WEEKLY PROGRESS REPORT
RTA2 REMEDIAL CONSTRUCTION

GOWANUS CANAL SUPERFUND SITE
BROOKLYN, NEW YORK

PERIOD: July 15, 2024, to July 19, 2024

Date of Report: August 1, 2024

Submitted by:
Dave Himmelheber, Ph.D., P.E.
Gowanus Canal Project Coordinator

WEEKLY PROGRESS REPORT

RTA2 – Gowanus Canal Superfund Site
USEPA Unilateral Administrative Orders
Docket No. CERCLA-02-2019-2010
Docket No. CERCLA-02-2020-2003

Weekly Progress Report No. 006
Period 7/15/2024 to 7/19/2024

Submittal Date: August 1, 2024

This weekly progress report, which documents remedial activities completed at the Gowanus Canal Superfund Site during the reporting period, has been submitted to the U.S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation pursuant to Section X, Paragraph 73 of Unilateral Administrative Order with docket number CERCLA 02-2019-2010, as amended, and Section X, Paragraph 64 of Unilateral Administrative Order with docket number CERCLA 02-2020-2003, and in response to EPA's request for weekly progress reports as detailed in the EPA Project Manager's e-mail to the Project Coordinator, dated August 14, 2020.

RTA2 Activities Conducted During Reporting Week

- **595-659 Smith Street Staging Site**
  - Safety Officer conducted daily Toolbox Talks along with crew stretch and flex exercises;
  - Superintendent reviewed the plan of the day and specific safety issues with the crew daily;
  - Housekeeping and site maintenance; and
  - Continued monitoring erosion and sediment controls.

- **Gowanus Canal Activities**
  - Access dredging and debris removal:
    - Access dredging in TB-6 (CESP material);
    - Landed the Spanky DS Barge;
    - Continued transloading Moni Hoppers (loads 5-10) to the Wheezer (H-2-CESP);
    - Shipped the Wheezer to the Clean Earth Facility for processing (~825 tons);
    - Transloaded Mini Hoppers (loads 11-14) to the Spanky (H-3-CESP)
    - Pumped water from the Wheezer, Spanky and Mini Hoppers to the DWTS;
    - Water Samples taken from the Influent and Effluent tanks for analysis;
  - Probing of proposed bulkhead locations:
    - Probing and obstruction delineation at Bond Street end, 110 5th Street and 148 3rd Street.
  - Continued project support activities such as air and noise monitoring;
  - Monitoring of optical monitoring prisms along the canal; and
  - Conducted weekly manual survey up the Canal.

- **Staten Island Yard**
  - No activity

- **Construction Quality Control**
  - Plans reviewed this week with the superintendent and crews included:
    - Site Preparation Work Plan;
    - Probing for Obstructions Work Plan;
    - Vibration Monitoring Work Plan;

- Dredge Work Plan; and
- Dredge Water Treatment Work Plan,

- **Construction Quality Assurance**
  - The following RTA2 CQA activities were performed this week:
    - CQA of work plans, review of submittals, bulkhead monitoring data, contractor daily field reports and contract plans and specifications;
    - Continued monitoring of RTA2 mobilization activities;
    - CQA of bulkhead probing activities. Obstruction tracking, production tracking and contractor adherence to specifications; and
    - CQA of access dredging and obstruction investigation. Material tracking, production tracking and contractor adherence to specifications.

- **Air Monitoring**
  - The monitoring network is comprised of a meteorological tower and two (2) air monitoring stations within the Staging Area, located at 659 Smith Street, and fifteen 15 perimeter air monitoring stations in the RTA2 portion of the canal.
  - There were no occurrences of TVOC or PM10 concentrations above Action Levels (CAAL) during non-project or project related activities.
  - Site odor surveys were conducted at least once daily at all monitoring stations during workdays this week, and at least twice daily at Stations 202, 205, 207, 211, 212, 213, 214, 215, and 216 near active remediation. During these surveys no occurrences of odors were recorded above a "1" on the odor scale.
  - There were no periods of PM10 monitoring instrument downtime during the monitoring period.
  - *Refer to Appendix C for Weekly Community Air Monitoring reports.*

