

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

**PERIOD: May 1 – May 5, 2023**

**Date of Report: May 9, 2023**

## **Report Contents**

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*Prepared by*

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Project Number JR0289A

## **1. SCOPE OF MONITORING**

### **1.1 Current Buoy Locations**

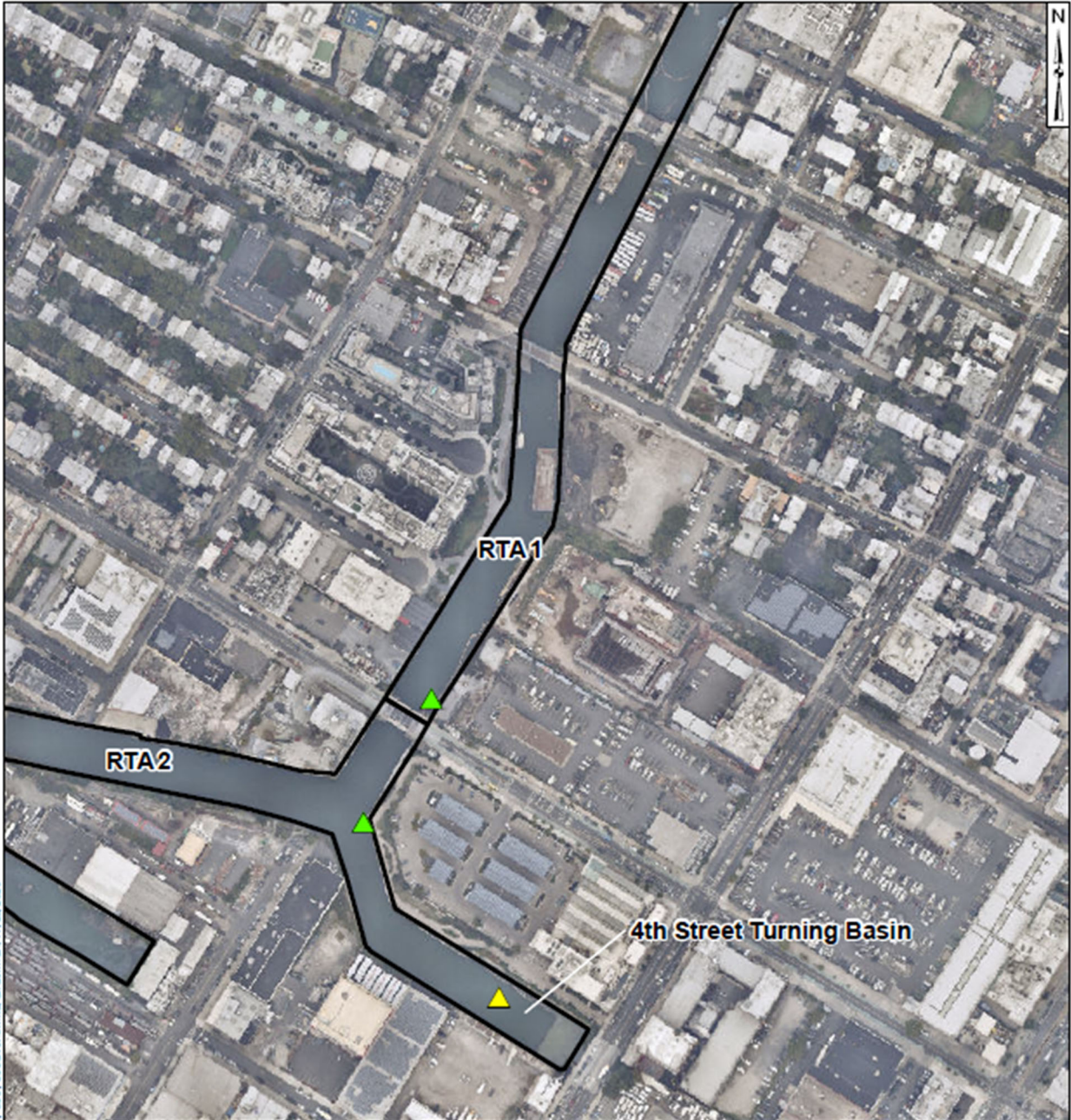
The following report summarizes water quality monitoring data collected during the week of May 1, 2023. In accordance with the Water Quality Monitoring Plan for In-waterway Construction Activities (WQMP) three turbidity buoys were deployed to monitor turbidity related to dredging activities. One turbidity buoy was deployed just south of the 3<sup>rd</sup> Street Bridge outside of the air curtain and traditional turbidity curtain and is referred to as the 3<sup>rd</sup> 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 is referred to as the Carroll Street Sentinel Buoy. The third turbidity buoy was deployed in the Fourth Street Turning Basin in order to monitor background turbidity unaffected by in-water construction activities and is 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. No handheld measurements were collected during this reporting period. Visual observations of turbidity and sheen are summarized in Section 4.

### **1.2 Previous Buoy Locations**

- 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 3<sup>rd</sup> 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.

