

**GOWANUS CANAL SUPERFUND SITE  
RTA2 REMEDIAL CONSTRUCTION  
Water Quality Monitoring Weekly Data Summary**

**PERIOD: November 18, 2024 – November 22, 2024**

**Date of Report: November 26, 2024**

## **Report Contents**

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## **1. SCOPE OF MONITORING**

### **1.1 Buoy Locations**

In accordance with the Water Quality Monitoring Plan for In-waterway Construction Activities (WQMP) issued March 27, 2024, buoys equipped with multi-parameter water quality sondes, were deployed to monitor turbidity related to RTA2 construction activities. Buoys were deployed in the Fourth Street Turning Basin (TB4) to monitor background turbidity unaffected by in-water construction activities and at the North Carroll Street Bridge, which is referred to as the ambient buoy. A sentinel buoy was deployed north of 3<sup>rd</sup> Street Bridge (3SB), along the west bulkhead. These buoys (Figure 1) are in use to monitor the RTA2 pre-construction activities.

All readings from buoys were transmitted via telemetry at 15-minute intervals. The instrument used to collect turbidity from the buoys is an In-Situ VuLink (telemetry) and AquaTroll500 (sonde), equipped with optical sensors capable of reading turbidity levels with an accuracy of +/- 0.5 NTU.

### **1.2 Summary of Monitoring Adjustments during Construction**

- August 9, 2024, after the conclusion of RTA1 WQMP, two additional buoys were added to the RTA2 WQMP, for a total of three sentinel buoys. The ambient buoy was moved to approximately ten meters north of Carroll Street Bridge, on the west side of the canal (ambient). A sentinel buoy was placed approximately twenty meters north of 3<sup>rd</sup> Street Bridge on the west side (3SB). A sentinel buoy was placed in Fourth Street Turning Basin (TB4). The 9<sup>th</sup> Street Bridge sentinel buoy (9SB) was not moved.
- To reduce instrument downtime, the 9th Street Bridge sentinel buoy (9SB) was relocated to the northeast side of the 9th Street Bridge on August 19, 2024. After two days of data collection, elevated turbidity readings were observed both during and outside of work hours. Consequently, on August 21, 2024, the buoy was moved again, this time to the northeast corner of the Hamilton Street Bridge.
- Turbidity readings at the Hamilton Street Bridge location exceeded 100 NTU both during and outside working hours. However, these readings were not representative of the actual turbidity within the RTA2 work area. Due to commercial traffic, a safe location for the sonde and buoy could not be found south of the 9th Street Bridge. Consequently, the sonde and buoy were relocated to the west side, 5 meters north of the 9th Street Bridge on Tuesday, August 27, 2024, at 08:15.
- Turbidity readings at 9SB were noted to be erratic and exceed 100 NTU both during and outside working hours. The buoy was moved approximately 20 meters north of 9<sup>th</sup> Street Bridge on Monday, September 9, 2024.
- On September 16, 2024, the 9SB was deselected from construction monitoring, as there are no construction activities in the main canal or in the vicinity of 9<sup>th</sup> Street Bridge. The

buoy will remain in the water to collect background data as it is believed this area has naturally high NTU readings. A spot check zero calibration was performed on the buoy on Wednesday, September 18, 2024 to confirm the sensors were reading properly during this background monitoring period.

- On November 7, 2024, the ambient sonde and buoy was moved to the center of Carroll Street Bridge in an effort to reduce instrument downtime due to poor cell signal. This area was found to have a 100% cellular signal.



X:\08\_GIS\4\PR01\_Canal\_Wide\A

#### Legend

- Ambient Buoy
- Sentinel Buoy
- ▮ RTA1
- ▮ RTA2
- ▮ RTA3

300 150 0 300  
Feet

#### RTA2 Buoy Locations

Gowanus Canal, Brooklyn, NY

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Brooklyn, NY

November 8, 2024

Figure

1

### 1.3 Current Reporting Period Scope of Monitoring

During the week of November 18, 2024, three buoys equipped with multi-parameter water quality sondes were deployed as described in Section 1.2.

Cleaning of the buoy and sonde at Turing Basin 4 station (TB4) occurred before work activities began on Monday, November 18, 2024. Readings from TB4 were observed to be erratic throughout each 24-hour cycle for all 5 reporting days and do not coincide with cleaning or construction activities. These readings were determined to be erroneous and therefore excluded from this reporting period while maintenance is performed on the sonde

All readings from buoys were transmitted via telemetry at 15-minute intervals. The instrument used to collect turbidity and DO from the buoys is an In-Situ VuLink (telemetry) and AquaTroll500 (sonde), equipped with optical sensors capable of reading turbidity levels with an accuracy of +/-0.5 NTU and DO levels with an accuracy of +/-0.1 mg/L.

Visual observations of turbidity and sheen are summarized in Section 5.

### 1.4 Meteorological Conditions

The weather conditions onsite were as follows:

Table 1 - Summary of Weather Conditions for reporting period.

| Meteorological Parameters         | 11/18/2024 | 11/19/2024 | 11/20/2024 | 11/21/2024 | 11/22/2024 |
|-----------------------------------|------------|------------|------------|------------|------------|
| <i>Wind Direction (from)</i>      | WNW        | W          | SE         | N          | WSW        |
| <i>Wind Speed (mph)</i>           | 5.5        | 3.8        | 4.1        | 7.5        | 11.7       |
| <i>Temperature (°F)</i>           | 56.7       | 52.9       | 55.2       | 46.6       | 38.8       |
| <i>Humidity (%)</i>               | 51.5       | 57.3       | 65.8       | 94.1       | 88.0       |
| <i>Barometric Pressure (inHg)</i> | 29.78      | 29.82      | 29.66      | 29.42      | 29.28      |

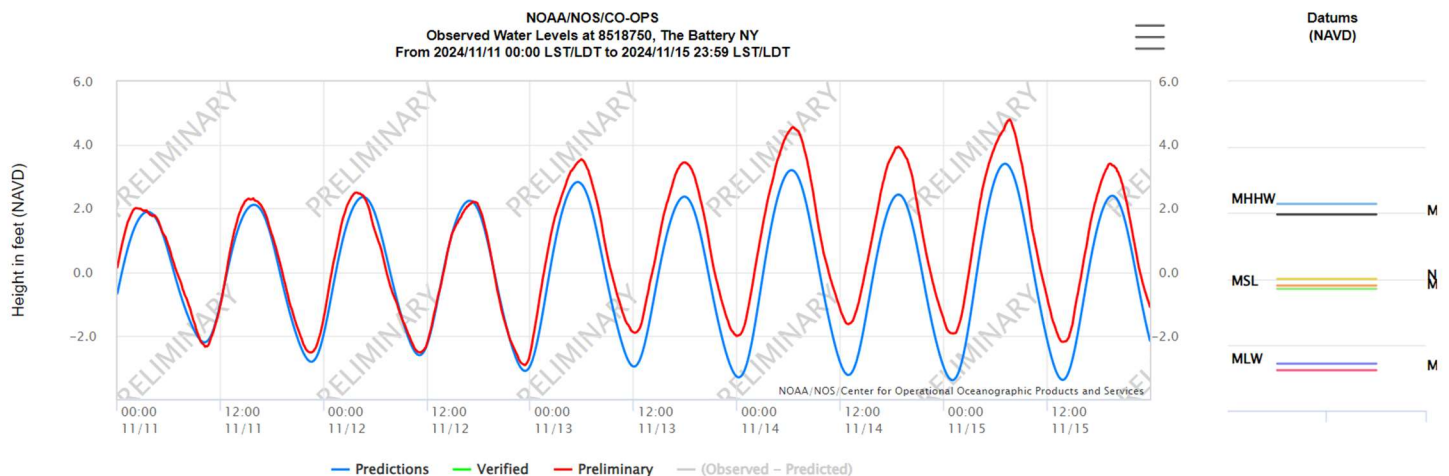
|                                 |   |   |   |     |     |
|---------------------------------|---|---|---|-----|-----|
| <i>Precipitation<br/>(Inch)</i> | 0 | 0 | 0 | 0.8 | 0.9 |
|---------------------------------|---|---|---|-----|-----|

