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

PERIOD: July 8, 2024 – July 12, 2024

Date of Report: July 15, 2024

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Prepared by

B&B Engineers & Geologists <sup>▷</sup> of new york, p.c.

an affiliate of Geosyntec Consultants

1255 Roberts Blvd, Suite 200 Kennesaw, GA 30144 Project Number JR0289B

#### 1. SCOPE OF MONITORING

#### 1.1 <u>Initial Buoy Locations</u>

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 3rd Street Bridge outside of the air curtain and traditional turbidity curtain and was referred to as the 3rd 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 was referred to as the Carroll Street Sentinel Buoy. The third turbidity buoy was deployed in the Fourth Street Turning Basin (TB4) in order to monitor background turbidity unaffected by in-water construction activities and was referred to as the Ambient Buoy.

Each turbidity buoy was initially 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.

#### 1.2 <u>Summary of Monitoring Adjustments during Construction</u>

- 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. Due to similar issues, the Ambient Buoy was removed from service again on Monday, April 24, 2023, before being redeployed on Friday, May 12, 2023, and again removed from service on Monday, May 15, 2023, before being redeployed on Monday, June 12, 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.
- Data from the Third Street Sentinel Buoy was not reported from Thursday June 1, 2023 to June 2, 2023 due to a power failure and/or faulty communications system preventing transmission of readings. The Third Street Sentinel Buoy was returned to service with data collection resuming on June 5, 2023.
- On Wednesday, July 26, 2023, a fourth monitoring buoy was deployed just north of the Union Street Bridge to monitor dissolved oxygen (DO) in RTA1.
- On Tuesday, September 19, 2023, the fourth monitoring buoy (originally deployed north of the Union Street Bridge to monitor DO) was moved to just south of the Carroll Street Bridge due to ongoing in-waterway construction activities within 100 feet. In addition to dissolved oxygen, this served as an additional sentinel buoy and was referred to as the South Carroll Street Bridge Sentinel Buoy.
- On Thursday, November 2, 2023, the monitoring buoy deployed just south of the Third Street Bridge was removed from the canal to conduct maintenance and necessary repairs.
- On Monday, November 13, 2023, the monitoring buoy most recently deployed south of the Carroll Street Bridge was moved to just south of the Union Street Bridge due to ongoing in-waterway construction activities within 100 feet. In addition to dissolved oxygen, this served as an additional sentinel buoy and was referred to as the South Union Street Bridge Sentinel Buoy.
- On Tuesday, December 19, 2023, the monitoring buoy most recently deployed south of the Union Street Bridge was moved back to just south of the Carroll Street Bridge (referred to as the South Carroll Street Bridge Sentinel Buoy) due to ongoing in-waterway construction activities within 100 feet of Union Street Bridge.

- On Monday, February 12, 2024, the monitoring buoy most recently deployed south of the Carroll Street Bridge was moved to just south of the Third Street Bridge (referred to as the South Third Street Bridge Sentinel Buoy) due to ongoing in-waterway construction activities progressing south of the Carroll Street Bridge and into the south pool.
- On Wednesday, March 27, 2024, the monitoring buoy deployed south of the Third Street Bridge was moved to just north of the Third Street Bridge (referred to as the North Third Street Bridge Sentinel Buoy) due to ongoing in-waterway construction activities on the south side of the Third Street Bridge.
- During the week of April 29, 2024, all three of the monitoring buoys were removed from the water. There was not active dredging, capping, or ISS activity on the water during the reporting period, so this time was used to deploy four newly purchased buoys. The buoys were placed as follows: just north of the Third Street Bridge (referred to as the North Third Street Bridge Sentinel Buoy or NTS Buoy), twenty meters south of the Union Street Bridge (referred to as the Union Street Sentinel Buoy or USB Buoy), east end of Turning Basin Four (referred as the Ambient Buoy), and adjacent to the bulkhead of Turning Basin One (referred to as Turning Basin One Sentinel Buoy or TB1 Buoy).
- On Friday June 7, 2024, the Ambient Buoy was moved 30 meters west in Turning Basin Four to decrease the biofouling of the sensors.
- On Thursday June 20, 2024, post construction operation hours, the buoy north of the Third Street Bridge was moved to the west bulkhead north of 9<sup>th</sup> Street Bridge for RTA2 work.

