46.23	0.94	36.27
13:00:00	8.60	14.86	45.49	9.66	12.00	48.81	2.34	39.15
13:15:00	9.25	23.81	38.18	9.42	15.14	48.54	5.72	39.12
13:30:00	8.74	22.50	30.50	9.33	17.81	40.41	8.47	31.08
13:45:00	7.30	29.78	30.50	8.77	20.20	38.02	11.43	29.25
14:00:00	8.20	25.48	31.22	8.42	23.29	35.18	14.87	26.76
14:15:00	8.30	18.22	35.28	8.36	23.96	33.14	15.60	24.78
14:30:00	7.46	13.37	27.12	8.00	21.87	30.92	13.87	22.92
14:45:00	6.89	19.64	26.11	7.63	21.30	30.05	13.67	22.42
15:00:00	11.38	21.16	24.70	8.45	19.58	28.88	11.13	20.44
15:15:00	--	16.13	25.39	8.51	17.70	27.72	9.20	19.21
15:30:00	6.52	15.68	17.98	8.06	17.20	24.26	9.13	16.20
15:45:00	7.83	18.70	17.04	8.15	18.26	22.24	10.11	14.09
16:00:00	7.93	13.03	15.27	8.41	16.94	20.08	8.53	11.66
16:15:00	6.35	12.05	14.60	7.15	15.12	18.06	7.96	10.90
16:30:00	5.18	--	17.33	6.76	14.86	16.44	8.10	9.68
16:45:00	4.60	12.89	13.26	6.38	14.17	15.50	7.79	9.12
17:00:00	5.15	9.85	6.95	5.84	11.96	13.48	6.12	7.64
17:15:00	4.84	5.16	11.94	5.22	9.99	12.82	4.77	7.59
17:30:00	4.49	12.34	14.52	4.85	10.06	12.80	5.21	7.95
17:45:00	3.55	12.62	10.84	4.53	10.57	11.50	6.05	6.98
18:00:00	4.72	16.98	10.74	4.55	11.39	11.00	6.84	6.45

Tuesday, August 8, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	W TB4	S 3rd Street	Ambient	W TB4	S 3rd Street	W TB4 - Ambient	S 3rd St - Ambient
7:00:00	6.95	5.59	10.32	6.27	6.01	9.02	-0.26	2.75
7:15:00	6.84	7.00	9.45	6.38	6.05	9.11	-0.33	2.73
7:30:00	7.29	5.20	7.43	6.78	5.88	8.69	-0.90	1.91
7:45:00	5.65	11.18	15.62	6.65	7.05	10.18	0.40	3.52
8:00:00	5.71	5.36	10.78	6.49	6.87	10.72	0.38	4.23
8:15:00	8.92	6.94	10.85	6.88	7.14	10.83	0.25	3.95
8:30:00	8.28	8.59	11.46	7.17	7.45	11.23	0.28	4.06
8:45:00	7.87	7.16	9.41	7.29	7.84	11.62	0.56	4.34
9:00:00	8.03	10.42	13.44	7.76	7.69	11.19	-0.07	3.42
9:15:00	7.33	9.11	9.40	8.09	8.44	10.91	0.36	2.82
9:30:00	9.89	9.90	9.50	8.28	9.04	10.64	0.76	2.36
9:45:00	8.47	10.50	7.24	8.32	9.42	9.80	1.10	1.48
10:00:00	9.74	9.86	8.21	8.69	9.96	9.56	1.27	0.86
10:15:00	11.17	9.70	8.25	9.32	9.81	8.52	0.49	-0.80
10:30:00	9.41	8.69	8.64	9.74	9.73	8.37	-0.01	-1.37
10:45:00	9.42	8.89	9.39	9.64	9.53	8.34	-0.12	-1.30
11:00:00	10.48	8.80	9.59	10.04	9.19	8.81	-0.86	-1.23
11:15:00	9.89	9.92	7.84	10.07	9.20	8.74	-0.87	-1.33
11:30:00	10.81	9.14	8.64	10.00	9.09	8.82	-0.91	-1.18