## 1.5 Tidal Conditions

Tidal data from the Battery (National Oceanic and Atmospheric Administration [NOAA] Station 8518750) was reviewed and is summarized as follows:

| Date       | Time<br>(LST/LDT) | Predicted<br>(ft) | Preliminary<br>(ft) | High/Low |
|------------|-------------------|-------------------|---------------------|----------|
| 11/18/2024 | 3:26              | -2.97             | -2.22               | L        |
| 11/18/2024 | 9:31              | 2.92              | 3.62                | H        |
| 11/18/2024 | 16:17             | -3.12             | -2.25               | L        |
| 11/18/2024 | 22:15             | 1.78              | 2.35                | H        |
| 11/19/2024 | 4:14              | -2.63             | -2.15               | L        |
| 11/19/2024 | 10:27             | 2.56              | 3.36                | H        |
| 11/19/2024 | 17:08             | -2.82             | -1.94               | L        |
| 11/19/2024 | 23:16             | 1.56              | 2.49                | H        |
| 11/20/2024 | 5:04              | -2.25             | -1.33               | L        |
| 11/20/2024 | 11:27             | 2.21              | 3.3                 | H        |
| 11/20/2024 | 18:02             | -2.51             | -1.33               | L        |
| 11/21/2024 | 0:15              | 1.41              | 3.22                | H        |
| 11/21/2024 | 6:00              | -1.89             | -0.7                | L        |
| 11/21/2024 | 12:26             | 1.92              | 3.69                | H        |
| 11/21/2024 | 19:02             | -2.27             | -0.93               | L        |
| 11/22/2024 | 1:11              | 1.33              | 2.59                | H        |
| 11/22/2024 | 7:04              | -1.63             | -1.1                | L        |
| 11/22/2024 | 1:20 PM           | 1.67              | 2.47                | H        |
| 11/22/2024 | 8:01 PM           | -2.13             | -0.99               | L        |

**Table 2 - NOAA Preliminary observations and predictions.**



**Figure 2 - Tidal Chart for reporting period.**

## **2. REPORT OF EXCEEDANCES**

No readings exceeded the trigger or action criterion during the monitoring period.

Elevated readings were noted in RTA1 and RTA2 during the rainfall events on Thursday November 21. CSO discharges were noted in RTA1 and RTA2 during Thursday and Friday.

Turbidity and floatables were observed throughout the reporting period unrelated to construction activities.

- **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 RTA2 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 RTA2, 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

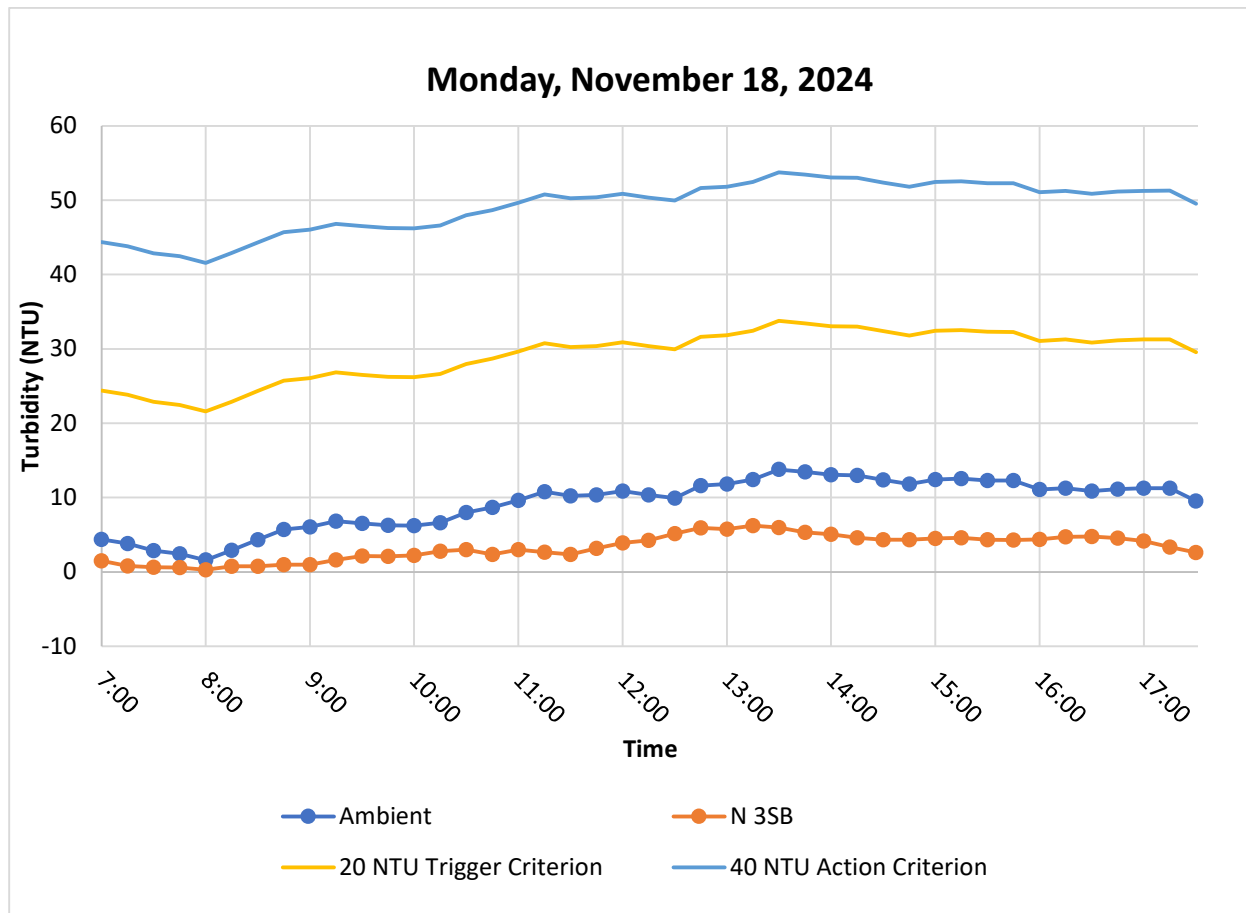


description of responses to exceedances of the trigger and action level criteria is provided in Section 4.2 of the WQMP.

### 3. TURBIDITY BUOY DATA

Throughout the reporting period, readings at the Ambient and 3SB sondes remained relatively stable until the rainfall event on Thursday November 21.

