

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

PERIOD: December 23, 2024 – December 27, 2024

Date of Report: December 31, 2024

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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 3rd Street Bridge (3SB), along the west bulkhead. These buoys (Figure 1) are in use to monitor the RTA2 pre-construction activities.

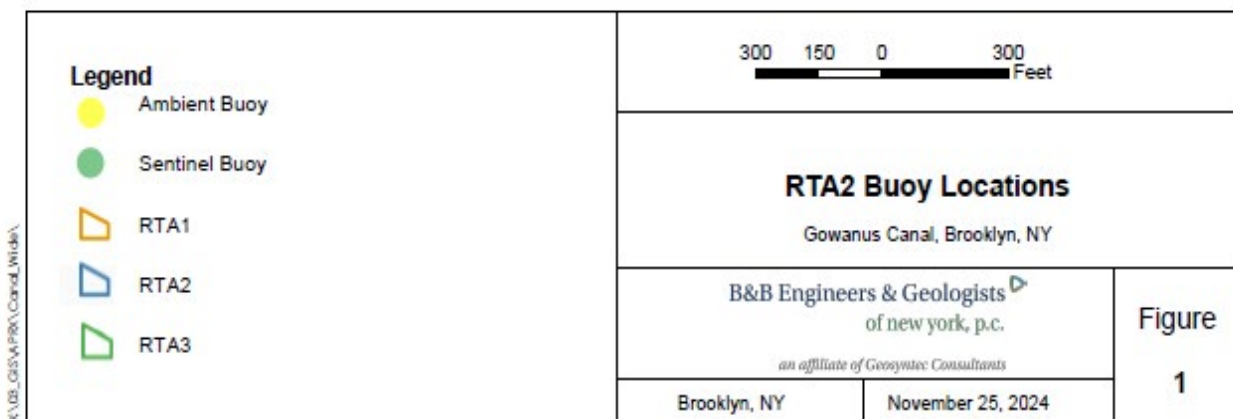
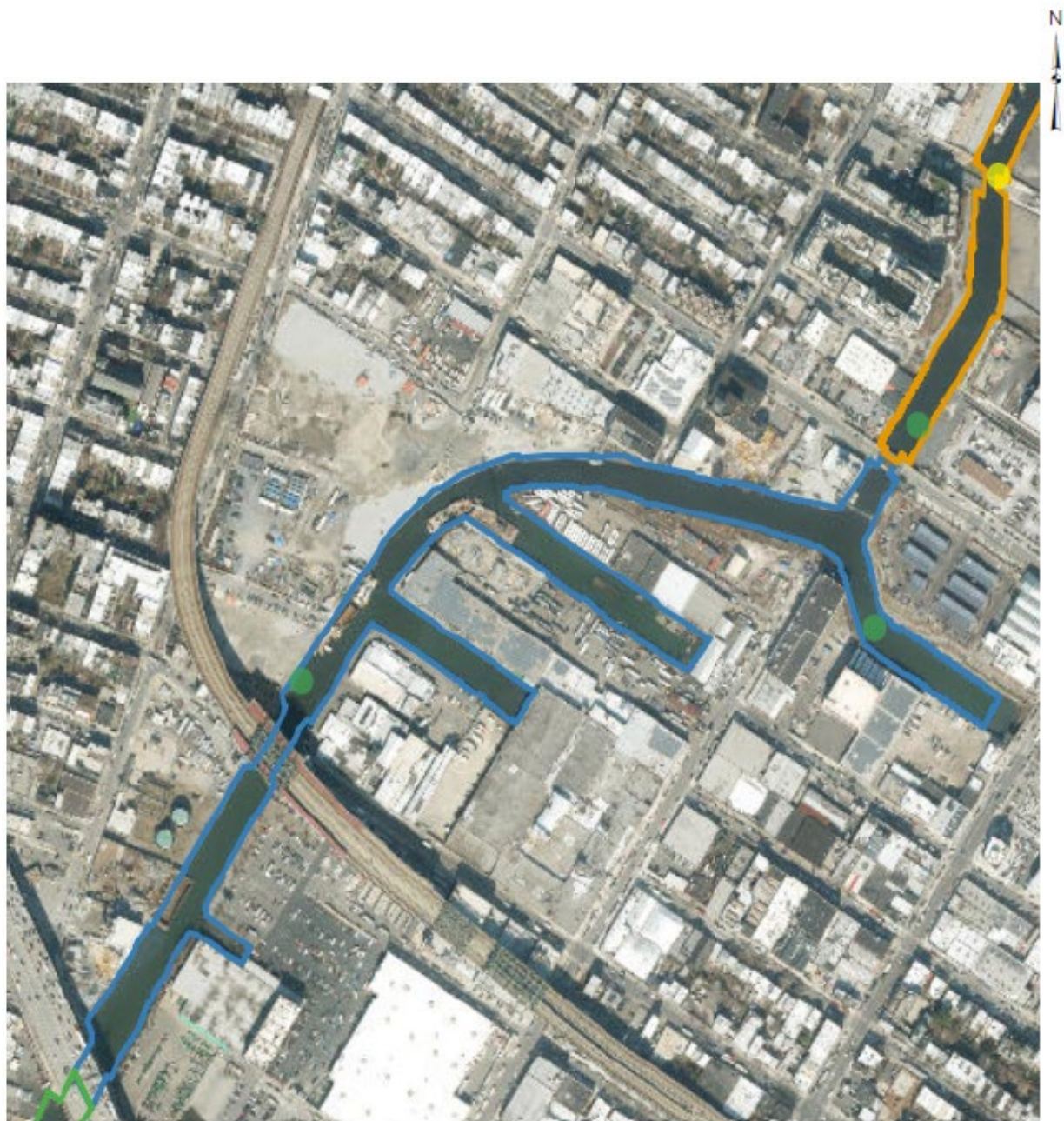
All readings from buoys were transmitted via telemetry at 15-minute intervals. The instrument used to collect turbidity from the buoys is an In-Situ VuLink (telemetry) and AquaTroll500 (sonde), equipped with optical sensors capable of reading turbidity levels with an accuracy of +/- 0.5 NTU.