11:45:00	10.33	11.60	7.62	10.19	9.67	8.61	-0.51	-1.57
12:00:00	10.44	7.92	7.19	10.39	9.48	8.17	-0.91	-2.22
12:15:00	10.38	7.69	9.08	10.37	9.25	8.07	-1.12	-2.30
12:30:00	9.30	9.55	9.67	10.25	9.18	8.44	-1.07	-1.81
12:45:00	8.24	10.26	8.05	9.74	9.40	8.32	-0.33	-1.42
13:00:00	7.57	9.15	8.52	9.19	8.91	8.50	-0.27	-0.68
13:15:00	11.01	9.01	7.99	9.30	9.13	8.66	-0.17	-0.63
13:30:00	8.50	9.13	6.93	8.92	9.42	8.23	0.50	-0.69
13:45:00	7.30	12.53	24.56	8.52	10.01	11.21	1.49	2.69
14:00:00	7.86	15.54	28.03	8.45	11.07	15.21	2.62	6.76
14:15:00	10.07	22.15	22.05	8.95	13.67	17.91	4.72	8.96
14:30:00	9.66	12.03	35.25	8.68	14.28	23.36	5.60	14.68
14:45:00	9.61	11.92	22.14	8.90	14.84	26.40	5.93	17.50
15:00:00	9.31	13.78	27.13	9.30	15.09	26.92	5.78	17.62
15:15:00	10.48	24.92	20.07	9.83	16.96	25.33	7.13	15.50
15:30:00	7.76	11.13	19.37	9.37	14.76	24.79	5.39	15.43
15:45:00	10.15	18.02	22.47	9.46	15.95	22.24	6.49	12.77
16:00:00	8.19	18.89	14.00	9.18	17.35	20.61	8.17	11.43
16:15:00	9.28	12.50	18.97	9.17	17.09	18.98	7.92	9.80
16:30:00	8.78	15.52	17.98	8.83	15.21	18.56	6.38	9.73
16:45:00	9.50	13.24	13.23	9.18	15.63	17.33	6.45	8.15
17:00:00	10.02	12.02	13.03	9.15	14.43	15.44	5.28	6.29
17:15:00	9.83	16.00	12.47	9.48	13.85	15.14	4.37	5.66
17:30:00	10.13	16.52	12.05	9.65	14.66	13.75	5.01	4.10
17:45:00	8.89	15.50	11.04	9.67	14.66	12.37	4.98	2.69
18:00:00	8.66	12.93	9.55	9.51	14.59	11.63	5.09	2.12

Wednesday, August 9, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	W TB4	S 3rd Street	Ambient	W TB4	S 3rd Street	W TB4 - Ambient	S 3rd St - Ambient
7:00:00	12.63	4.99	3.82	9.70	5.19	3.50	-4.51	-6.20
7:15:00	11.58	9.06	3.88	10.33	6.12	3.71	-4.21	-6.62
7:30:00	9.22	5.44	4.91	10.46	6.21	4.12	-4.25	-6.34
7:45:00	9.11	5.14	5.78	10.52	5.90	4.44	-4.61	-6.08
8:00:00	9.63	9.02	8.09	10.44	6.73	5.30	-3.70	-5.14
8:15:00	9.63	12.90	7.33	9.83	8.31	6.00	-1.52	-3.84
8:30:00	8.27	11.17	5.51	9.17	8.73	6.32	-0.44	-2.85
8:45:00	7.35	10.73	6.66	8.80	9.79	6.67	0.99	-2.13
9:00:00	8.70	9.71	8.20	8.72	10.71	7.16	1.99	-1.56
9:15:00	9.54	6.18	11.44	8.70	10.14	7.83	1.44	-0.87
9:30:00	9.40	10.25	12.30	8.65	9.61	8.82	0.96	0.17
9:45:00	8.34	11.08	8.20	8.67	9.59	9.36	0.92	0.69
10:00:00	7.40	13.74	8.37	8.68	10.19	9.70	1.52	1.02
10:15:00	7.69	16.63	11.83	8.47	11.58	10.43	3.10	1.95
