

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

**PERIOD: July 1, 2024 – July 5, 2024**

**Date of Report: July 9, 2024**

## **Report Contents**

- Scope of Monitoring
- Report of Exceedances
- Turbidity Buoy Data
- Dissolved Oxygen Monitoring Data
- Summary of Visual Observations

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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) two turbidity buoys were deployed to monitor turbidity related to bulkhead probing and large debris removal activities. A turbidity buoy was deployed in the Fourth Street Turning Basin (TB4) to monitor background turbidity unaffected by in-water construction activities and was referred to as the Ambient Buoy. A turbidity buoy was deployed north of 9<sup>th</sup> Street Bridge, along the west bulkhead. These buoys (Figure 1) are in use to monitor the limited RTA2 construction activities. Additional buoys will be added when intrusive dredging begins in the waterway.

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.



## 1.2 Current Reporting Period Scope of Monitoring

During the week of July 1, 2024, two turbidity buoys were deployed consisting of a Sentinel Buoy (9SB) approximately 10 meters north of the 9th Street Bridge on the west side, and an Ambient Buoy (Ambient) in the middle of Turning Basin Four. There were no RTA2 construction activities on Thursday, July 4, as it was an observed holiday.

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Instrument downtime was noted at the 9SB sentinel buoy from Tuesday, July 2 at 9:00PM to and Wednesday July 3 at 2:00PM. The telemetry downtime resulted in data gaps for the hours listed which may have been a result of cellular strength fluctuations. Signal strength will be tracked and should fluctuations occur again, repositioning of the buoys may be necessary.

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

## 1.3 Meteorological Conditions

A rainfall event which triggered a CSO discharge occurred on Thursday, July 4 between 10:30PM and Friday, July 5 at 3:00AM. The weather conditions onsite were as follows:

**Table 1-** Summary of Weather Conditions for reporting period.

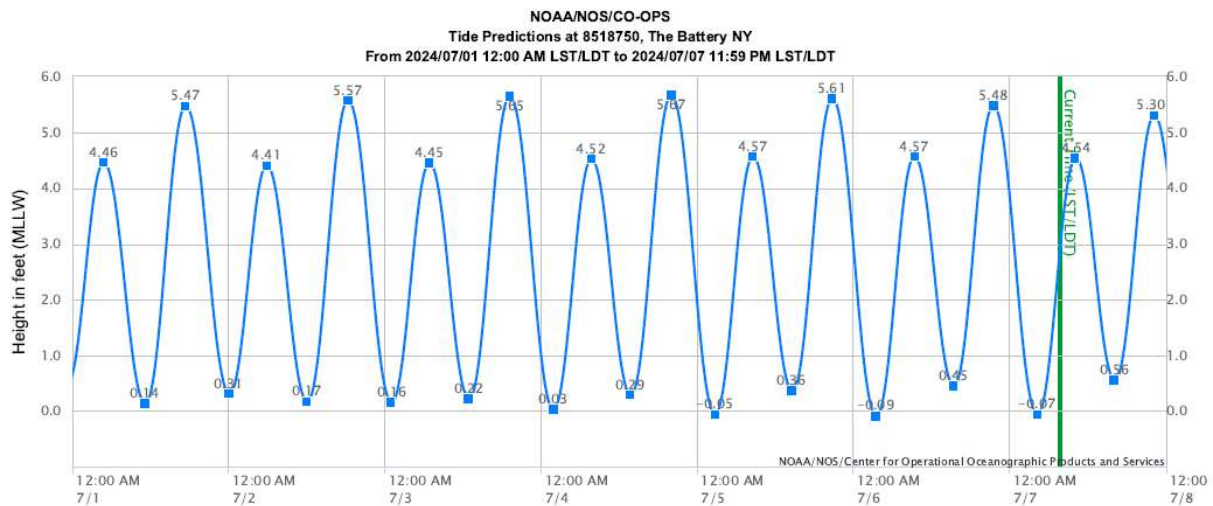
Meteorological Parameters	7/1/2024	7/2/2024	7/3/2024	7/4/2024	7/5/2024
<i>Wind Direction (from)</i>	N	SW	SSW	S	S
<i>Wind Speed (mph)</i>	8.6	5.7	7.3	6.1	4.7
<i>Temperature (°F)</i>	72.7	74.5	73.2	75.6	78.5
<i>Humidity (%)</i>	57.4	48.2	57.9	75.1	85.7
<i>Barometric Pressure (inHg)</i>	29.93	30.12	30.06	29.86	29.71
<i>Precipitation (Inch)</i>	0	0	0	0.11	0.225