#### 1.3 <u>Current Reporting Period Scope of Monitoring</u>

During the week of July 8, 2024, three turbidity buoys were deployed consisting of a Sentinel Buoy (USB) approximately twenty meters south of the Union Street Bridge, a Sentinel Buoy (TB1) located south of the supplemental dredging water treatment barge near Turning Basin One, and an Ambient Buoy (Ambient) in the middle of Turning Basin Four. All Sentinel Buoys were positioned on the eastern side of the Canal

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  $\pm$ -0.5 NTU and DO levels with an accuracy of  $\pm$ -0.1 mg/L.

Instrument downtime was noted at the TB1 sentinel buoy on Friday July 12 between 11:45AM and 8:14PM. 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 ambient buoy, turbidity and sheen are summarized in Section 5.



#### 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 onehour 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 inwaterway 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 <u>Response to Criteria Exceedances</u>

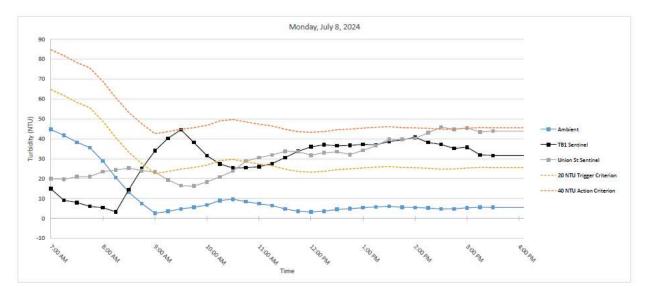
The trigger level criterion serves to provide early notification to the contractor of construction activities that may lead to an exceedance of the action level criterion. In the event of an exceedance to the trigger criterion, the contractor will not be stopped, and the contractor will be directed to 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**

Elevated turbidity was measured throughout RTA1 during the reporting period unrelated to construction activities and was detected both before and after active construction. Biofouling was noted during maintenance activities at the ambient buoy on Monday July 8, 2024. Discharge from the water treatment system remained clear and is not contributing to the elevated turbidity readings.

#### 3.1 Monday, July 8, 2024

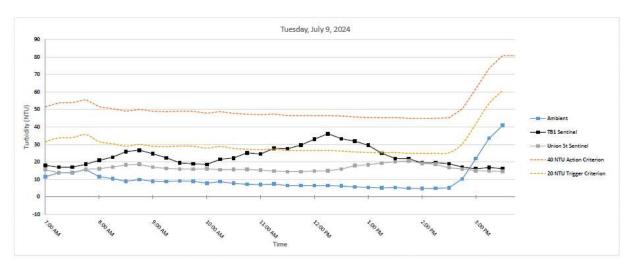
**Figure 2.** Hourly rolling average turbidity readings on Monday July 8, 2024, from 7 AM to 3:30 PM



Note: Elevated turbidity levels were observed in RTA1, unrelated to construction activities, and persisted both before and after active construction.

#### 3.2 <u>Tuesday, July 9, 2024</u>

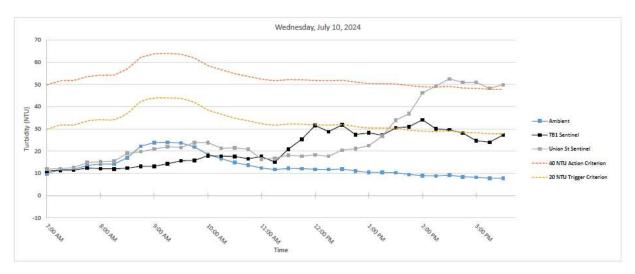
**Figure 3.** Hourly rolling average turbidity readings on Tuesday, July 9, 2024, from 7 AM to 3:30 PM



Note: Elevated turbidity levels were observed in RTA1, unrelated to construction activities, and persisted both before and after active construction.