10:30:00	7.12	20.92	29.90	7.99	14.53	14.12	6.54	6.13
10:45:00	6.34	17.14	25.16	7.38	15.90	16.69	8.52	9.32
11:00:00	5.98	16.32	16.07	6.90	16.95	18.27	10.05	11.36
11:15:00	6.52	15.89	15.86	6.73	17.38	19.77	10.65	13.04
11:30:00	8.23	11.81	12.24	6.84	16.42	19.85	9.58	13.01
11:45:00	12.88	9.67	10.21	7.99	14.16	15.91	6.17	7.92
12:00:00	14.82	7.23	6.24	9.69	12.18	12.13	2.50	2.44
12:15:00	12.52	8.86	6.21	10.99	10.69	10.15	-0.30	-0.84
12:30:00	14.26	11.10	4.54	12.54	9.73	7.89	-2.81	-4.65
12:45:00	13.80	5.77	4.66	13.66	8.53	6.37	-5.13	-7.28
13:00:00	15.43	4.75	4.97	14.17	7.55	5.33	-6.62	-8.84
13:15:00	11.99	4.99	5.11	13.60	7.10	5.10	-6.51	-8.50
13:30:00	14.37	4.24	5.31	13.97	6.17	4.92	-7.80	-9.05
13:45:00	11.85	8.54	6.72	13.49	5.66	5.36	-7.83	-8.13
14:00:00	11.84	6.79	4.75	13.10	5.86	5.37	-7.24	-7.72
14:15:00	13.31	7.13	1.85	12.67	6.34	4.75	-6.34	-7.92
14:30:00	11.97	3.22	2.34	12.67	5.98	4.20	-6.69	-8.47
14:45:00	10.50	4.42	3.67	11.89	6.02	3.87	-5.87	-8.03
15:00:00	9.43	4.56	2.44	11.41	5.22	3.01	-6.18	-8.40
15:15:00	8.45	4.79	2.57	10.73	4.83	2.58	-5.91	-8.16
15:30:00	8.34	4.19	2.42	9.74	4.24	2.69	-5.50	-7.05
15:45:00	9.06	4.98	18.87	9.15	4.59	6.00	-4.56	-3.16
16:00:00	8.82	4.97	7.72	8.82	4.70	6.81	-4.12	-2.01
16:15:00	7.33	7.23	9.35	8.40	5.23	8.19	-3.17	-0.21
16:30:00	9.05	5.08	23.97	8.52	5.29	12.47	-3.23	3.95
16:45:00	7.95	7.19	22.66	8.44	5.89	16.52	-2.55	8.07
17:00:00	9.48	33.12	61.04	8.53	11.52	24.95	2.99	16.42
17:15:00	7.75	19.70	42.30	8.31	14.46	31.86	6.15	23.55
17:30:00	6.51	27.77	37.57	8.15	18.57	37.51	10.42	29.36
17:45:00	6.93	16.82	44.75	7.72	20.92	41.66	13.19	33.94
18:00:00	7.29	37.94	48.79	7.59	27.07	46.89	19.48	39.29

Thursday, August 10, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	W TB4	S 3rd Street	Ambient	W TB4	S 3rd Street	W TB4 - Ambient	S 3rd St - Ambient
7:00:00	2.68	4.36	2.19	2.64	3.71	3.27	1.07	0.63
7:15:00	3.17	6.38	2.30	2.73	4.31	2.92	1.58	0.19
7:30:00	4.05	4.47	3.85	2.99	4.51	3.33	1.52	0.33
7:45:00	3.78	8.07	2.54	3.27	5.39	3.20	2.12	-0.07
8:00:00	4.36	4.76	2.82	3.61	5.61	2.74	2.00	-0.87
8:15:00	4.36	3.72	2.77	3.94	5.48	2.86	1.54	-1.09
8:30:00	4.12	5.52	5.45	4.13	5.31	3.49	1.17	-0.65
8:45:00	4.69	3.45	4.95	4.26	5.10	3.71	0.84	-0.56
9:00:00	4.37	11.67	16.08	4.38	5.82	6.41	1.44	2.03