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 3rd Street Bridge on the west side (3SB). A sentinel buoy was placed in Fourth Street Turning Basin (TB4). The 9th 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 9th 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 9th 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.
- On November 18, 2024, the sentinel buoy in TB4 was deselected from construction monitoring due to instrument errors. The buoy will remain out of service until maintenance and field observations can be made.
- On November 25, 2024, the 9SB sonde and buoy were placed back into the water quality monitoring program.
- On December 18, 2024, the 9SB sonde and buoy were relocated south of 9th Street Bridge along the eastern bulkhead, to avoid construction vessel traffic and shallow waters which had been resulting in false elevated readings, particularly during low tide events.



1.3 Current Reporting Period Scope of Monitoring

During the week of December 16, 2024, three buoys equipped with multi-parameter water quality sondes were deployed as described in Section 1.2.

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



1.5 Tidal Conditions

2. REPORT OF EXCEEDANCES

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

The 9SB monitor was noted in past reports to have been in shallow waters and as a result the sonde was stuck and/or beached in sediment causing false elevated readings. On Wednesday December 18 the 9SB was therefore moved south of 9th Street Bridge, where there is deeper water.

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

No work was performed onsite during this reporting period. Hence, no water quality monitoring data was collected.

3.1 Monday, December 23, 2024

3.2 Tuesday, December 24, 2024

3.3 Wednesday, December 25, 2024

3.4 Thursday, December 26, 2024

3.5 Friday, December 27, 2024

4. SUMMARY OF VISUAL OBSERVATIONS

Throughout the reporting period, sheens in the RTA2 areas ranged from minimal to moderate. CSO's were discharged into the canal on Monday, December 16, 2024, elevating turbidity where discharges occurred.