#### 3.3 <u>Wednesday, July 10, 2024</u>

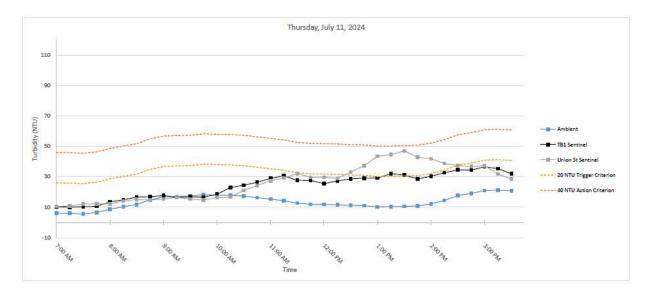
**Figure 4.** Hourly rolling average turbidity readings on Wednesday, July 10, 2024, from 7 AM to 3:30 PM.



Note: Elevated turbidity levels were observed in RTA1, unrelated to construction activities, and persisted both before and after active construction.

#### 3.1 <u>Thursday, July 11, 2024</u>

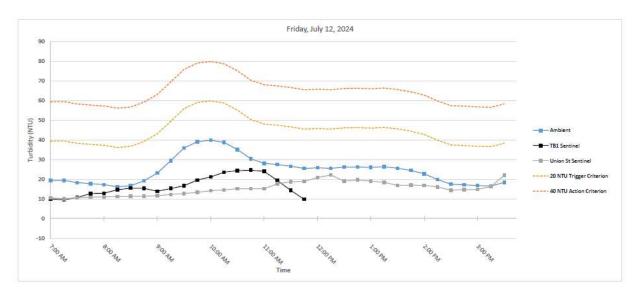
**Figure 5.** Hourly rolling average turbidity readings on Thursday, July 11, 2024, from 7 AM to 3:30 PM.



Note: Elevated turbidity levels were observed in RTA1, unrelated to construction activities, and persisted both before and after active construction.

#### 3.2 Friday, July 12, 2024

**Figure 6.** Hourly rolling average turbidity readings on Friday, July 12, 2024, from 7 AM to 3:30 PM.



**Note:** Elevated turbidity levels were observed in RTA1, unrelated to construction activities, and persisted both before and after active construction. Loss of communication with TB1 Sentinel Buoy resulted in loss of turbidity data starting at 11:45 AM.

#### 4. DISSOLVED OXYGEN MONITORING DATA

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

- Ambient
  - Average = 6.20 (+/-0.1) mg/L
  - Min = 0.0 (+/-0.1) mg/L on multiple days
  - Max = 22.72 (+/-0.1) mg/L on Sunday, July 14, 2024
- Turning Basin 1 (TB1)
  - Average = 1.12 (+/-0.1) mg/L
  - Min = 0.0 (+/-0.1) mg/L on multiple days
  - Max = 18.00 (+/-0.1) mg/L on Sunday, July 14, 2024
- South Union Street Bridge (S USB)
  - Average = 0.37 (+/-0.1) mg/L
  - Min = 0.0 (+/-0.1) mg/L on multiple days
  - Max = 5.98 (+/-0.1) mg/L on Sunday, July 14, 2024

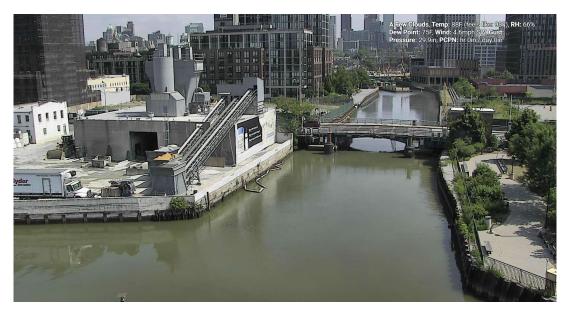
#### 5. SUMMARY OF VISUAL OBSERVATIONS

Visual indications of elevated turbidity unrelated to construction activities were observed throughout the reporting period. Sheens were observed during construction activities at the Flushing Tunnel and were contained by two turbidity curtains and oil absorbent booms. Sheens in other areas of RTA1 were minimal. A rainfall event which triggered a CSO discharge occurred on Thursday, July 11 between 2:30AM and 3:30AM.

On Monday July 8, 2024, the canal was observed to change from a dark coloration to a green coloration north of the Union Street Bridge. The canal north of 3<sup>rd</sup> Street Bridge periodically changed from green to dark coloration to green throughout the week. Strong sulfurous odors were detected north of Third Street Bridge throughout the week.



**Figure 7 – July 8, 2024.** Canal water changed from a dark coloration to a green coloration north of the Third Street Bridge on Monday. Turbidity unrelated to construction activities also observed.