## 1.4 Tidal Conditions

**Table 2** - Tidal data from the Battery (National Oceanic and Atmospheric Administration [NOAA] Station 8518750) was reviewed and is summarized as follows:

Date	Day	Time	Hgt	Time	Hgt	Time	Hgt	Time	Hgt
2024/07/01	Mon	04:41 AM	4.46 H	11:06 AM	0.14 L	5:17 PM	5.47 H		
2024/07/02	Tue	12:02 AM	0.31 L	05:46 AM	4.41 H	12:00 PM	0.17 L	6:16 PM	5.57 H
2024/07/03	Wed	12:57 AM	0.16 L	06:47 AM	4.45 H	12:52 PM	0.22 L	7:08 PM	5.65 H
2024/07/04	Thu	01:50 AM	0.03 L	07:41 AM	4.52 H	1:44 PM	0.29 L	7:57 PM	5.67 H
2024/07/05	Fri	02:41 AM	-0.05 L	08:31 AM	4.57 H	2:35 PM	0.36 L	8:43 PM	5.61 H
2024/07/06	Sat	03:29 AM	-0.09 L	09:20 AM	4.57 H	3:24 PM	0.45 L	9:28 PM	5.48 H
2024/07/07	Sun	04:14 AM	-0.07 L	10:09 AM	4.54 H	4:09 PM	0.56 L	10:13 PM	5.30 H

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



Note: The interval is High/Low, the solid blue line depicts a curve fit between the high and low values and approximates the segments between.  
Disclaimer: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.

## 2. REPORT OF EXCEEDANCES

No exceedances of the trigger or action criteria occurred during the reporting period due to construction activities. 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**

During the reporting period, elevated readings were observed at the SB9 sentinel buoy and the ambient buoy due to sensor biofouling. Anomalous and erroneous turbidity measurements were recorded in both RTA1 and RTA2, unrelated to construction activities, and were detected both before and after active construction. As a result, all data was excluded from this report.

## **4. DISSOLVED OXYGEN MONITORING DATA**

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

- Ambient
  - Average = 1.97 (+/-0.1) mg/L
  - Min = 0.0 (+/-0.1) mg/L on multiple days
  - Max = 21.42(+/-0.1) mg/L on Sunday, July 7, 2024
- 9<sup>th</sup> Street Bridge (N 9SB)
  - Average = 0.98 (+/-0.1) mg/L
  - Min = 0.0 (+/-0.1) mg/L on multiple days
  - Max = 8.64 (+/-0.1) mg/L on Sunday, July 7, 2024



## 5. SUMMARY OF VISUAL OBSERVATIONS

Visual indications of elevated turbidity unrelated to construction activities were observed throughout the reporting period. Sheens in areas of RTA2 were minimal. Turbid water was noted south of 3<sup>rd</sup> Street Bridge during and after work activities throughout the week.



**Figure 2 – July 2, 2024.** General Conditions in Canal north of 9<sup>rd</sup> Street Bridge prior to work activities at 6:52AM.



**Figure 3 – July 3, 2024.** General Conditions in Canal south of 3<sup>rd</sup> Street Bridge prior to work activities at 7:02AM.



**Figure 4- July 4, 2024.** General Conditions in Canal north of 9<sup>th</sup> Street Bridge. No work performed this day. Suspected CSO discharge noted at 8:37AM in this area.