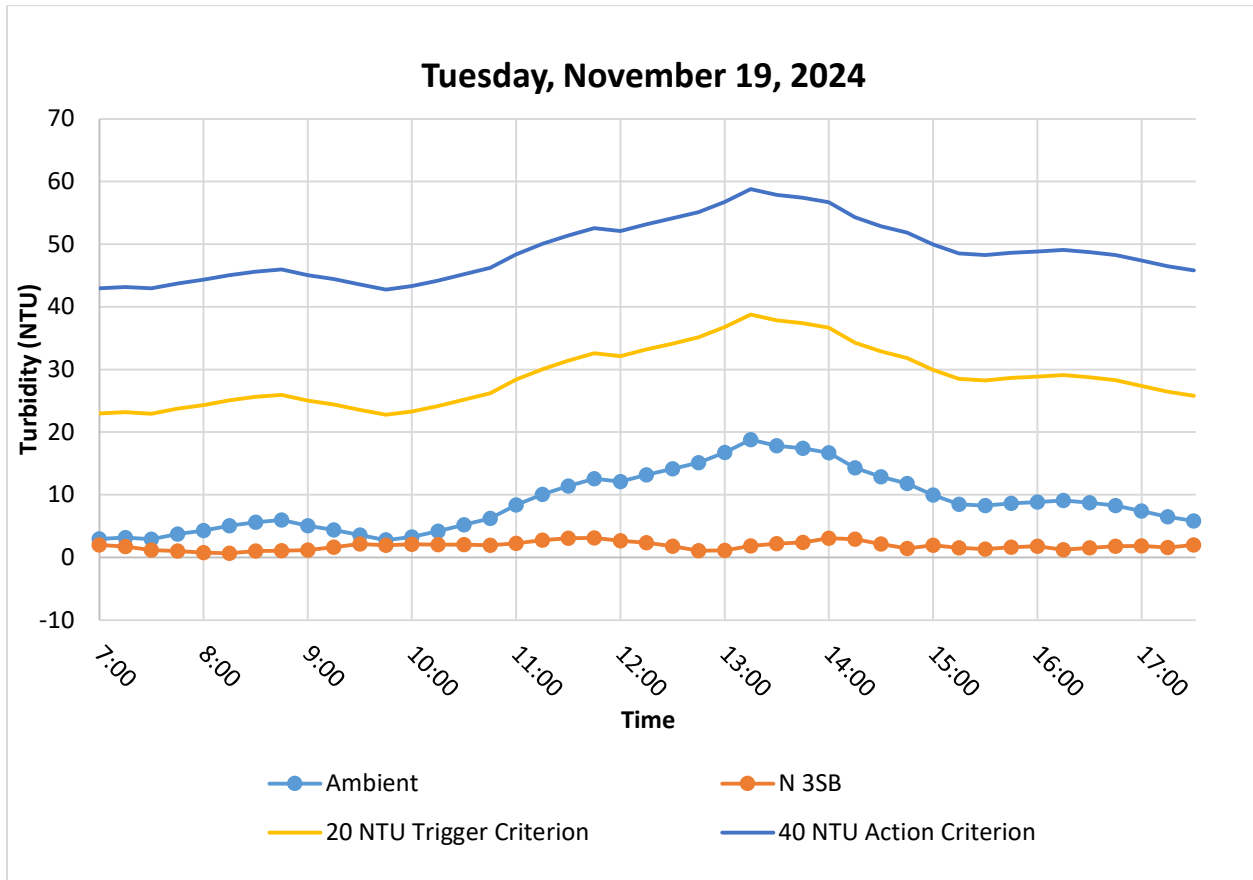
#### 3.1 Monday, November 18, 2024



**Figure 3.** Hourly rolling average turbidity readings from 07:00 to 17:30.

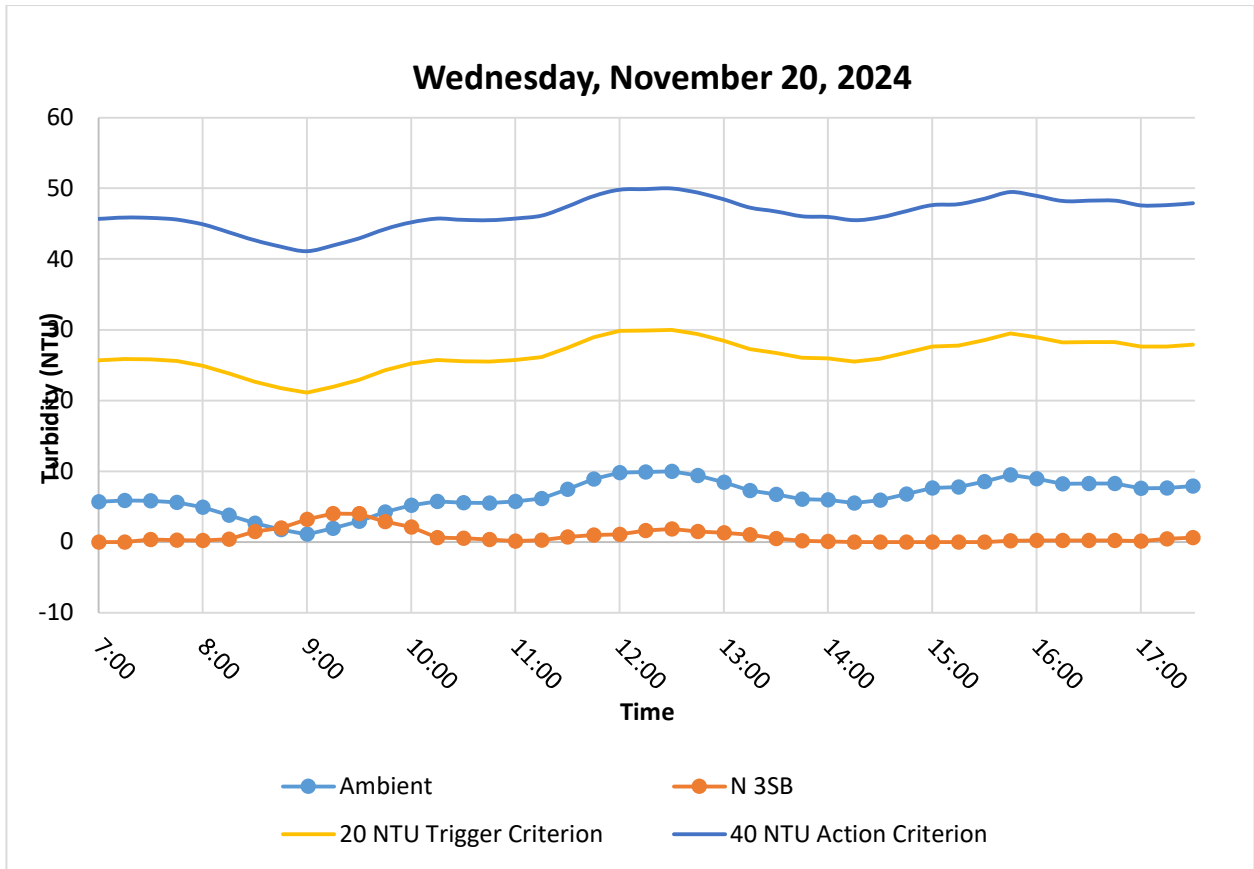


### 3.2 Tuesday, November 19, 2024



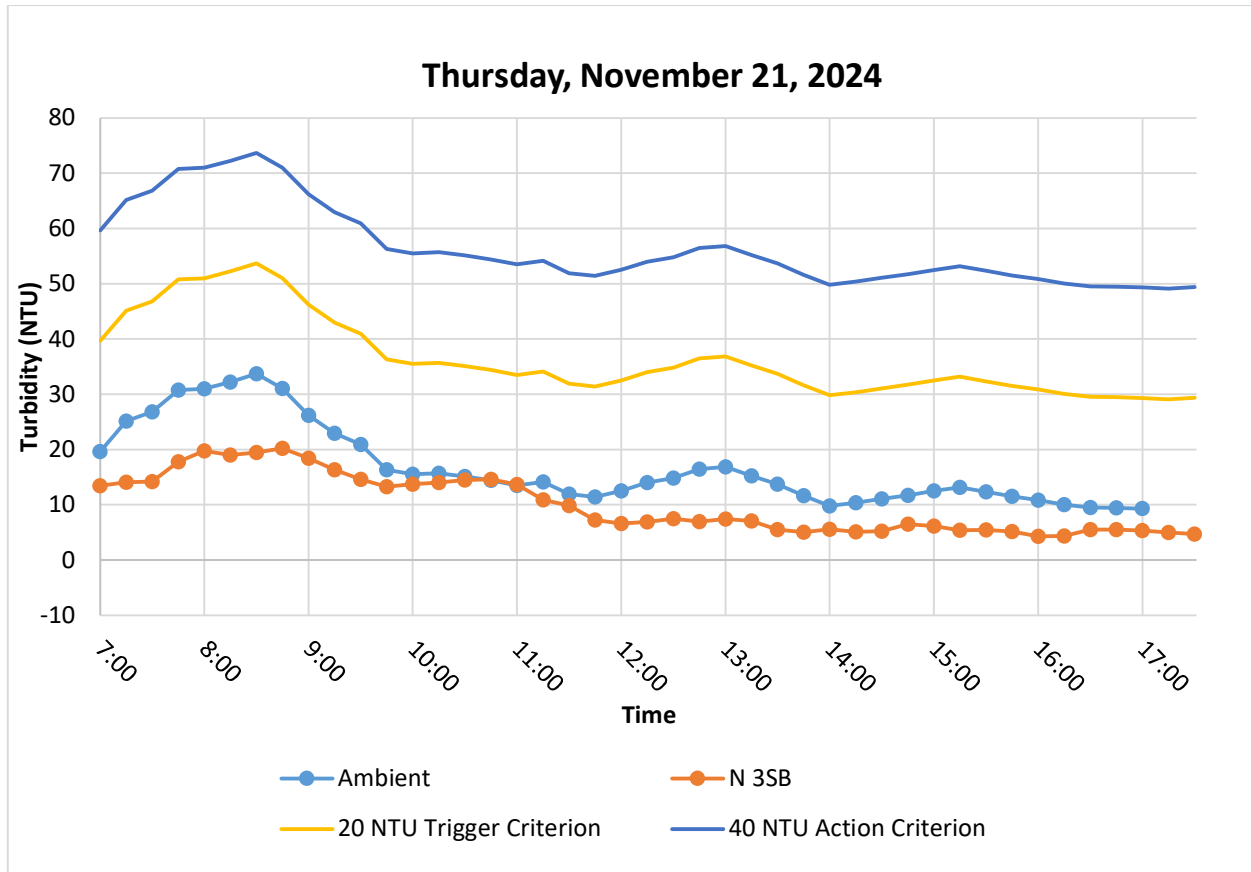
**Figure 4.** Hourly rolling average turbidity readings from 07:00 to 17:30.