**Figure 8** – **July 10, 2024.** Canal water north of 3<sup>rd</sup> Street Bridge with a green coloration. Turbidity unrelated to construction activities also observed.

# **APPENDIX A Turbidity Data Tables**

Table 1

### Monday July 8, 2024

	Time	Turbidity (NTU)			R	olling Average Turbidity (N	Difference (NTU)		
Date		Ambient	TB1	USB	Ambient	TB1	USB	TB1 - Ambient	USB - Ambient
7/8/2024	7:00:00 AM	44.73	14.86	19.93	44.73	14.86	19.93	-29.87	-24.81
7/8/2024	7:15:00 AM	38.72	3.34	19.42	41.73	9.10	19.67	-32.63	-22.05
7/8/2024	7:30:00 AM	31.36	5.91	23.58	38.27	8.04	20.97	-30.23	-17.30
7/8/2024	7:45:00 AM	27.35	0.00	21.14	35.54	6.03	21.02	-29.51	-14.52
7/8/2024	8:00:00 AM	1.70	2.86	33.24	28.77	5.39	23.46	-23.38	-5.31
7/8/2024	8:15:00 AM	3.52	4.47	24.34	20.53	3.32	24.34	-17.21	3.81
7/8/2024	8:30:00 AM	1.81	59.28	24.01	13.15	14.51	25.26	1.36	12.12
7/8/2024	8:45:00 AM	3.01	58.61	17.64	7.48	25.04	24.08	17.57	16.60
7/8/2024	9:00:00 AM	2.85	44.67	17.10	2.58	33.98	23.27	31.40	20.69
7/8/2024	9:15:00 AM	6.58	34.31	13.61	3.55	40.27	19.34	36.72	15.79
7/8/2024	9:30:00 AM	9.82	25.85	9.77	4.81	44.54	16.43	39.73	11.61
7/8/2024	9:45:00 AM		27.35	23.18	5.57	38.16	16.26	32.59	10.70
7/8/2024	10:00:00 AM	7.93	25.21	28.17	6.79	31.48	18.37	24.68	11.57
7/8/2024	10:15:00 AM	11.75	24.00	29.80	9.02	27.34	20.91	18.32	11.89
7/8/2024	10:30:00 AM	9.07	24.18	28.20	9.64	25.32	23.82	15.67	14.18
7/8/2024	10:45:00 AM	5.13	26.66	34.43	8.47	25.48	28.76	17.01	20.29
7/8/2024	11:00:00 AM	2.77	29.82	31.98	7.33	25.97	30.52	18.64	23.18
7/8/2024	11:15:00 AM	3.45	33.06	34.80	6.43	27.54	31.84	21.11	25.41
7/8/2024	11:30:00 AM	3.52	38.97	39.11	4.79	30.54	33.70	25.75	28.91
7/8/2024	11:45:00 AM	3.10	39.88	27.57	3.59	33.68	33.58	30.08	29.98
7/8/2024	12:00:00 PM	3.45	38.11	25.39	3.26	35.97	31.77	32.71	28.51
7/8/2024	12:15:00 PM	4.61	34.87	38.18	3.63	36.98	33.01	33.35	29.38
7/8/2024	12:30:00 PM	7.94	30.71	37.11	4.53	36.51	33.47	31.98	28.95
7/8/2024	12:45:00 PM	5.33	40.00		4.89	36.71	32.06	31.82	27.18
7/8/2024	1:00:00 PM	5.50	42.50	36.00	5.37	37.24	34.17	31.87	28.80
7/8/2024	1:15:00 PM	5.54	36.78	34.76	5.78	36.97	36.51	31.19	30.73
7/8/2024	1:30:00 PM	6.15	43.08	51.01	6.09	38.61	39.72	32.52	33.63
7/8/2024	1:45:00 PM	5.37	34.96	36.91	5.58	39.46	39.67	33.89	34.09
7/8/2024	2:00:00 PM	4.83	46.43	42.35	5.48	40.75	40.21	35.27	34.73
7/8/2024	2:15:00 PM	4.25	29.34	49.91	5.23	38.12	42.99	32.89	37.76
7/8/2024	2:30:00 PM	3.17	32.07	49.08	4.75	37.17	45.85	32.42	41.10
7/8/2024	2:45:00 PM	6.70	32.78	45.46	4.86	35.11	44.74	30.25	39.88
7/8/2024	3:00:00 PM	7.64	38.15	40.45	5.32	35.75	45.45	30.43	40.13
7/8/2024	3:15:00 PM	6.21	27.31	32.25	5.60	31.93	43.43	26.33	37.84
7/8/2024	3:30:00 PM	3.81	27.71	52.20	5.51	31.60	43.89	26.10	38.38