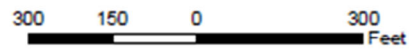
- On January 9, 2023, the Carroll Street Sentinel Buoy was moved to the Third Street Bridge location and renamed the Third Street Sentinel Buoy. Additionally, the former Third Street Sentinel Buoy was removed from the canal for servicing.
- On February 6, 2023, the newly serviced Third Street Sentinel 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.
- 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.
- The Ambient Buoy was removed from service on Thursday, April 25, 2023, due to power failure. An investigation into the cause of the fault and the appropriate repairs is ongoing.



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**Legend**

- ▲ Ambient Buoy
- ▲ Sentinel Buoy
- RTA Boundary



**Turbidity Buoy Locations**

Gowanus Canal, Brooklyn, NY

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

*an affiliate of Geosyntec Consultants*

Brooklyn, NY

May 2023

Figure

**1**

## 2. REPORT OF EXCEEDANCES

No exceedances due to remedial construction-related activities 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 due to remedial construction-related activities to the quantitative trigger or action criteria were observed during the reporting period.

### 3. TURBIDITY BUOY DATA

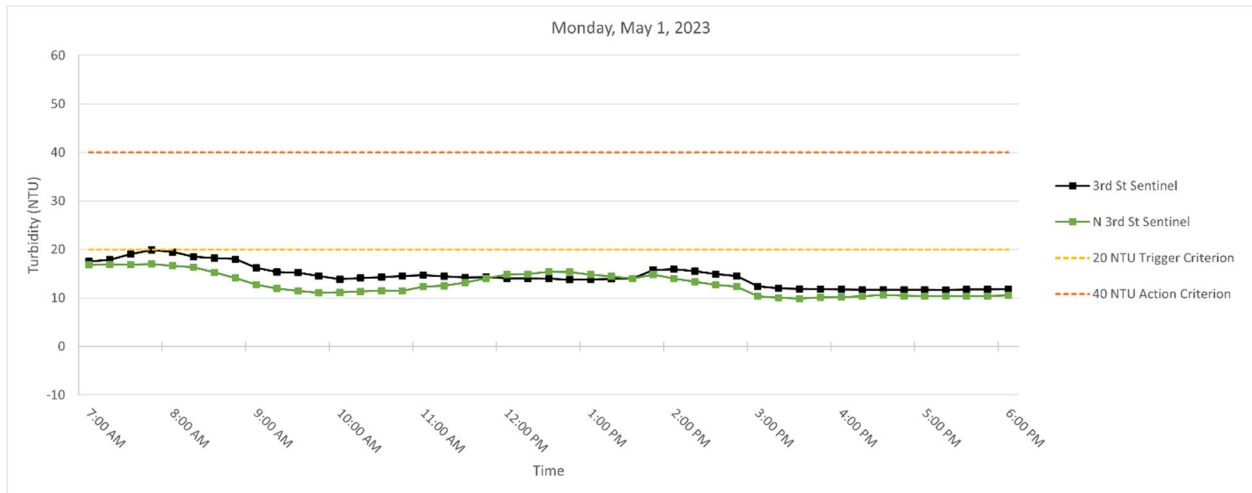
The following section provides turbidity data for the sentinel and ambient turbidity buoys from 7 AM to 6 PM from May 1 – May 5, 2023.

No exceedances due to remedial construction-related activities to the quantitative trigger or action criteria were observed during the reporting period.

Data from the Ambient Buoy was not reported during the reporting period due to a power failure preventing transmission of readings. The buoy was removed from service on Thursday, April 25, 2023. An investigation into the cause of the fault and the appropriate repairs is ongoing.

#### 3.1 Monday, May 1, 2023

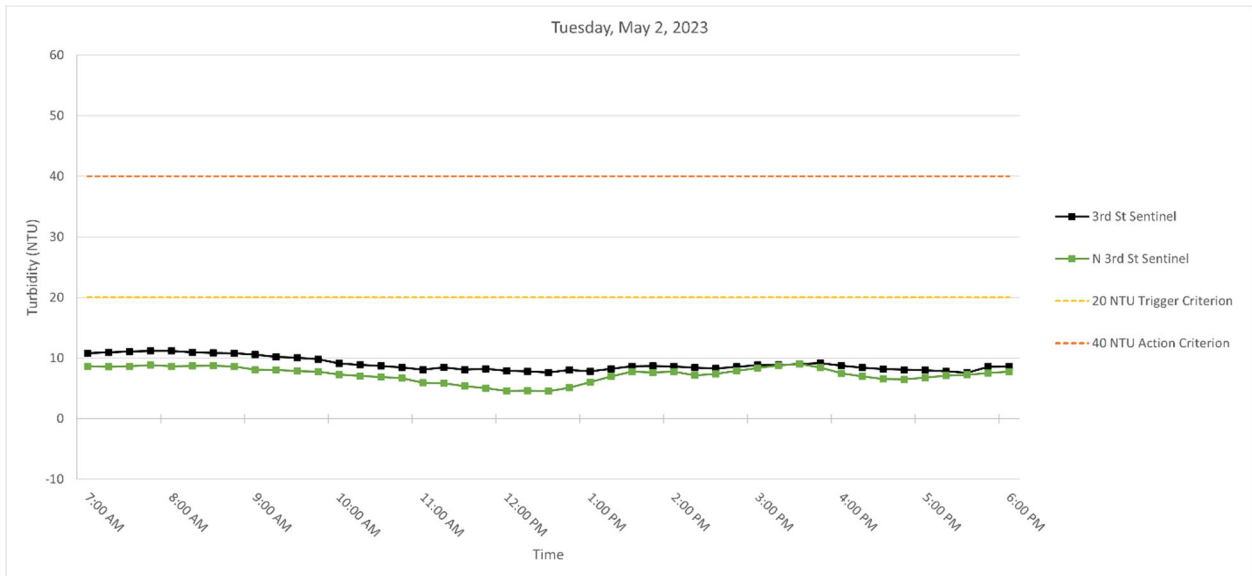
**Figure 3.** Hourly rolling average turbidity readings on Monday, May 1, 2023, from 7 AM to 6 PM.