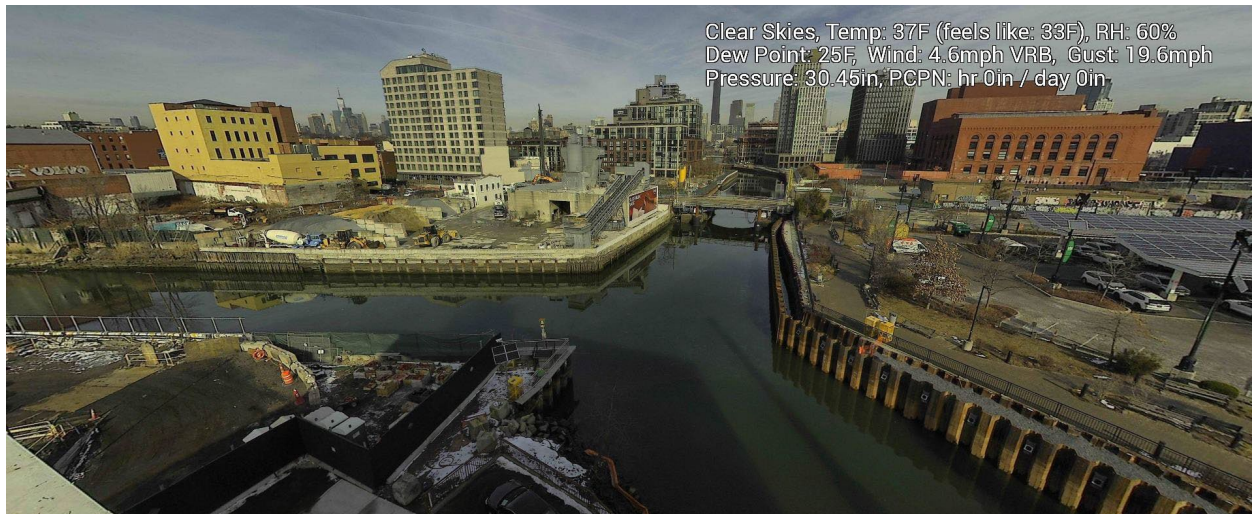


Figure 8 – December 27, 2024. General Conditions in Canal north of 9th Street Bridge during work activities work activities.

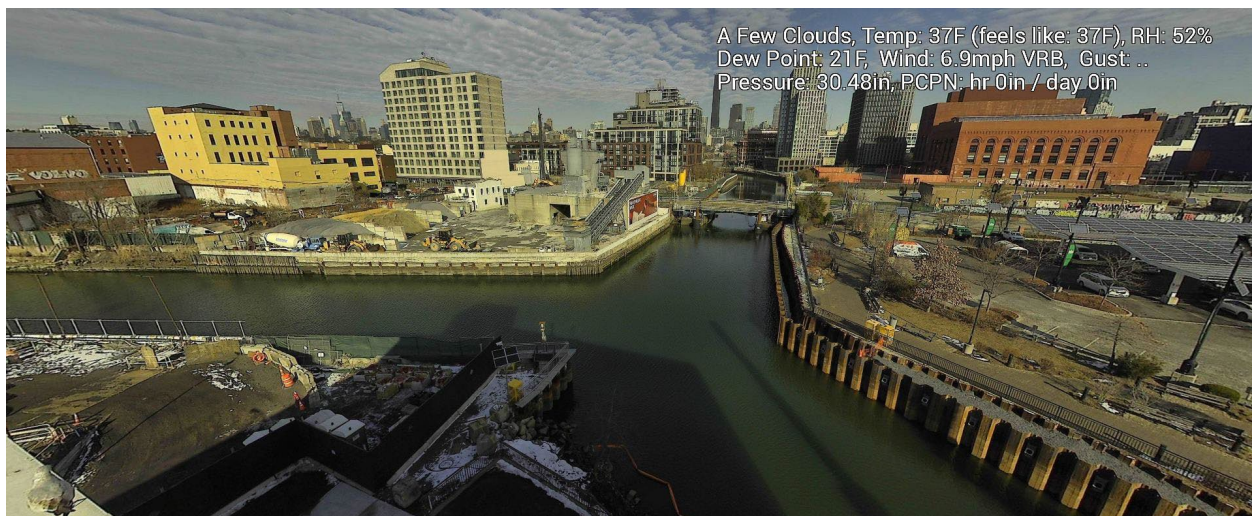


Figure 9– December 26, 2024. General Conditions in Canal south of 3rd Street Bridge during work activities work activities.



Figure 10– December 24, 2024. General Conditions in Canal north of 9th Street Bridge during work activities work activities.