9:15:00	5.57	6.88	27.70	4.63	6.25	11.39	1.62	6.77
9:30:00	6.98	5.36	21.58	5.15	6.58	15.15	1.43	10.00
9:45:00	5.89	3.89	12.74	5.50	6.25	16.61	0.75	11.11
10:00:00	5.32	8.09	33.66	5.63	7.18	22.35	1.55	16.73
10:15:00	5.71	9.64	23.02	5.89	6.77	23.74	0.88	17.85
10:30:00	5.45	9.84	24.73	5.87	7.36	23.15	1.49	17.28
10:45:00	6.08	5.99	27.53	5.69	7.49	24.34	1.80	18.65
11:00:00	4.99	5.33	32.49	5.51	7.78	28.29	2.27	22.78
11:15:00	5.55	6.70	8.72	5.56	7.50	23.30	1.94	17.74
11:30:00	5.41	6.03	11.66	5.50	6.78	21.03	1.28	15.53
11:45:00	4.37	7.34	6.98	5.28	6.28	17.48	1.00	12.20
12:00:00	5.24	4.86	2.48	5.11	6.05	12.47	0.94	7.36
12:15:00	4.56	4.47	8.41	5.02	5.88	7.65	0.86	2.63
12:30:00	9.45	7.07	5.00	5.80	5.96	6.91	0.15	1.10
12:45:00	8.23	3.96	3.76	6.37	5.54	5.33	-0.83	-1.04
13:00:00	8.23	4.11	4.69	7.14	4.90	4.87	-2.24	-2.27
13:15:00	6.78	4.23	5.79	7.45	4.77	5.53	-2.68	-1.92
13:30:00	8.95	3.35	3.44	8.33	4.55	4.54	-3.78	-3.79
13:45:00	6.71	3.50	3.44	7.78	3.83	4.22	-3.95	-3.55
14:00:00	--	2.97	1.71	7.67	3.63	3.81	-4.03	-3.85
14:15:00	7.90	3.09	2.43	7.58	3.43	3.36	-4.16	-4.22
14:30:00	6.22	3.60	4.03	7.44	3.30	3.01	-4.14	-4.43
14:45:00	6.94	4.67	5.45	6.94	3.56	3.41	-3.38	-3.53
15:00:00	7.16	4.57	4.15	7.05	3.78	3.56	-3.27	-3.50
15:15:00	6.46	3.31	7.80	6.94	3.85	4.77	-3.09	-2.16
15:30:00	6.83	4.33	6.49	6.72	4.10	5.59	-2.63	-1.14
15:45:00	5.78	4.62	13.05	6.63	4.30	7.39	-2.33	0.75
16:00:00	5.83	7.41	18.42	6.41	4.85	9.98	-1.56	3.57
16:15:00	5.00	20.26	31.28	5.98	7.99	15.41	2.01	9.43
16:30:00	5.22	29.13	21.90	5.73	13.15	18.23	7.42	12.49
16:45:00	6.55	22.52	26.07	5.68	16.79	22.14	11.11	16.46
17:00:00	5.49	138.46	46.32	5.62	43.55	28.80	37.94	23.18
17:15:00	39.06	85.78	84.27	12.26	59.23	41.97	46.96	29.70
17:30:00	47.48	54.67	58.28	20.76	66.11	47.37	45.35	26.61
17:45:00	45.97	37.37	50.75	28.91	67.76	53.14	38.85	24.23
18:00:00	32.66	39.68	46.08	34.13	71.19	57.14	37.06	23.01

Friday, August 11, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	W TB4	S 3rd Street	Ambient	W TB4	S 3rd Street	W TB4 - Ambient	S 3rd St - Ambient
7:00:00	15.03	9.68	13.15	13.01	11.88	12.77	-1.12	-0.23
7:15:00	20.81	8.23	15.61	14.76	10.84	13.85	-3.92	-0.91
7:30:00	17.06	7.35	13.49	15.78	9.99	13.79	-5.79	-1.99
7:45:00	13.61	8.44	11.92	15.97	9.17	13.09	-6.80	-2.88
8:00:00	13.23	7.65	13.43	15.95	8.27	13.52	-7.67	-2.43