**Note:** Excessive turbidity readings were recorded at the 3<sup>rd</sup> Street and North 3<sup>rd</sup> Street Sentinel Buoys due to an intense and sustained rain event. Data from the Ambient Buoy was not reported due to a power failure preventing transmission of readings.

### 3.2 Tuesday, May 2, 2023

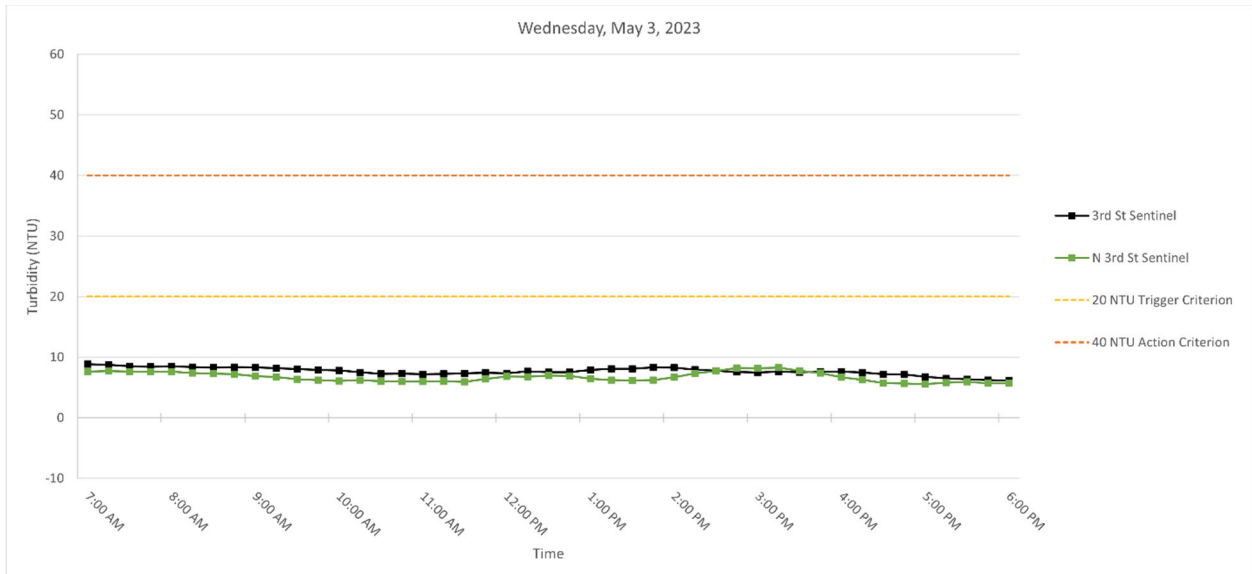
**Figure 3.** Hourly rolling average turbidity readings on Tuesday, May 2, 2023, from 7 AM to 6 PM.



**Note:** No outlier turbidity readings above 20 NTU were detected. Data from the Ambient Buoy was not reported due to a power failure preventing transmission of readings.