# Tuesday July 9, 2024

	Time		Turbidity (NTU)		Ro	olling Average Turbidity (N	Difference (NTU)		
Date		Ambient	TB1	USB	Ambient	TB1	USB	TB1 - Ambient	USB - Ambient
7/9/2024	7:00:00		16.05	12.39	11.56	18.00	15.54	6.44	3.97
7/9/2024	7:15:00	15.19	14.27	11.60	13.77	17.05	13.88	3.28	0.11
7/9/2024	7:30:00	7.04	18.06	13.58	13.92	17.01	13.71	3.09	-0.21
7/9/2024	7:45:00	12.51	28.93	24.80	15.64	18.70	15.87	3.06	0.23
7/9/2024	8:00:00	11.65	27.52	18.35	11.60	20.97	16.14	9.37	4.54
7/9/2024	8:15:00	5.90	24.91	17.27	10.46	22.74	17.12	12.28	6.66
7/9/2024	8:30:00	8.01	30.38	17.44	9.02	25.96	18.29	16.94	9.26
7/9/2024	8:45:00	11.93	21.84	15.30	10.00	26.72	18.63	16.72	8.63
7/9/2024	9:00:00	7.23	18.74	16.53	8.94	24.68	16.98	15.73	8.03
7/9/2024	9:15:00	10.90	15.93	15.20	8.79	22.36	16.35	13.56	7.56
7/9/2024	9:30:00	7.37	10.65	15.51	9.09	19.51	16.00	10.42	6.91
7/9/2024	9:45:00	7.39	27.51	17.06	8.96	18.93	15.92	9.97	6.96
7/9/2024	10:00:00	6.71	20.16	15.91	7.92	18.60	16.04	10.68	8.12
7/9/2024	10:15:00	11.63	33.50	14.39	8.80	21.55	15.61	12.75	6.81
7/9/2024	10:30:00	5.60	19.53	15.47	7.74	22.27	15.67	14.53	7.93
7/9/2024	10:45:00	5.14	25.30	15.64	7.29	25.20	15.69	17.91	8.40
7/9/2024	11:00:00	6.31	24.39	15.41	7.08	24.57	15.36	17.50	8.29
7/9/2024	11:15:00	8.21	36.43	13.38	7.38	27.83	14.86	20.45	7.48
7/9/2024	11:30:00	7.11	32.06	12.75	6.47	27.54	14.53	21.07	8.06
7/9/2024	11:45:00	5.82	30.14	15.40	6.52	29.66	14.52	23.14	8.00
7/9/2024	12:00:00	5.03	41.88	17.02	6.50	32.98	14.79	26.48	8.30
7/9/2024	12:15:00	6.53	40.28	16.46	6.54	36.16	15.00	29.62	8.46
7/9/2024	12:30:00	6.81	22.22	17.86	6.26	33.31	15.90	27.05	9.64
7/9/2024	12:45:00	4.67	25.04	23.12	5.77	31.91	17.97	26.14	12.20
7/9/2024	13:00:00	4.08	18.61	17.43	5.42	29.60	18.38	24.18	12.96
7/9/2024	13:15:00	4.26	19.16	21.97	5.27	25.06	19.37	19.79	14.10
7/9/2024	13:30:00	7.17	25.02		5.40	22.01	20.10	16.61	14.70
7/9/2024	13:45:00	4.57	21.59	19.98	4.95	21.88	20.63	16.94	15.68
7/9/2024	14:00:00	4.45	13.40	17.43	4.91	19.55	19.20	14.65	14.30
7/9/2024	14:15:00	4.30	19.16	15.34	4.95	19.67	18.68	14.72	13.73
7/9/2024	14:30:00	5.92	15.96	13.97	5.28	19.03	16.68	13.74	11.40
7/9/2024	14:45:00	32.71	15.05	13.32	10.39	17.03	16.01	6.64	5.62
7/9/2024	15:00:00	61.86	16.94		21.85	16.10	15.01	-5.75	-6.84
7/9/2024	15:15:00	62.92	16.91	16.65	33.54	16.80	14.82	-16.74	-18.72
7/9/2024	15:30:00				40.85	16.21	14.64	-24.64	-26.21