### 3.3 Wednesday, November 20, 2024



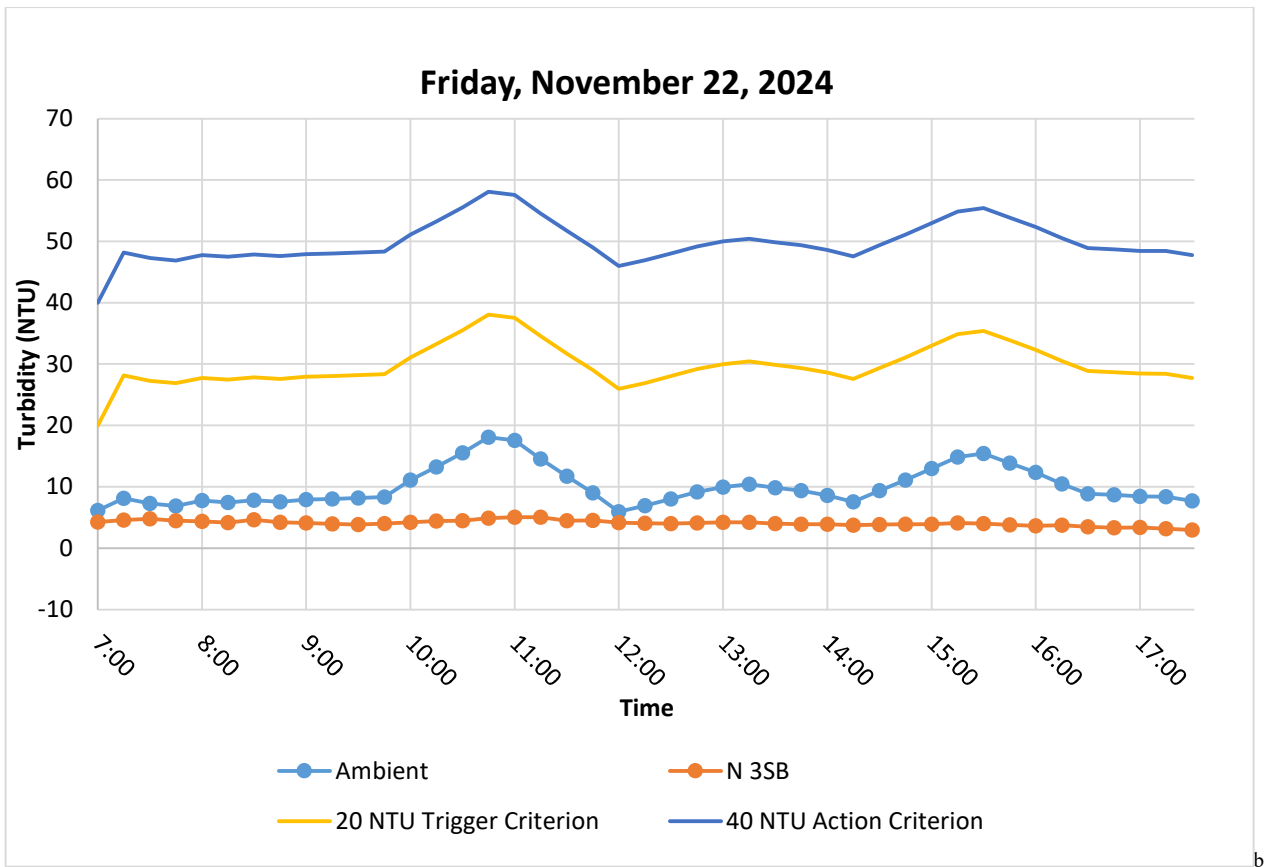
**Figure 5.** Hourly rolling average turbidity readings from 07:00 to 17:30.

### 3.4 Thursday, November 21, 2024



**Figure 6.** Hourly rolling average turbidity readings from 07:00 to 17:30. Elevated readings noted during the morning due to CSO discharges in RTA1 and RTA2.

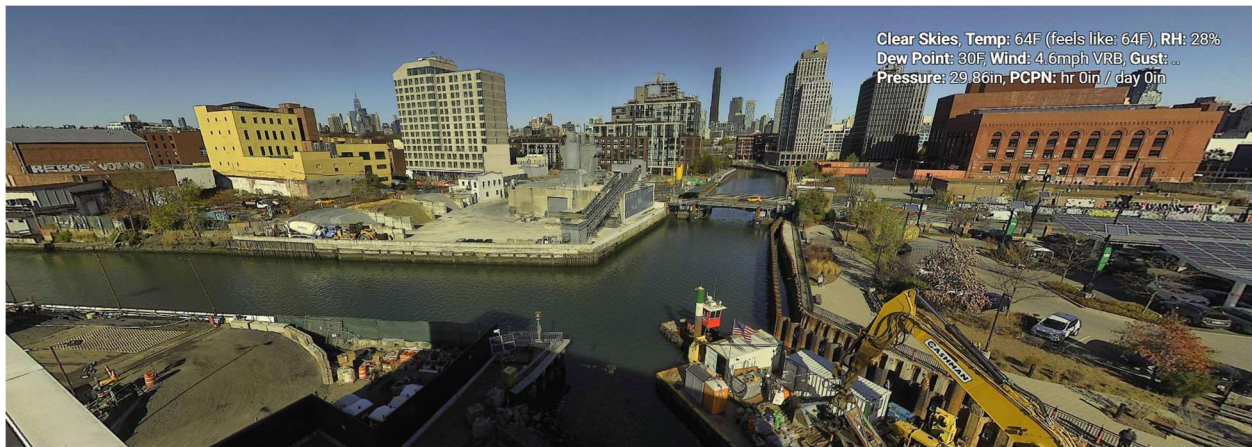
### 3.5 Friday, November 22, 2024



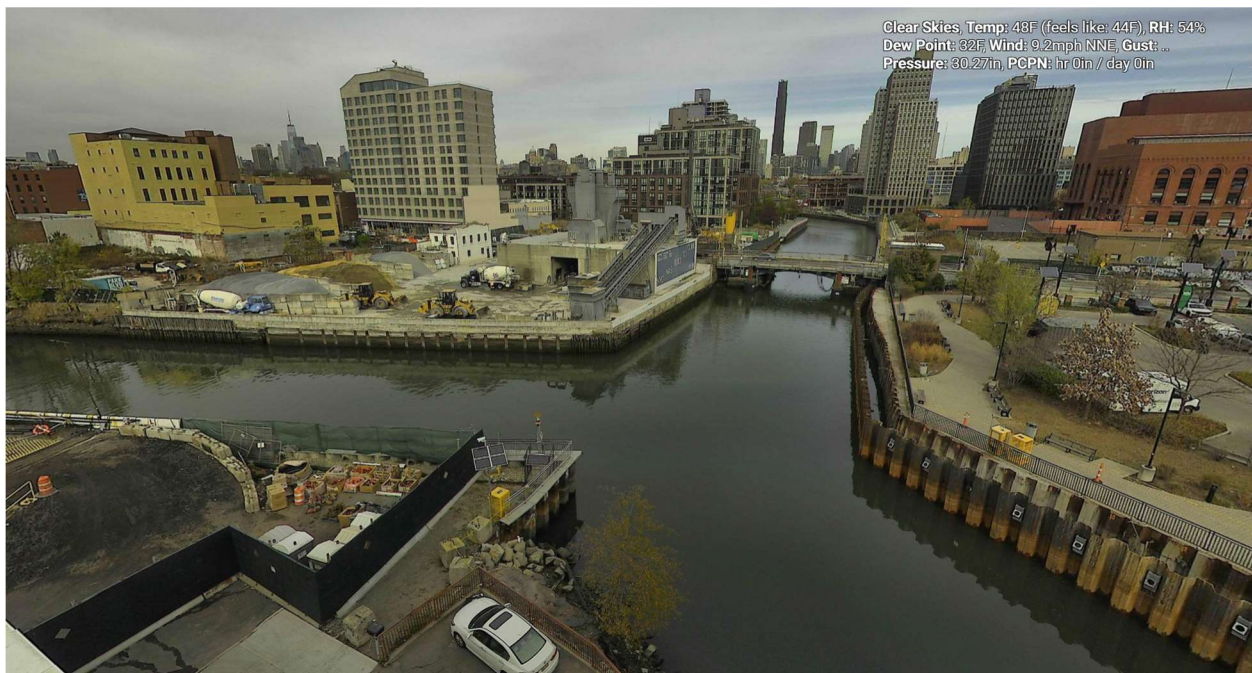
**Figure 7.** Hourly rolling average turbidity readings from 07:00 to 17:30.