### 3.3 Wednesday, May 3, 2023

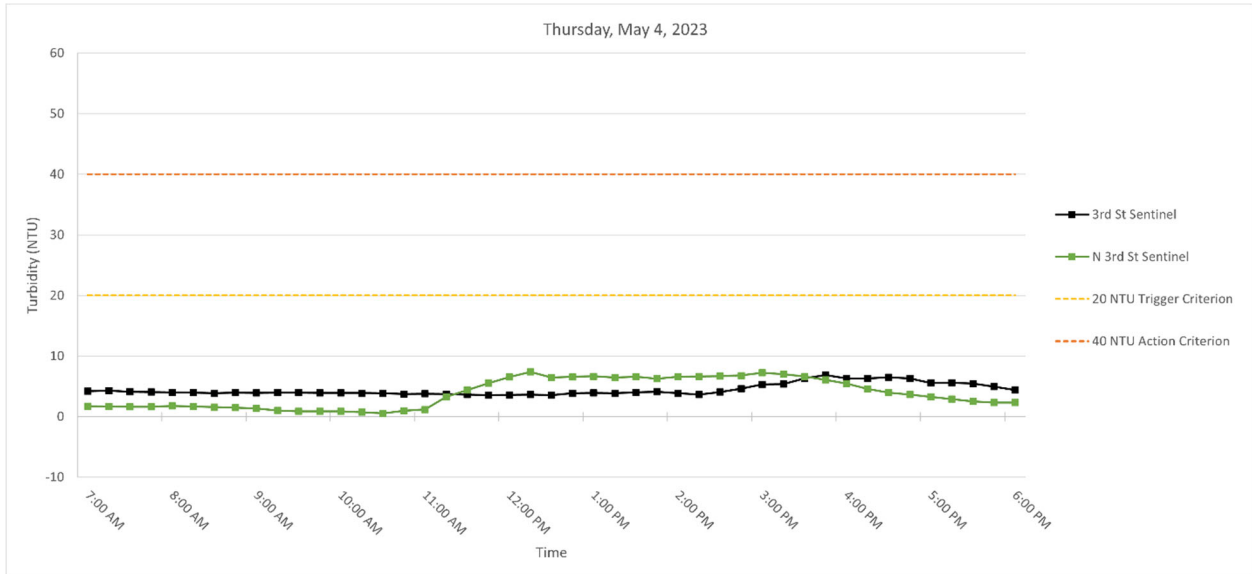
**Figure 4.** Hourly rolling average turbidity readings on Wednesday, May 3, 2023, from 7 AM to 6 PM.



**Note:** No outlier turbidity readings above 20 NTU were detected. Data from the Ambient Buoy was not reported due to a power failure preventing transmission of readings.

### 3.4 Thursday, May 4, 2023

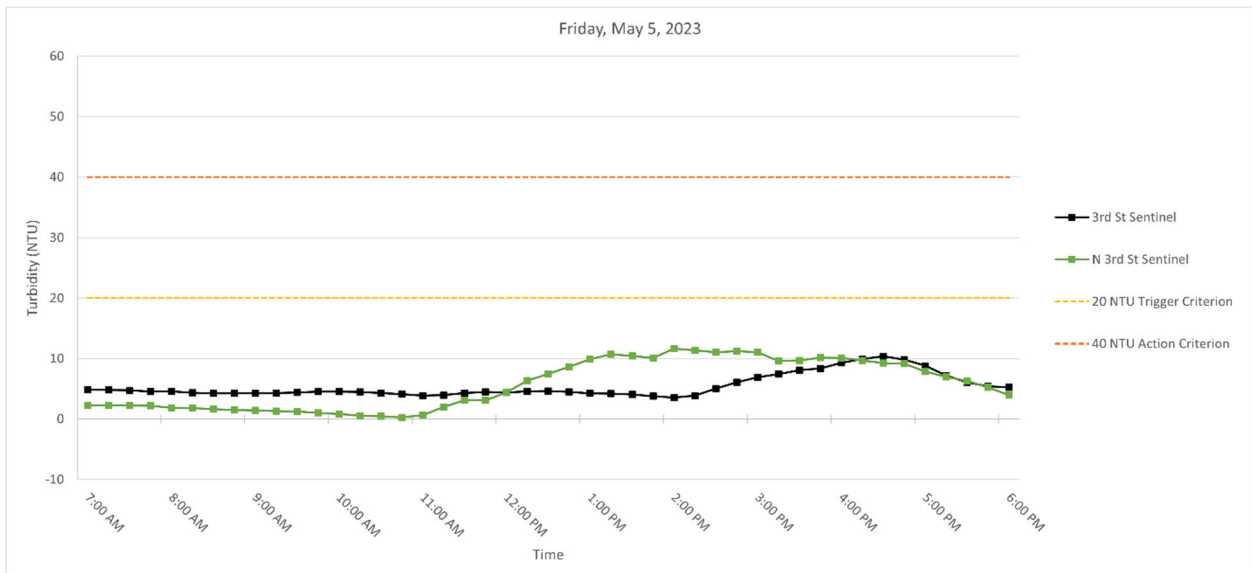
**Figure 5.** Hourly rolling average turbidity readings on Thursday, May 4, 2023, from 7 AM to 6 PM.



**Note:** No outlier turbidity readings above 20 NTU were detected. Data from the Ambient Buoy was not reported due to a power failure preventing transmission of readings.