Table 3

## Wednesday July 10, 2024

	e Time		Turbidity (NTU)		Ro	lling Average Turbidity (N	Difference (NTU)		
Date		Ambient	TB1	USB	Ambient	TB1	USB	TB1 - Ambient	USB - Ambient
7/10/2024	7:00:00	18.93	12.34	18.26	9.81	10.97	11.88	1.16	2.07
7/10/2024	7:15:00	12.56	10.43	11.14	11.66	11.31	12.11	-0.36	0.45
7/10/2024	7:30:00	5.04	10.41	11.57	11.78	11.43	12.54	-0.35	0.76
7/10/2024	7:45:00	13.86	15.03	21.27	13.50	12.37	14.85	-1.13	1.35
7/10/2024	8:00:00	20.22	12.16	13.90	14.12	12.07	15.23	-2.05	1.10
7/10/2024	8:15:00	19.21	11.72	19.30	14.18	11.95	15.44	-2.23	1.26
7/10/2024	8:30:00	26.68	12.25	29.00	17.00	12.32	19.01	-4.69	2.01
7/10/2024	8:45:00	31.09	14.62	15.06	22.21	13.16	19.71	-9.06	-2.51
7/10/2024	9:00:00	21.83	15.05	27.25	23.81	13.16	20.90	-10.65	-2.90
7/10/2024	9:15:00	20.85	17.55	19.15	23.93	14.24	21.95	-9.69	-1.98
7/10/2024	9:30:00	17.72	18.79	17.59	23.63	15.65	21.61	-7.98	-2.02
7/10/2024	9:45:00	18.05	12.99	40.10	21.91	15.80	23.83	-6.11	1.92
7/10/2024	10:00:00	13.97	25.26	15.09	18.48	17.93	23.84	-0.55	5.35
7/10/2024	10:15:00	12.67	14.25	14.66	16.65	17.77	21.32	1.12	4.67
7/10/2024	10:30:00	11.87	16.56	19.95	14.85	17.57	21.48	2.72	6.62
7/10/2024	10:45:00	11.70	13.82	14.58	13.65	16.58	20.88	2.93	7.23
7/10/2024	11:00:00	11.60		17.55	12.36	17.47	16.37	5.12	4.01
7/10/2024	11:15:00	10.64	15.61	17.46	11.69	15.06	16.84	3.37	5.15
7/10/2024	11:30:00	14.95	37.44	21.29	12.15	20.86	18.17	8.71	6.02
7/10/2024	11:45:00	11.64	34.39		12.10	25.32	17.72	13.21	5.62
7/10/2024	12:00:00	10.17	38.73	16.87	11.80	31.54	18.29	19.75	6.49
7/10/2024	12:15:00	11.11	17.54	15.08	11.70	28.74	17.68	17.04	5.97
7/10/2024	12:30:00	11.58	30.64	28.52	11.89	31.75	20.44	19.86	8.55
7/10/2024	12:45:00	10.86	15.75	23.99	11.07	27.41	21.11	16.34	10.04
7/10/2024	13:00:00	8.22	38.31	27.76	10.39	28.20	22.44	17.81	12.05
7/10/2024	13:15:00	10.03	33.48	38.02	10.36	27.15	26.67	16.78	16.31
7/10/2024	13:30:00	10.61	34.00	51.28	10.26	30.44	33.91	20.17	23.65
7/10/2024	13:45:00	7.60	33.28	42.93	9.47	30.96	36.80	21.50	27.33
7/10/2024	14:00:00	8.39	31.40	70.85	8.97	34.09	46.17	25.12	37.20
7/10/2024	14:15:00	7.45	17.72	43.14	8.82	29.98	49.24	21.16	40.43
7/10/2024	14:30:00	11.60	31.22	54.38	9.13	29.52	52.51	20.39	43.38
7/10/2024	14:45:00	6.94	26.98	43.31	8.40	28.12	50.92	19.72	42.52
7/10/2024	15:00:00	6.86	16.11	43.19	8.25	24.69	50.97	16.44	42.72
7/10/2024	15:15:00	6.16	28.01	57.27	7.80	24.01	48.26	16.21	40.45
7/10/2024	15:30:00	7.38	33.80	51.26	7.79	27.22	49.88	19.43	42.09