#### 4. SUMMARY OF VISUAL OBSERVATIONS

Throughout the reporting period, sheens in the RTA2 areas ranged from minimal to moderate. During work activities, one turbidity curtain was deployed in the Turning Basin 4 and the curtain north of 3<sup>rd</sup> Street bridge was placed mid-day Tuesday November 19 after the Department of Transportation had completed work in RTA1.



**Figure 8 – November 18, 2024.** General Conditions in Canal south of 3<sup>rd</sup> Street Bridge during work activities work activities.

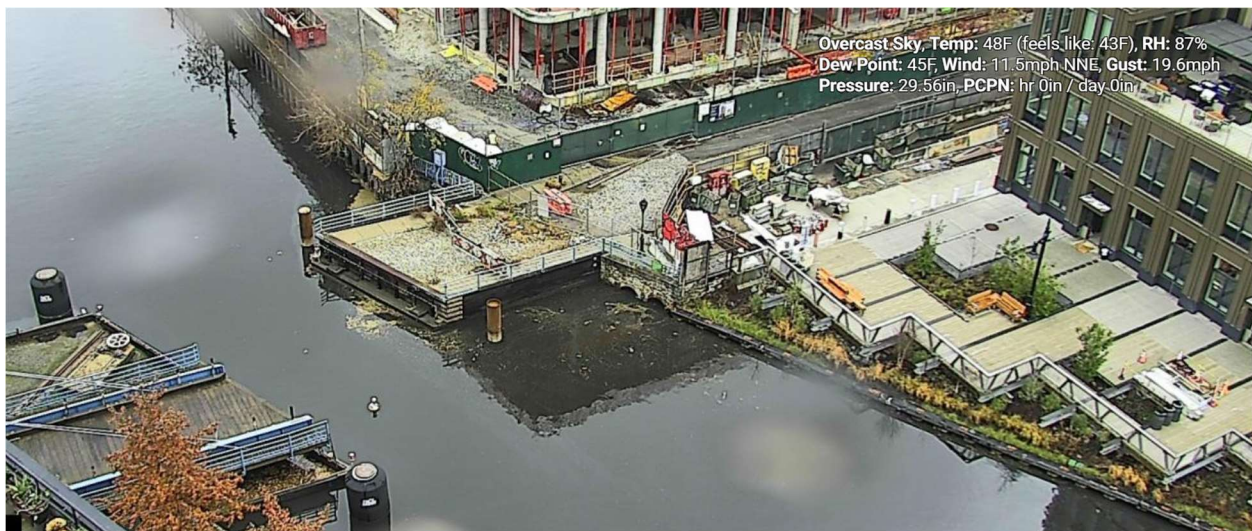


**Figure 9– November 20, 2024.** General Conditions in Canal south of 3<sup>rd</sup> Street Bridge during work activities work activities.





**Figure 10 – November 21, 2024.** General Conditions in RTA1 overnight at Carroll Street Bridge. CSO at head of canal discharging during rain event.



**Figure 11 – November 21, 2024.** General Conditions in RTA1 at Carroll Street Bridge. CSO discharging on southeast side of Carroll Street.



**Figure 12 – November 22, 2024.** General Conditions in RTA2, north of 9<sup>th</sup> Street Bridge during work hours.



# **APPENDIX A**

## **Turbidity Data Tables**

Table 3

Monday, Nov 18, 2024

| Date       | Time     | Turbidity (NTU) |      | Rolling Average Turbidity (NTU) |      | Difference (NTU) |
|------------|----------|-----------------|------|---------------------------------|------|------------------|
|            |          | Ambient         | N3SB | Ambient                         | N3SB | N3SB - Ambient   |
| 11/18/2024 | 7:00:00  | 2.27            | 0.00 | 4.37                            | 1.50 | -2.88            |
| 11/18/2024 | 7:15:00  | 1.56            | 1.15 | 3.82                            | 0.80 | -3.02            |
| 11/18/2024 | 7:30:00  | 1.48            | 0.00 | 2.88                            | 0.62 | -2.26            |
| 11/18/2024 | 7:45:00  | --              | --   | 2.46                            | 0.58 | -1.87            |
| 11/18/2024 | 8:00:00  | 1.11            | 0.00 | 1.61                            | 0.29 | -1.32            |
| 11/18/2024 | 8:15:00  | 7.45            | 1.90 | 2.90                            | 0.76 | -2.14            |
| 11/18/2024 | 8:30:00  | 7.31            | 1.06 | 4.34                            | 0.74 | -3.60            |
| 11/18/2024 | 8:45:00  | 6.96            | --   | 5.71                            | 0.99 | -4.72            |
| 11/18/2024 | 9:00:00  | 7.44            | 0.91 | 6.05                            | 0.97 | -5.09            |
| 11/18/2024 | 9:15:00  | 5.00            | 2.60 | 6.83                            | 1.62 | -5.22            |
| 11/18/2024 | 9:30:00  | 5.88            | 3.91 | 6.52                            | 2.12 | -4.40            |
| 11/18/2024 | 9:45:00  | 6.02            | 1.01 | 6.26                            | 2.11 | -4.15            |
| 11/18/2024 | 10:00:00 | 6.71            | 2.72 | 6.21                            | 2.23 | -3.98            |
| 11/18/2024 | 10:15:00 | 9.46            | 3.65 | 6.61                            | 2.78 | -3.84            |
| 11/18/2024 | 10:30:00 | 11.81           | 3.70 | 7.98                            | 3.00 | -4.98            |
| 11/18/2024 | 10:45:00 | 9.43            | 0.64 | 8.69                            | 2.34 | -6.34            |
| 11/18/2024 | 11:00:00 | 10.81           | 4.31 | 9.64                            | 3.00 | -6.64            |
| 11/18/2024 | 11:15:00 | 12.37           | 0.99 | 10.78                           | 2.66 | -8.12            |
| 11/18/2024 | 11:30:00 | 6.82            | 2.21 | 10.25                           | 2.37 | -7.88            |
| 11/18/2024 | 11:45:00 | 12.45           | 7.63 | 10.38                           | 3.16 | -7.22            |
| 11/18/2024 | 12:00:00 | 11.94           | 4.44 | 10.88                           | 3.92 | -6.96            |
| 11/18/2024 | 12:15:00 | 8.20            | 5.93 | 10.36                           | 4.24 | -6.12            |
| 11/18/2024 | 12:30:00 | 10.29           | 5.65 | 9.94                            | 5.17 | -4.77            |
| 11/18/2024 | 12:45:00 | 15.23           | --   | 11.62                           | 5.91 | -5.71            |
| 11/18/2024 | 13:00:00 | 13.43           | 6.92 | 11.82                           | 5.74 | -6.08            |
| 11/18/2024 | 13:15:00 | 15.07           | 6.44 | 12.45                           | 6.23 | -6.21            |
| 11/18/2024 | 13:30:00 | 14.90           | 4.85 | 13.79                           | 5.96 | -7.82            |
| 11/18/2024 | 13:45:00 | 8.58            | 3.04 | 13.44                           | 5.31 | -8.13            |
| 11/18/2024 | 14:00:00 | 13.27           | 4.04 | 13.05                           | 5.06 | -7.99            |
| 11/18/2024 | 14:15:00 | 13.21           | 4.53 | 13.01                           | 4.58 | -8.43            |
| 11/18/2024 | 14:30:00 | 11.95           | 5.14 | 12.38                           | 4.32 | -8.06            |
| 11/18/2024 | 14:45:00 | 12.04           | 4.85 | 11.81                           | 4.32 | -7.49            |
| 11/18/2024 | 15:00:00 | 11.72           | 4.02 | 12.44                           | 4.52 | -7.92            |
| 11/18/2024 | 15:15:00 | 13.76           | 4.33 | 12.54                           | 4.57 | -7.96            |
| 11/18/2024 | 15:30:00 | 12.02           | 3.36 | 12.30                           | 4.34 | -7.96            |
| 11/18/2024 | 15:45:00 | 11.84           | 4.95 | 12.28                           | 4.30 | -7.98            |
| 11/18/2024 | 16:00:00 | 6.04            | 5.31 | 11.08                           | 4.39 | -6.68            |
| 11/18/2024 | 16:15:00 | 12.66           | 5.59 | 11.26                           | 4.71 | -6.55            |
| 11/18/2024 | 16:30:00 | 11.72           | 4.55 | 10.86                           | 4.75 | -6.10            |
| 11/18/2024 | 16:45:00 | 13.52           | 2.37 | 11.16                           | 4.55 | -6.60            |
| 11/18/2024 | 17:00:00 | 12.36           | 2.89 | 11.26                           | 4.14 | -7.12            |
| 11/18/2024 | 17:15:00 | 6.13            | 1.33 | 11.28                           | 3.35 | -7.93            |
| 11/18/2024 | 17:30:00 | 3.96            | 1.86 | 9.54                            | 2.60 | -6.94            |