8:15:00	10.60	10.27	14.92	15.06	8.39	13.88	-6.67	-1.18
8:30:00	12.84	11.28	14.32	13.47	9.00	13.62	-4.47	0.15
8:45:00	18.27	6.88	15.70	13.71	8.91	14.06	-4.80	0.35
9:00:00	13.00	13.72	22.60	13.59	9.96	16.20	-3.62	2.61
9:15:00	13.56	9.85	29.64	13.65	10.40	19.44	-3.25	5.78
9:30:00	19.58	18.22	34.21	15.45	11.99	23.29	-3.46	7.84
9:45:00	14.66	14.98	52.08	15.82	12.73	30.85	-3.09	15.03
10:00:00	18.00	28.15	50.45	15.76	16.98	37.80	1.22	22.04
10:15:00	17.59	15.66	67.16	16.68	17.37	46.71	0.69	30.03
10:30:00	17.97	25.34	54.84	17.56	20.47	51.75	2.91	34.19
10:45:00	14.55	17.01	54.69	16.55	20.23	55.85	3.67	39.29
11:00:00	12.08	20.04	44.71	16.04	21.24	54.37	5.20	38.33
11:15:00	14.05	17.62	48.86	15.25	19.14	54.05	3.89	38.80
11:30:00	14.21	13.19	49.70	14.57	18.64	50.56	4.07	35.99
11:45:00	17.48	14.73	39.36	14.48	16.52	47.46	2.05	32.99
12:00:00	23.31	19.79	31.34	16.23	17.08	42.80	0.85	26.57
12:15:00	18.10	23.89	25.82	17.43	17.85	39.02	0.41	21.59
12:30:00	17.82	18.45	26.14	18.19	18.01	34.47	-0.17	16.29
12:45:00	19.09	15.87	19.40	19.16	18.55	28.42	-0.61	9.25
13:00:00	20.73	20.54	21.41	19.81	19.71	24.82	-0.10	5.01
13:15:00	18.35	15.64	16.50	18.82	18.88	21.86	0.06	3.04
13:30:00	14.72	16.15	16.66	18.14	17.33	20.02	-0.81	1.88
13:45:00	17.45	15.74	13.44	18.07	16.79	17.48	-1.28	-0.58
14:00:00	16.42	16.24	17.32	17.53	16.86	17.07	-0.67	-0.47
14:15:00	17.05	13.66	11.74	16.80	15.49	15.13	-1.31	-1.66
14:30:00	18.00	15.23	15.83	16.73	15.40	15.00	-1.32	-1.73
14:45:00	18.66	--	12.45	17.51	15.22	14.16	-2.30	-3.36
15:00:00	20.92	9.69	11.28	18.21	13.71	13.72	-4.50	-4.49
15:15:00	14.38	9.48	12.09	17.80	12.02	12.68	-5.79	-5.12
15:30:00	14.05	7.99	11.92	17.20	10.60	12.71	-6.60	-4.49
15:45:00	15.51	8.75	12.12	16.70	8.98	11.97	-7.73	-4.73
16:00:00	16.07	12.35	12.36	16.19	9.65	11.95	-6.54	-4.23
16:15:00	11.56	8.29	11.02	14.31	9.37	11.90	-4.94	-2.41
16:30:00	18.00	11.40	13.93	15.04	9.76	12.27	-5.28	-2.77
16:45:00	15.97	9.02	13.77	15.42	9.96	12.64	-5.46	-2.78
17:00:00	11.42	9.84	12.47	14.60	10.18	12.71	-4.42	-1.89
17:15:00	16.06	14.93	13.41	14.60	10.70	12.92	-3.90	-1.68
17:30:00	14.91	11.26	14.74	15.27	11.29	13.66	-3.98	-1.61
17:45:00	13.74	10.47	19.78	14.42	11.10	14.83	-3.32	0.41
18:00:00	15.37	10.52	15.09	14.30	11.40	15.10	-2.90	0.80