Table 4

## Thursday July 11, 2024

Time	Time	Turbidity (NTU)			Rc	olling Average Turbidity (I	Difference (NTU)		
Date		Ambient	TB1	USB	Ambient	TB1	USB	TB1 - Ambient	USB - Ambient
7/11/2024	7:00:00	6.58	11.30	10.75	6.05	10.20	10.54	4.15	4.49
7/11/2024	7:15:00	5.59	9.22	12.10	5.93	10.06	10.81	4.13	4.88
7/11/2024	7:30:00	4.17	10.71	17.20	5.55	10.29	12.15	4.74	6.61
7/11/2024	7:45:00	10.42	12.64	10.54	6.45	10.58	12.13	4.13	5.67
7/11/2024	8:00:00	16.27	23.66	10.47	8.61	13.51	12.21	4.90	3.61
7/11/2024	8:15:00	15.57	18.36	19.80	10.40	14.92	14.02	4.51	3.62
7/11/2024	8:30:00	12.51	17.59	17.62	11.79	16.59	15.13	4.81	3.34
7/11/2024	8:45:00	19.92	12.50	15.20	14.94	16.95	14.73	2.01	-0.21
7/11/2024	9:00:00	19.75	16.05	13.88	16.80	17.63	15.39	0.83	-1.41
7/11/2024	9:15:00	17.90	18.18	15.68	17.13	16.54	16.44	-0.59	-0.69
7/11/2024	9:30:00	16.85	19.63	14.11	17.39	16.79	15.30	-0.60	-2.09
7/11/2024	9:45:00	16.91	16.84	15.08	18.27	16.64	14.79	-1.63	-3.47
7/11/2024	10:00:00	18.61	22.00	23.46	18.00	18.54	16.44	0.54	-1.56
7/11/2024	10:15:00	18.58	37.91	14.93	17.77	22.91	16.65	5.14	-1.12
7/11/2024	10:30:00	15.70	25.54	37.31	17.33	24.38	20.98	7.06	3.65
7/11/2024	10:45:00	11.69	30.11	30.67	16.30	26.48	24.29	10.18	7.99
7/11/2024	11:00:00	11.95	29.19	30.13	15.31	28.95	27.30	13.64	11.99
7/11/2024	11:15:00	13.49	30.80	33.12	14.28	30.71	29.23	16.43	14.95
7/11/2024	11:30:00	10.42	22.79	29.43	12.65	27.69	32.13	15.03	19.48
7/11/2024	11:45:00	12.13	25.19	25.33	11.94	27.61	29.74	15.68	17.80
7/11/2024	12:00:00	11.09	19.67	30.78	11.82	25.53	29.76	13.71	17.94
7/11/2024	12:15:00	11.13	37.99	25.75	11.65	27.29	28.88	15.63	17.23
7/11/2024	12:30:00	11.11	37.76	54.44	11.18	28.68	33.15	17.50	21.97
7/11/2024	12:45:00	9.50	24.83	50.23	10.99	29.09	37.31	18.10	26.32
7/11/2024	13:00:00	7.89	25.76	56.42	10.14	29.20	43.53	19.06	33.38
7/11/2024	13:15:00	12.00	34.06	36.08	10.32	32.08	44.59	21.75	34.26
7/11/2024	13:30:00	12.22	33.27	38.21	10.54	31.13	47.08	20.59	36.53
7/11/2024	13:45:00	12.65	25.51	33.51	10.85	28.68	42.89	17.83	32.04
7/11/2024	14:00:00	15.97	33.11	45.23	12.15	30.34	41.89	18.19	29.74
7/11/2024	14:15:00	19.57	37.27	40.31	14.48	32.64	38.67	18.16	24.19
7/11/2024	14:30:00	28.01	43.95	29.93	17.68	34.62	37.44	16.94	19.75
7/11/2024	14:45:00		32.25	34.68	19.05	34.42	36.73	15.37	17.68
7/11/2024	15:00:00	20.15	36.64	36.33	20.92	36.64	37.29	15.72	16.37
7/11/2024	15:15:00	17.43	26.98	17.74	21.29	35.42	31.80	14.13	10.51
7/11/2024	15:30:00	17.43	20.32	23.85	20.75	32.03	28.50	11.27	7.75