Table 4

Tuesday, Nov 19, 2024

| Date     | Time     | Turbidity (NTU) |      | Rolling Average Turbidity (NTU) |      | Difference (NTU) |
|----------|----------|-----------------|------|---------------------------------|------|------------------|
|          |          | Ambient         | N3SB | Ambient                         | N3SB | N3SB - Ambient   |
| 11/19/24 | 7:00:00  | 3.13            | 1.42 | 2.96                            | 1.99 | -0.97            |
| 11/19/24 | 7:15:00  | 4.08            | 0.83 | 3.18                            | 1.76 | -1.43            |
| 11/19/24 | 7:30:00  | 1.69            | 0.68 | 2.93                            | 1.17 | -1.77            |
| 11/19/24 | 7:45:00  | 7.21            | 0.75 | 3.73                            | 1.00 | -2.73            |
| 11/19/24 | 8:00:00  | 5.43            | 0.03 | 4.31                            | 0.74 | -3.56            |
| 11/19/24 | 8:15:00  | 6.90            | 1.04 | 5.06                            | 0.67 | -4.39            |
| 11/19/24 | 8:30:00  | 6.86            | 2.67 | 5.62                            | 1.04 | -4.58            |
| 11/19/24 | 8:45:00  | 3.37            | 0.87 | 5.95                            | 1.07 | -4.88            |
| 11/19/24 | 9:00:00  | 2.67            | --   | 5.04                            | 1.16 | -3.89            |
| 11/19/24 | 9:15:00  | 2.28            | 1.91 | 4.42                            | 1.62 | -2.79            |
| 11/19/24 | 9:30:00  | 2.66            | 3.04 | 3.57                            | 2.12 | -1.45            |
| 11/19/24 | 9:45:00  | 2.98            | --   | 2.79                            | 1.94 | -0.85            |
| 11/19/24 | 10:00:00 | 5.87            | 1.28 | 3.29                            | 2.08 | -1.22            |
| 11/19/24 | 10:15:00 | 7.03            | 2.01 | 4.16                            | 2.06 | -2.10            |
| 11/19/24 | 10:30:00 | 7.48            | 1.77 | 5.20                            | 2.02 | -3.18            |
| 11/19/24 | 10:45:00 | 7.77            | 2.65 | 6.23                            | 1.93 | -4.30            |
| 11/19/24 | 11:00:00 | 13.81           | 3.46 | 8.39                            | 2.24 | -6.16            |
| 11/19/24 | 11:15:00 | 14.13           | 3.78 | 10.04                           | 2.74 | -7.31            |
| 11/19/24 | 11:30:00 | 13.81           | 3.56 | 11.40                           | 3.05 | -8.35            |
| 11/19/24 | 11:45:00 | 13.38           | 2.21 | 12.58                           | 3.13 | -9.45            |
| 11/19/24 | 12:00:00 | 5.46            | 0.28 | 12.12                           | 2.66 | -9.46            |
| 11/19/24 | 12:15:00 | 19.15           | 1.95 | 13.19                           | 2.36 | -10.83           |
| 11/19/24 | 12:30:00 | 18.84           | 1.01 | 14.13                           | 1.80 | -12.32           |
| 11/19/24 | 12:45:00 | 18.77           | 0.00 | 15.12                           | 1.09 | -14.03           |
| 11/19/24 | 13:00:00 | 21.56           | 2.27 | 16.76                           | 1.10 | -15.65           |
| 11/19/24 | 13:15:00 | 15.69           | 3.89 | 18.80                           | 1.83 | -16.98           |
| 11/19/24 | 13:30:00 | 14.38           | 3.92 | 17.85                           | 2.22 | -15.63           |
| 11/19/24 | 13:45:00 | 16.58           | 1.82 | 17.40                           | 2.38 | -15.02           |
| 11/19/24 | 14:00:00 | 15.17           | 3.49 | 16.68                           | 3.08 | -13.60           |
| 11/19/24 | 14:15:00 | 9.63            | 1.47 | 14.29                           | 2.92 | -11.37           |
| 11/19/24 | 14:30:00 | 8.66            | 0.00 | 12.89                           | 2.14 | -10.75           |
| 11/19/24 | 14:45:00 | 9.04            | 0.32 | 11.82                           | 1.42 | -10.40           |
| 11/19/24 | 15:00:00 | 7.20            | 4.40 | 9.94                            | 1.94 | -8.00            |
| 11/19/24 | 15:15:00 | 7.96            | --   | 8.50                            | 1.55 | -6.95            |
| 11/19/24 | 15:30:00 | 8.39            | 0.54 | 8.25                            | 1.32 | -6.93            |
| 11/19/24 | 15:45:00 | 10.59           | 1.37 | 8.64                            | 1.66 | -6.98            |
| 11/19/24 | 16:00:00 | 10.08           | 0.92 | 8.84                            | 1.81 | -7.04            |
| 11/19/24 | 16:15:00 | 8.49            | 1.99 | 9.10                            | 1.20 | -7.90            |
| 11/19/24 | 16:30:00 | 6.19            | 2.87 | 8.75                            | 1.54 | -7.21            |
| 11/19/24 | 16:45:00 | 6.09            | --   | 8.29                            | 1.79 | -6.50            |
| 11/19/24 | 17:00:00 | 6.06            | 1.55 | 7.38                            | 1.83 | -5.55            |
| 11/19/24 | 17:15:00 | 5.57            | 0.00 | 6.48                            | 1.60 | -4.88            |
| 11/19/24 | 17:30:00 | 5.09            | 3.54 | 5.80                            | 1.99 | -3.81            |

