

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

PERIOD: November 8 – November 12, 2021

Date of Report: November 17, 2021

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1. SCOPE OF MONITORING

The following report summarizes water quality monitoring data collected during the week of November 8, 2021. In accordance with the Water Quality Monitoring Plan for In-waterway Construction Activities (WQMP) three turbidity buoys were deployed to monitor turbidity at the start of dredging between Carroll Street Bridge and 3rd Street Bridge. One turbidity buoy was deployed just south of the 3rd Street Bridge outside of the air curtain and traditional turbidity curtain. This buoy is referred to as the 3rd Street Sentinel Buoy. A second turbidity buoy was deployed just south of the 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. This turbidity buoy is referred to as the Ambient Buoy. Prior to dredging north of the Union Street Bridge, on January 22, 2021 a fourth turbidity buoy was deployed just south of the Union Street Bridge and is 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. 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. During this reporting period, in-canal construction activities were limited to positioning barges for upcoming bulkhead construction activities. During this downtime, all three turbidity buoys were removed from the canal for servicing. No turbidity data was collected during this reporting period. No handheld measurements were collected during this reporting period. Visual observations of turbidity and sheen are summarized in Section 4.

2. REPORT OF EXCEEDANCES

No exceedance of the 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 exceedance of the trigger or action criteria were observed during the reporting period.

3. TURBIDITY BUOY DATA

During the previous reporting period, power outages and erroneous turbidity readings were encountered. During the current reporting period, all turbidity buoys were removed from the canal for servicing. Upon removing the turbidity buoys it was discovered that corrosion of the bolts sealing the battery chamber of the 3rd Street Sentinel Buoy resulted in slight leaking of water into the battery chamber and damage to the battery. Until the replacement batteries arrive from the vendor, turbidity monitoring will be performed using the Ambient Buoy and Carroll Street Sentinel Buoy.

4. SUMMARY OF VISUAL OBSERVATIONS

No sheen above background conditions was observed during the reporting period.