### 3.5 Friday, May 5, 2023

**Figure 6.** Hourly rolling average turbidity readings on Friday, May 5, 2023, from 7 AM to 6 PM.



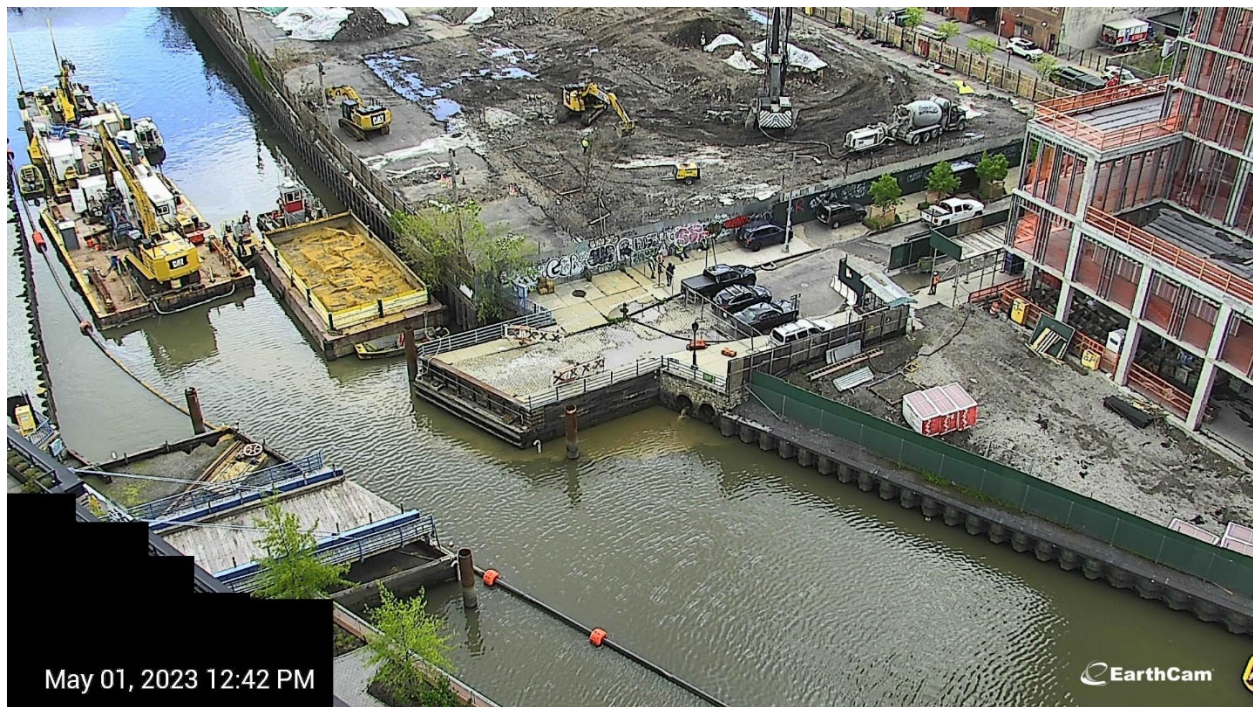
**Note:** No outlier turbidity readings above 20 NTU were detected. Data from the Ambient Buoy was not reported due to a power failure preventing transmission of readings.



## 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. Turbid discharges were observed during the reporting period from storm water outfalls, including from the high-level storm sewer pipe adjacent to OH-005.

Photographs depicting conditions relevant to these events are shown below.



**Figure 7.** Turbid discharge from high level storm sewer pipe on May 1, 2023 at 12:45 PM.

**APPENDIX A**  
**Turbidity Data Tables**

## Monday, May 1, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	3rd Street	N 3rd Street	Ambient	3rd Street	N 3rd Street	3rd St - Ambient	N 3rd St - Ambient
7:00:00	--	19.73	15.74	--	17.53	16.82	--	--
7:15:00	--	18.5	17.15	--	17.89	16.91	--	--
7:30:00	--	18.92	17.06	--	19.02	16.87	--	--
7:45:00	--	23.1	17.7	--	19.90	16.99	--	--
8:00:00	--	17.21	15.43	--	19.49	16.62	--	--
8:15:00	--	14.86	14.28	--	18.52	16.32	--	--
8:30:00	--	16.94	12.02	--	18.21	15.30	--	--
8:45:00	--	18	11.05	--	18.02	14.10	--	--
9:00:00	--	14.06	11.16	--	16.21	12.79	--	--
9:15:00	--	12.97	11.07	--	15.37	11.92	--	--
9:30:00	--	14.05	12.18	--	15.20	11.50	--	--
9:45:00	--	13.44	9.81	--	14.50	11.05	--	--
10:00:00	--	14.86	11.78	--	13.88	11.20	--	--
10:15:00	--	15.18	11.96	--	14.10	11.36	--	--
10:30:00	--	14	11.81	--	14.31	11.51	--	--
10:45:00	--	15.26	11.95	--	14.55	11.46	--	--
11:00:00	--	14.26	14.23	--	14.71	12.35	--	--
11:15:00	--	13.54	12.53	--	14.45	12.50	--	--
11:30:00	--	14.2	15.23	--	14.25	13.15	--	--
11:45:00	--	14.15	16.28	--	14.28	14.04	--	--
12:00:00	--	14.16	15.71	--	14.06	14.80	--	--
12:15:00	--	14.18	14.79	--	14.05	14.91	--	--
12:30:00	--	13.23	15.16	--	13.98	15.43	--	--
12:45:00	--	13.03	14.73	--	13.75	15.33	--	--
13:00:00	--	14.45	13.8	--	13.81	14.84	--	--
13:15:00	--	14.86	13.95	--	13.95	14.49	--	--
13:30:00	--	14.28	12.23	--	13.97	13.97	--	--
13:45:00	--	22.24	19.42	--	15.77	14.83	--	--
14:00:00	--	13.81	10.54	--	15.93	13.99	--	--
14:15:00	--	12.42	10.73	--	15.52	13.37	--	--
14:30:00	--	12.01	10.63	--	14.95	12.71	--	--
14:45:00	--	12.13	10.45	--	14.52	12.35	--	--
15:00:00	--	11.59	9.35	--	12.39	10.34	--	--
15:15:00	--	11.96	9.26	--	12.02	10.08	--	--
15:30:00	--	11.59	9.78	--	11.86	9.89	--	--
15:45:00	--	11.92	11.71	--	11.84	10.11	--	--
16:00:00	--	11.75	10.77	--	11.76	10.17	--	--
16:15:00	--	11.34	10.23	--	11.71	10.35	--	--
16:30:00	--	11.9	10.68	--	11.70	10.63	--	--
16:45:00	--	11.51	8.81	--	11.68	10.44	--	--
17:00:00	--	12.12	11.54	--	11.72	10.41	--	--
17:15:00	--	11.48	10.86	--	11.67	10.42	--	--
17:30:00	--	11.69	10.09	--	11.74	10.40	--	--
17:45:00	--	11.95	10.68	--	11.75	10.40	--	--
18:00:00	--	11.9	9.46	--	11.83	10.53	--	--