Table 5

## Friday July 12, 2024

	Time	Turbidity (NTU)			Rc	lling Average Turbidity (N	Difference (NTU)		
7/12/2024	7:00:00	22.56	7.40	10.67	19.35	10.00	10.47	-9.36	-8.89
7/12/2024	7:15:00	17.90	8.84	10.28	19.43	9.50	10.04	-9.93	-9.39
7/12/2024	7:30:00	12.24	16.13	12.80	18.26	10.69	10.53	-7.57	-7.74
7/12/2024	7:45:00	15.91	20.27	10.93	17.71	12.72	10.89	-4.99	-6.83
7/12/2024	8:00:00	17.66	11.79	10.63	17.25	12.88	11.06	-4.37	-6.19
7/12/2024	8:15:00	16.99	16.24	11.12	16.14	14.65	11.15	-1.49	-4.99
7/12/2024	8:30:00	20.72	12.63	10.84	16.71	15.41	11.26	-1.29	-5.44
7/12/2024	8:45:00	24.76	15.67	12.93	19.21	15.32	11.29	-3.89	-7.92
7/12/2024	9:00:00	35.58	13.00	12.60	23.14	13.87	11.62	-9.28	-11.52
7/12/2024	9:15:00	49.14	18.68	13.64	29.44	15.24	12.23	-14.19	-17.21
7/12/2024	9:30:00	49.17	23.20	13.61	35.87	16.64	12.72	-19.24	-23.15
7/12/2024	9:45:00	36.62	27.40	13.78	39.05	19.59	13.31	-19.46	-25.74
7/12/2024	10:00:00	28.78	23.54	17.21	39.86	21.16	14.17	-18.70	-25.69
7/12/2024	10:15:00	29.88	25.04	14.68	38.72	23.57	14.58	-15.15	-24.13
7/12/2024	10:30:00	31.11	22.47	16.62	35.11	24.33	15.18	-10.78	-19.93
7/12/2024	10:45:00	25.50	24.58	13.24	30.38	24.60	15.11	-5.77	-15.27
7/12/2024	11:00:00	25.06	24.69	13.97	28.07	24.06	15.14	-4.00	-12.92
7/12/2024	11:15:00	25.77	0.00	29.91	27.46	19.35	17.68	-8.11	-9.78
7/12/2024	11:30:00	25.69	0.00	19.82	26.63	14.35	18.71	-12.28	-7.91
7/12/2024	11:45:00	25.33	0.00	17.44	25.47	9.85	18.88	-15.62	-6.59
7/12/2024	12:00:00	26.98		23.15	25.77	6.17	20.86	-19.59	-4.91
7/12/2024	12:15:00	23.82		20.41	25.52	0.00	22.15	-25.52	-3.37
7/12/2024	12:30:00	28.81		14.23	26.13	0.00	19.01	-26.13	-7.12
7/12/2024	12:45:00	26.34		22.96	26.26	0.00	19.64	-26.26	-6.62
7/12/2024	13:00:00	23.98		14.36	25.99		19.02		-6.97
7/12/2024	13:15:00	28.86		20.29	26.36		18.45		-7.91
7/12/2024	13:30:00	20.09		12.39	25.62		16.84		-8.77
7/12/2024	13:45:00	22.91		15.03	24.44		17.00		-7.43
7/12/2024	14:00:00	17.98		22.50	22.76		16.91		-5.85
7/12/2024	14:15:00	9.32		10.44	19.83		16.13		-3.70
7/12/2024	14:30:00	17.00		11.72	17.46		14.41		-3.05
7/12/2024	14:45:00	18.59		13.70	17.16		14.68		-2.48
7/12/2024	15:00:00	20.92		15.47	16.76		14.76		-2.00
7/12/2024	15:15:00	17.08		30.27	16.58		16.32		-0.26
7/12/2024	15:30:00	18.04		38.72	18.33		21.98		3.65