Table 5

Wednesday, Nov 20, 2024

| Date      | Time     | Turbidity (NTU) |      | Rolling Average Turbidity (NTU) |      | Difference (NTU) |
|-----------|----------|-----------------|------|---------------------------------|------|------------------|
|           |          | Ambient         | N3SB | Ambient                         | N3SB | N3SB - Ambient   |
| 11/20/204 | 7:00:00  | 6.55            | --   | 5.68                            | --   | --               |
| 11/20/204 | 7:15:00  | 6.30            | 0.00 | 5.89                            | 0.00 | -5.89            |
| 11/20/204 | 7:30:00  | 5.69            | 0.69 | 5.84                            | 0.35 | -5.49            |
| 11/20/204 | 7:45:00  | 4.63            | 0.14 | 5.60                            | 0.28 | -5.32            |
| 11/20/204 | 8:00:00  | 1.41            | 0.00 | 4.92                            | 0.21 | -4.71            |
| 11/20/204 | 8:15:00  | 1.02            | 1.19 | 3.81                            | 0.41 | -3.40            |
| 11/20/204 | 8:30:00  | 0.52            | 5.50 | 2.65                            | 1.51 | -1.15            |
| 11/20/204 | 8:45:00  | 1.22            | 3.17 | 1.76                            | 2.00 | 0.24             |
| 11/20/204 | 9:00:00  | 1.45            | 6.18 | 1.12                            | 3.21 | 2.09             |
| 11/20/204 | 9:15:00  | 5.52            | --   | 1.95                            | 4.01 | 2.07             |
| 11/20/204 | 9:30:00  | 6.00            | 1.20 | 2.94                            | 4.01 | 1.07             |
| 11/20/204 | 9:45:00  | 7.15            | 1.02 | 4.27                            | 2.89 | -1.37            |
| 11/20/204 | 10:00:00 | 5.97            | 0.00 | 5.22                            | 2.10 | -3.12            |
| 11/20/204 | 10:15:00 | 3.94            | 0.32 | 5.72                            | 0.64 | -5.08            |
| 11/20/204 | 10:30:00 | 4.65            | 0.15 | 5.54                            | 0.54 | -5.00            |
| 11/20/204 | 10:45:00 | 5.77            | --   | 5.50                            | 0.37 | -5.12            |
| 11/20/204 | 11:00:00 | 8.42            | 0.00 | 5.75                            | 0.12 | -5.63            |
| 11/20/204 | 11:15:00 | 7.94            | 0.52 | 6.14                            | 0.25 | -5.90            |
| 11/20/204 | 11:30:00 | 10.45           | 2.19 | 7.45                            | 0.71 | -6.73            |
| 11/20/204 | 11:45:00 | 12.02           | 1.26 | 8.92                            | 0.99 | -7.93            |
| 11/20/204 | 12:00:00 | 10.28           | 1.44 | 9.82                            | 1.08 | -8.74            |
| 11/20/204 | 12:15:00 | 8.82            | 2.66 | 9.90                            | 1.61 | -8.29            |
| 11/20/204 | 12:30:00 | 8.43            | 1.77 | 10.00                           | 1.86 | -8.14            |
| 11/20/204 | 12:45:00 | 7.39            | 0.31 | 9.39                            | 1.49 | -7.90            |
| 11/20/204 | 13:00:00 | 7.26            | 0.41 | 8.44                            | 1.32 | -7.12            |
| 11/20/204 | 13:15:00 | 4.54            | 0.00 | 7.29                            | 1.03 | -6.26            |
| 11/20/204 | 13:30:00 | 6.10            | 0.00 | 6.74                            | 0.50 | -6.25            |
| 11/20/204 | 13:45:00 | 4.95            | --   | 6.05                            | 0.18 | -5.87            |
| 11/20/204 | 14:00:00 | 6.98            | 0.00 | 5.97                            | 0.10 | -5.87            |
| 11/20/204 | 14:15:00 | 4.91            | 0.00 | 5.50                            | 0.00 | -5.50            |
| 11/20/204 | 14:30:00 | 6.57            | --   | 5.90                            | 0.00 | -5.90            |
| 11/20/204 | 14:45:00 | 10.52           | 0.00 | 6.79                            | 0.00 | -6.79            |
| 11/20/204 | 15:00:00 | 9.24            | 0.00 | 7.65                            | 0.00 | -7.65            |
| 11/20/204 | 15:15:00 | 7.58            | 0.00 | 7.77                            | 0.00 | -7.77            |
| 11/20/204 | 15:30:00 | 8.84            | --   | 8.55                            | 0.00 | -8.55            |
| 11/20/204 | 15:45:00 | 11.24           | 0.68 | 9.48                            | 0.17 | -9.32            |
| 11/20/204 | 16:00:00 | 7.77            | --   | 8.93                            | 0.23 | -8.71            |
| 11/20/204 | 16:15:00 | 5.70            | 0.06 | 8.23                            | 0.24 | -7.98            |
| 11/20/204 | 16:30:00 | 7.73            | 0.00 | 8.25                            | 0.24 | -8.01            |
| 11/20/204 | 16:45:00 | 8.91            | --   | 8.27                            | 0.24 | -8.02            |
| 11/20/204 | 17:00:00 | 7.98            | 0.33 | 7.62                            | 0.13 | -7.49            |
| 11/20/204 | 17:15:00 | 7.91            | 1.32 | 7.64                            | 0.43 | -7.22            |
| 11/20/204 | 17:30:00 | 6.93            | 0.87 | 7.89                            | 0.63 | -7.26            |

Table 6

Thursday, Nov 21, 2024

| Date       | Time     | Turbidity (NTU) |       | Rolling Average Turbidity (NTU) |       | Difference (NTU) |
|------------|----------|-----------------|-------|---------------------------------|-------|------------------|
|            |          | Ambient         | N3SB  | Ambient                         | N3SB  | N3SB - Ambient   |
| 11/21/2024 | 7:00:00  | 19.64           | 19.10 | 19.64                           | 13.44 | -6.20            |
| 11/21/2024 | 7:15:00  | 30.61           | 17.02 | 25.13                           | 14.05 | -11.08           |
| 11/21/2024 | 7:30:00  | 30.16           | 13.35 | 26.81                           | 14.20 | -12.60           |
| 11/21/2024 | 7:45:00  | 42.68           | 27.37 | 30.77                           | 17.79 | -12.98           |
| 11/21/2024 | 8:00:00  | 31.81           | 21.92 | 30.98                           | 19.75 | -11.23           |
| 11/21/2024 | 8:15:00  | 25.83           | 15.40 | 32.22                           | 19.01 | -13.21           |
| 11/21/2024 | 8:30:00  | 38.11           | 19.19 | 33.72                           | 19.45 | -14.27           |
| 11/21/2024 | 8:45:00  | 16.65           | 17.22 | 31.01                           | 20.22 | -10.79           |
| 11/21/2024 | 9:00:00  | 18.60           | --    | 26.20                           | 18.43 | -7.76            |
| 11/21/2024 | 9:15:00  | 15.60           | 13.44 | 22.96                           | 16.32 | -6.64            |
| 11/21/2024 | 9:30:00  | 15.70           | 8.47  | 20.93                           | 14.58 | -6.35            |
| 11/21/2024 | 9:45:00  | 15.01           | 13.83 | 16.31                           | 13.24 | -3.07            |
| 11/21/2024 | 10:00:00 | 12.61           | 19.08 | 15.51                           | 13.71 | -1.80            |
| 11/21/2024 | 10:15:00 | 19.52           | 15.19 | 15.69                           | 14.00 | -1.69            |
| 11/21/2024 | 10:30:00 | 12.76           | 15.90 | 15.12                           | 14.50 | -0.63            |
| 11/21/2024 | 10:45:00 | 12.09           | 8.91  | 14.40                           | 14.58 | 0.18             |
| 11/21/2024 | 11:00:00 | 10.46           | 9.28  | 13.49                           | 13.67 | 0.18             |
| 11/21/2024 | 11:15:00 | 15.77           | 5.19  | 14.12                           | 10.89 | -3.23            |
| 11/21/2024 | 11:30:00 | 8.49            | 5.52  | 11.91                           | 8.96  | -2.95            |
| 11/21/2024 | 11:45:00 | 10.19           | 5.60  | 11.40                           | 6.90  | -4.50            |
| 11/21/2024 | 12:00:00 | 17.59           | 6.39  | 12.50                           | 6.39  | -6.11            |
| 11/21/2024 | 12:15:00 | 17.89           | 10.41 | 13.99                           | 6.62  | -7.37            |
| 11/21/2024 | 12:30:00 | 19.87           | 7.52  | 14.81                           | 7.09  | -7.72            |
| 11/21/2024 | 12:45:00 | 16.83           | 4.74  | 16.47                           | 6.93  | -9.54            |
| 11/21/2024 | 13:00:00 | 12.00           | 7.97  | 16.84                           | 7.41  | -9.43            |
| 11/21/2024 | 13:15:00 | 9.49            | 4.73  | 15.22                           | 7.07  | -8.14            |
| 11/21/2024 | 13:30:00 | 10.34           | 2.65  | 13.71                           | 5.52  | -8.18            |
| 11/21/2024 | 13:45:00 | 9.47            | 5.10  | 11.63                           | 5.04  | -6.59            |
| 11/21/2024 | 14:00:00 | 7.75            | 7.23  | 9.81                            | 5.54  | -4.27            |
| 11/21/2024 | 14:15:00 | 14.78           | 5.65  | 10.37                           | 5.07  | -5.29            |
| 11/21/2024 | 14:30:00 | 12.94           | 5.55  | 11.06                           | 5.24  | -5.82            |
| 11/21/2024 | 14:45:00 | 13.63           | 8.92  | 11.71                           | 6.49  | -5.22            |
| 11/21/2024 | 15:00:00 | 13.34           | 3.45  | 12.49                           | 6.16  | -6.33            |
| 11/21/2024 | 15:15:00 | 11.15           | 3.34  | 13.17                           | 5.38  | -7.79            |
| 11/21/2024 | 15:30:00 | 10.63           | 5.81  | 12.34                           | 5.41  | -6.93            |
| 11/21/2024 | 15:45:00 | 8.76            | 4.38  | 11.50                           | 5.18  | -6.32            |
| 11/21/2024 | 16:00:00 | 10.35           | 4.59  | 10.85                           | 4.31  | -6.53            |
| 11/21/2024 | 16:15:00 | 9.27            | 3.69  | 10.03                           | 4.36  | -5.67            |
| 11/21/2024 | 16:30:00 | 8.54            | 9.09  | 9.51                            | 5.51  | -4.00            |
| 11/21/2024 | 16:45:00 | 10.35           | 5.76  | 9.45                            | 5.50  | -3.95            |
| 11/21/2024 | 17:00:00 | 8.07            | 3.46  | 9.32                            | 5.32  | -4.00            |
| 11/21/2024 | 17:15:00 | 9.35            | 2.95  | 9.12                            | 4.99  | -4.13            |
| 11/21/2024 | 17:30:00 | 10.56           | 2.08  | 9.37                            | 4.67  | -4.71            |