## Tuesday, May 2, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	3rd Street	N 3rd Street	Ambient	3rd Street	N 3rd Street	3rd St - Ambient	N 3rd St - Ambient
7:00:00	--	12	8.55	--	10.81	8.66	--	--
7:15:00	--	11.16	8.57	--	10.93	8.56	--	--
7:30:00	--	10.77	8.68	--	11.06	8.66	--	--
7:45:00	--	10.7	9.83	--	11.20	8.85	--	--
8:00:00	--	11.28	7.69	--	11.18	8.66	--	--
8:15:00	--	10.79	8.79	--	10.94	8.71	--	--
8:30:00	--	10.77	8.71	--	10.86	8.74	--	--
8:45:00	--	10.56	8	--	10.82	8.60	--	--
9:00:00	--	9.53	7.33	--	10.59	8.10	--	--
9:15:00	--	9.27	7.41	--	10.18	8.05	--	--
9:30:00	--	10.09	7.88	--	10.04	7.87	--	--
9:45:00	--	9.65	8.09	--	9.82	7.74	--	--
10:00:00	--	7.04	5.64	--	9.12	7.27	--	--
10:15:00	--	8.46	6.21	--	8.90	7.05	--	--
10:30:00	--	8.36	6.59	--	8.72	6.88	--	--
10:45:00	--	8.7	6.83	--	8.44	6.67	--	--
11:00:00	--	7.97	4.49	--	8.11	5.95	--	--
11:15:00	--	8.82	5.04	--	8.46	5.83	--	--
11:30:00	--	6.53	3.96	--	8.08	5.38	--	--
11:45:00	--	9.03	4.96	--	8.21	5.06	--	--
12:00:00	--	7.13	4.43	--	7.90	4.58	--	--
12:15:00	--	7.56	4.85	--	7.81	4.65	--	--
12:30:00	--	7.91	--	--	7.63	4.55	--	--
12:45:00	--	8.69	6.15	--	8.06	5.10	--	--
13:00:00	--	--	8.61	--	7.82	6.01	--	--
13:15:00	--	8.75	8.33	--	8.23	6.99	--	--
13:30:00	--	9.24	8.01	--	8.65	7.78	--	--
13:45:00	--	8.17	6.92	--	8.71	7.60	--	--
14:00:00	--	8.31	6.96	--	8.62	7.77	--	--
14:15:00	--	7.65	5.59	--	8.42	7.16	--	--
14:30:00	--	7.94	9.55	--	8.26	7.41	--	--
14:45:00	--	10.63	10.48	--	8.54	7.90	--	--
15:00:00	--	9.65	9.24	--	8.84	8.36	--	--
15:15:00	--	8.22	9.18	--	8.82	8.81	--	--
15:30:00	--	8.67	6.7	--	9.02	9.03	--	--
15:45:00	--	8.73	6.47	--	9.18	8.41	--	--
16:00:00	--	8.46	5.72	--	8.75	7.46	--	--
16:15:00	--	7.97	6.68	--	8.41	6.95	--	--
16:30:00	--	6.99	7.09	--	8.16	6.53	--	--
16:45:00	--	8.18	6.57	--	8.07	6.51	--	--
17:00:00	--	8.28	7.76	--	7.98	6.76	--	--
17:15:00	--	7.66	7.35	--	7.82	7.09	--	--
17:30:00	--	6.82	7.48	--	7.59	7.25	--	--
17:45:00	--	11.84	8.51	--	8.56	7.53	--	--
18:00:00	--	8.34	7.81	--	8.59	7.78	--	--

### Wednesday, May 3, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	3rd Street	N 3rd Street	Ambient	3rd Street	N 3rd Street	3rd St - Ambient	N 3rd St - Ambient
7:00:00	--	8.89	8.41	--	8.82	7.63	--	--
7:15:00	--	8.45	7.54	--	8.72	7.72	--	--
7:30:00	--	7.67	7.2	--	8.50	7.64	--	--
7:45:00	--	8.59	7.79	--	8.41	7.63	--	--
8:00:00	--	8.88	7.18	--	8.50	7.62	--	--
8:15:00	--	8.28	7.33	--	8.37	7.41	--	--
8:30:00	--	7.96	6.92	--	8.28	7.28	--	--
8:45:00	--	8.08	6.83	--	8.36	7.21	--	--
9:00:00	--	8.48	6.08	--	8.34	6.87	--	--
9:15:00	--	8.08	6.5	--	8.18	6.73	--	--
9:30:00	--	7.69	5.53	--	8.06	6.37	--	--
9:45:00	--	7.14	6.22	--	7.89	6.23	--	--
10:00:00	--	7.55	5.96	--	7.79	6.06	--	--
10:15:00	--	7.07	6.8	--	7.51	6.20	--	--
10:30:00	--	6.8	5.69	--	7.25	6.04	--	--
10:45:00	--	7.97	5.3	--	7.31	5.99	--	--
11:00:00	--	6.64	6.09	--	7.21	5.97	--	--
11:15:00	--	7.67	6.3	--	7.23	6.04	--	--
11:30:00	--	7.51	6.26	--	7.32	5.93	--	--
11:45:00	--	7.3	7.98	--	7.42	6.39	--	--
12:00:00	--	7.48	7.57	--	7.32	6.84	--	--
12:15:00	--	8.44	5.73	--	7.68	6.77	--	--
12:30:00	--	6.99	7.38	--	7.54	6.98	--	--
12:45:00	--	7.52	5.94	--	7.55	6.92	--	--
13:00:00	--	9.07	5.7	--	7.90	6.46	--	--
13:15:00	--	8.52	6.33	--	8.11	6.22	--	--
13:30:00	--	8.39	5.58	--	8.10	6.19	--	--
13:45:00	--	8.21	7.47	--	8.34	6.20	--	--
14:00:00	--	7.17	8.35	--	8.27	6.69	--	--
14:15:00	--	7.52	8.94	--	7.96	7.33	--	--
14:30:00	--	7.61	8.15	--	7.78	7.70	--	--
14:45:00	--	7.27	8.29	--	7.56	8.24	--	--
15:00:00	--	7.75	7.12	--	7.46	8.17	--	--
15:15:00	--	8.07	9	--	7.64	8.30	--	--
15:30:00	--	6.91	6.2	--	7.52	7.75	--	--
15:45:00	--	8.16	6.32	--	7.63	7.39	--	--
16:00:00	--	7.32	4.75	--	7.64	6.68	--	--
16:15:00	--	6.92	5.07	--	7.48	6.27	--	--
16:30:00	--	6.65	6.37	--	7.19	5.74	--	--
16:45:00	--	6.75	5.82	--	7.16	5.67	--	--
17:00:00	--	6.26	5.71	--	6.78	5.54	--	--
17:15:00	--	5.89	5.91	--	6.49	5.78	--	--
17:30:00	--	6.16	5.96	--	6.34	5.95	--	--
17:45:00	--	5.97	5.11	--	6.21	5.70	--	--
18:00:00	--	6.24	5.87	--	6.10	5.71	--	--

## Thursday, May 4, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	3rd Street	N 3rd Street	Ambient	3rd Street	N 3rd Street	3rd St - Ambient	N 3rd St - Ambient
7:00:00	--	4.03	1.79	--	4.20	1.73	--	--
7:15:00	--	4.27	1.42	--	4.28	1.65	--	--
7:30:00	--	3.75	1.59	--	4.12	1.64	--	--
7:45:00	--	4.11	1.69	--	4.05	1.62	--	--
8:00:00	--	3.8	2.35	--	3.99	1.77	--	--
8:15:00	--	3.87	1.3	--	3.96	1.67	--	--
8:30:00	--	3.9	0.97	--	3.89	1.58	--	--
8:45:00	--	4.14	1.09	--	3.96	1.48	--	--
9:00:00	--	3.84	0.89	--	3.91	1.32	--	--
9:15:00	--	3.96	0.92	--	3.94	1.03	--	--
9:30:00	--	4.02	0.6	--	3.97	0.89	--	--
9:45:00	--	3.67	0.94	--	3.93	0.89	--	--
10:00:00	--	4.02	0.91	--	3.90	0.85	--	--
10:15:00	--	3.8	0.28	--	3.89	0.73	--	--
10:30:00	--	3.75	0.01	--	3.85	0.55	--	--
10:45:00	--	3.5	2.62	--	3.75	0.95	--	--
11:00:00	--	3.74	2.07	--	3.76	1.18	--	--
11:15:00	--	3.8	11.33	--	3.72	3.26	--	--
11:30:00	--	3.46	5.96	--	3.65	4.40	--	--
11:45:00	--	3.29	5.66	--	3.56	5.53	--	--
12:00:00	--	3.57	7.74	--	3.57	6.55	--	--
12:15:00	--	4.14	6.14	--	3.65	7.37	--	--
12:30:00	--	3.19	6.77	--	3.53	6.45	--	--
12:45:00	--	5.05	6.5	--	3.85	6.56	--	--
13:00:00	--	3.7	6.13	--	3.93	6.66	--	--
13:15:00	--	3.38	6.69	--	3.89	6.45	--	--
13:30:00	--	4.84	6.75	--	4.03	6.57	--	--
13:45:00	--	3.47	5.32	--	4.09	6.28	--	--
14:00:00	--	--	7.93	--	3.85	6.56	--	--
14:15:00	--	2.81	6.5	--	3.63	6.64	--	--
14:30:00	--	5.05	7	--	4.04	6.70	--	--
14:45:00	--	7.07	7.23	--	4.60	6.80	--	--
15:00:00	--	6.27	7.63	--	5.30	7.26	--	--
15:15:00	--	5.59	6.64	--	5.36	7.00	--	--
15:30:00	--	7.6	4.63	--	6.32	6.63	--	--
15:45:00	--	7.8	4.22	--	6.87	6.07	--	--
16:00:00	--	4.35	4.1	--	6.32	5.44	--	--
16:15:00	--	6.11	3.28	--	6.29	4.57	--	--
16:30:00	--	6.59	3.68	--	6.49	3.98	--	--
16:45:00	--	6.74	2.93	--	6.32	3.64	--	--
17:00:00	--	4.06	2.38	--	5.57	3.27	--	--
17:15:00	--	4.55	2.06	--	5.61	2.87	--	--
17:30:00	--	5.25	1.49	--	5.44	2.51	--	--
17:45:00	--	4.24	2.66	--	4.97	2.30	--	--
18:00:00	--	3.79	2.99	--	4.38	2.32	--	--