Table 7

Friday, Nov 22, 2024

| Date       | Time     | Turbidity (NTU) |      | Rolling Average Turbidity (NTU) |      | Difference (NTU) |
|------------|----------|-----------------|------|---------------------------------|------|------------------|
|            |          | Ambient         | N3SB | Ambient                         | N3SB | N3SB - Ambient   |
| 11/22/2024 | 7:00:00  | 8.26            | 4.43 | 6.17                            | 4.28 | -15.69           |
| 11/22/2024 | 7:15:00  | 5.91            | 2.48 | 8.14                            | 4.59 | 41.52            |
| 11/22/2024 | 7:30:00  | 8.38            | 5.32 | 7.27                            | 4.78 | 34.81            |
| 11/22/2024 | 7:45:00  | 7.62            | 5.13 | 6.88                            | 4.49 | 26.56            |
| 11/22/2024 | 8:00:00  | 8.58            | 4.37 | 7.75                            | 4.35 | 13.20            |
| 11/22/2024 | 8:15:00  | 6.85            | 3.64 | 7.47                            | 4.19 | 0.40             |
| 11/22/2024 | 8:30:00  | 7.71            | --   | 7.83                            | 4.62 | 0.52             |
| 11/22/2024 | 8:45:00  | 7.07            | 3.67 | 7.57                            | 4.20 | 1.00             |
| 11/22/2024 | 9:00:00  | 9.35            | 4.85 | 7.91                            | 4.13 | 0.86             |
| 11/22/2024 | 9:15:00  | 9.10            | 3.74 | 8.02                            | 3.98 | 1.80             |
| 11/22/2024 | 9:30:00  | 7.64            | 3.12 | 8.17                            | 3.84 | 1.48             |
| 11/22/2024 | 9:45:00  | 8.56            | 4.69 | 8.35                            | 4.01 | 1.13             |
| 11/22/2024 | 10:00:00 | 20.72           | 4.56 | 11.08                           | 4.19 | -1.87            |
| 11/22/2024 | 10:15:00 | 20.12           | 6.07 | 13.23                           | 4.44 | -4.36            |
| 11/22/2024 | 10:30:00 | 20.54           | 4.06 | 15.52                           | 4.50 | -2.24            |
| 11/22/2024 | 10:45:00 | 20.55           | 5.18 | 18.10                           | 4.91 | -1.62            |
| 11/22/2024 | 11:00:00 | 5.80            | 5.48 | 17.55                           | 5.07 | 4.50             |
| 11/22/2024 | 11:15:00 | 5.69            | 4.45 | 14.54                           | 5.05 | 14.62            |
| 11/22/2024 | 11:30:00 | 5.95            | 3.27 | 11.71                           | 4.49 | 26.80            |
| 11/22/2024 | 11:45:00 | 7.07            | 4.32 | 9.01                            | 4.54 | 24.30            |
| 11/22/2024 | 12:00:00 | 5.24            | 3.41 | 5.95                            | 4.19 | 24.18            |
| 11/22/2024 | 12:15:00 | 10.64           | 4.93 | 6.92                            | 4.08 | 17.75            |
| 11/22/2024 | 12:30:00 | 11.18           | 4.20 | 8.02                            | 4.03 | 9.98             |
| 11/22/2024 | 12:45:00 | 11.72           | 3.62 | 9.17                            | 4.10 | 2.09             |
| 11/22/2024 | 13:00:00 | 11.10           | 4.95 | 9.97                            | 4.22 | 3.15             |
| 11/22/2024 | 13:15:00 | 7.46            | 3.43 | 10.42                           | 4.23 | 4.30             |
| 11/22/2024 | 13:30:00 | 7.80            | 3.80 | 9.85                            | 4.00 | 6.77             |
| 11/22/2024 | 13:45:00 | 8.73            | 3.77 | 9.36                            | 3.92 | 9.02             |
| 11/22/2024 | 14:00:00 | 7.85            | 3.66 | 8.59                            | 3.92 | 6.72             |
| 11/22/2024 | 14:15:00 | 5.98            | 4.04 | 7.57                            | 3.74 | 5.71             |
| 11/22/2024 | 14:30:00 | 16.45           | 3.98 | 9.36                            | 3.85 | 1.74             |
| 11/22/2024 | 14:45:00 | 16.41           | 4.11 | 11.09                           | 3.91 | -1.91            |
| 11/22/2024 | 15:00:00 | 18.16           | 3.77 | 12.97                           | 3.91 | -5.64            |
| 11/22/2024 | 15:15:00 | 17.24           | 4.73 | 14.85                           | 4.12 | -7.67            |
| 11/22/2024 | 15:30:00 | 8.81            | 3.43 | 15.41                           | 4.00 | -8.47            |
| 11/22/2024 | 15:45:00 | 8.66            | 2.86 | 13.85                           | 3.78 | -7.23            |
| 11/22/2024 | 16:00:00 | 8.75            | 3.44 | 12.32                           | 3.65 | -6.44            |
| 11/22/2024 | 16:15:00 | 8.98            | 4.34 | 10.49                           | 3.76 | -5.17            |
| 11/22/2024 | 16:30:00 | 9.16            | 3.26 | 8.87                            | 3.47 | -3.40            |
| 11/22/2024 | 16:45:00 | 7.89            | 2.77 | 8.69                            | 3.34 | -3.18            |
| 11/22/2024 | 17:00:00 | 7.47            | 3.11 | 8.45                            | 3.39 | -2.82            |
| 11/22/2024 | 17:15:00 | 8.54            | 2.29 | 8.41                            | 3.16 | -2.51            |
| 11/22/2024 | 17:30:00 | 5.61            | 3.45 | 7.73                            | 2.98 | -2.33            |