## Friday, May 5, 2023

Time	Turbidity (NTU)			Rolling Average Turbidity (NTU)			Difference (NTU)	
	Ambient	3rd Street	N 3rd Street	Ambient	3rd Street	N 3rd Street	3rd St - Ambient	N 3rd St - Ambient
7:00:00	--	5.24	1.92	--	4.85	2.25	--	--
7:15:00	--	4.51	2.24	--	4.81	2.28	--	--
7:30:00	--	4.32	1.86	--	4.74	2.24	--	--
7:45:00	--	3.99	1.86	--	4.54	2.19	--	--
8:00:00	--	4.76	1.54	--	4.56	1.88	--	--
8:15:00	--	4.24	1.5	--	4.36	1.80	--	--
8:30:00	--	4.03	1.44	--	4.27	1.64	--	--
8:45:00	--	4.22	1.21	--	4.25	1.51	--	--
9:00:00	--	4.22	1.58	--	4.29	1.45	--	--
9:15:00	--	4.67	0.87	--	4.28	1.32	--	--
9:30:00	--	4.83	1.07	--	4.39	1.23	--	--
9:45:00	--	4.66	0.29	--	4.52	1.00	--	--
10:00:00	--	4.21	0.37	--	4.52	0.84	--	--
10:15:00	--	3.97	0.17	--	4.47	0.55	--	--
10:30:00	--	3.87	--	--	4.31	0.48	--	--
10:45:00	--	3.78	0.33	--	4.10	0.29	--	--
11:00:00	--	3.63	1.77	--	3.89	0.66	--	--
11:15:00	--	4.49	5.77	--	3.95	2.01	--	--
11:30:00	--	5.61	4.61	--	4.28	3.12	--	--
11:45:00	--	4.93	3	--	4.49	3.10	--	--
12:00:00	--	3.34	7	--	4.40	4.43	--	--
12:15:00	--	4.42	11.31	--	4.56	6.34	--	--
12:30:00	--	4.87	11.44	--	4.63	7.47	--	--
12:45:00	--	4.83	10.48	--	4.48	8.65	--	--
13:00:00	--	3.79	9.34	--	4.25	9.91	--	--
13:15:00	--	3.16	10.91	--	4.21	10.70	--	--
13:30:00	--	3.72	9.99	--	4.07	10.43	--	--
13:45:00	--	3.51	9.78	--	3.80	10.10	--	--
14:00:00	--	3.64	18.23	--	3.56	11.65	--	--
14:15:00	--	5.44	8.02	--	3.89	11.39	--	--
14:30:00	--	8.84	9.21	--	5.03	11.05	--	--
14:45:00	--	8.88	10.91	--	6.06	11.23	--	--
15:00:00	--	7.91	8.92	--	6.94	11.06	--	--
15:15:00	--	6.01	10.96	--	7.42	9.60	--	--
15:30:00	--	8.79	8.43	--	8.09	9.69	--	--
15:45:00	--	10.28	11.48	--	8.37	10.14	--	--
16:00:00	--	13.49	10.81	--	9.30	10.12	--	--
16:15:00	--	10.96	6.77	--	9.91	9.69	--	--
16:30:00	--	8.49	8.71	--	10.40	9.24	--	--
16:45:00	--	5.79	8.14	--	9.80	9.18	--	--
17:00:00	--	5.35	4.93	--	8.82	7.87	--	--
17:15:00	--	5.49	6.19	--	7.22	6.95	--	--
17:30:00	--	5.17	3.53	--	6.06	6.30	--	--
17:45:00	--	5.39	3.4	--	5.44	5.24	--	--
18:00:00	--	4.71	1.91	--	5.22	3.99	--	--