- **Movement and Vibration Monitoring**
  - Project related activities conducted during the monitoring period that could have influenced movement and vibration monitoring were bulkhead probing and debris removal and dredging in TB6.
  - Non-project related activities conducted during the reporting period that could have influenced movement and vibration monitoring were Upland activities by the DEP at the Salt Lot properties.
  - Vibration monitoring was conducted at the properties adjacent to the probing activities. All results were 0.01 to 0.06 in/sec.
  - The following trends have been identified: 37 9th Street parking area bulkhead, 76 6th Street and 42 2nd St. bulkhead, 58 2nd Avenue, and 110 5th Street.
  - Optical monitoring alerts over >0.25" during the monitoring period were noted as follows:
  - 3rd St Bridge: 3 RD 01, 3 RD 02 and 3 RD 04. These alerts were deemed unrepresentative of actual bridge movement and were attributed to thermal effects- rapid heating and cooling- on the optical monitors, resulting in anomalous alerts.
  - I278 Bridge: B278-02. This alert was deemed unrepresentative of actual bridge movement and was attributed to thermal effects- rapid heating and cooling- on the optical monitors, resulting in anomalous alerts.
  - 9th St Bridge B9-L4374, B9-L4416, B9-L4484, B9-L4486, B9-L4520, B9-L4525, B9-L4546-6, BR-L4546, B9-L4546-2, B9-R4489, B9-R4514, B9-R4526, B9-R4540 and B9-R4548. These alerts were deemed unrepresentative of actual bridge movement and were

attributed to thermal effects- rapid heating and cooling- on the optical monitors, resulting in anomalous alerts.

- Hamilton Avenue Bridge: BH-01, BH-02, BH-03, BH-04, BH-05 and BH-06. These alerts were deemed unrepresentative of actual bridge movement due to momentary interference between AMTS and prisms.
- 68 5th Street: BD-R3628, BD-3648. These alerts were deemed unrepresentative of actual bridge movement due to momentary interference between AMTS and prisms.
- 453 Smith Street: R4076 and R4379. These alerts were deemed unrepresentative of actual bridge movement due to momentary interference between AMTS and prisms.
- 427 Smith Street: R4739. The optical monitor was disturbed by being bumped by on-water operations. The optical monitor was readjusted.
- 42 2nd Street: Trend 0.137 inch southwest with no loss in elevation at prism 7T-L325 with less movement as you move away from the prism.
- 122 5th: 6T-L535. This alert was deemed unrepresentative of actual bridge movement due to momentary interference between AMTS and prisms.
- 76 6th Street: BD-L3762 and BD-L3831. These alerts were deemed unrepresentative of actual movement due to momentary interference between AMTS and prisms. Trend at failed section continues to 0.67 inch southwest with a loss in elevation of 1.117 inches. Maximum movement at prism 7T-L203, displacement less as you move from this point.
- 58 2nd Avenue: 6T-L661, 6T-L784A and 6T-7848. These alerts were deemed unrepresentative of actual bridge movement due to momentary interference between AMTS and prisms.
- 1 11th Street: L4811 and L4857: This alert was deemed unrepresentative of actual bridge movement due to momentary interference between AMTS and prism.
- 37 9th Street 7T-R316, 7T-RBD-L4065, BD-L4190, BD-L4372 and BD-L4402. These alerts were deemed unrepresentative of actual movement due to momentary interference between AMTS and prisms. Trend 0.35-inch northeast with a comparable loss in elevation at prism 7T-R165 with less movement as you move away from the prism. A second trend 0.24 inches with a comparable loss in elevation at 7T-R340 with less movement as you move away from the prism.
- *Refer to Appendix D for the Weekly Optical and Vibration Monitoring Report.*

- **Water Quality Monitoring**
  - During the week of July 15, 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.
  - 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.
  - A rainfall event which triggered a CSO discharge occurred on Wednesday, July 17 from 21:30PM to Thursday, July 18 at 01:30AM.
  - 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.
  - During maintenance activities on Monday July 15, heavy biofilm was noted on both buoys.

- *Refer to Appendix E for the Weekly Water Quality Monitoring Report*

- **Noise Monitoring**
  - Conducted noise level monitoring using a PCE-322A near the probing operations
  - No exceedances, of the 80 dBA action level, were attributed to RTA2 operations. Exceedances appeared to be from upland construction drilling operations and the Citizens site.
  - *Refer to Appendix F for the Daily Noise Monitoring Report*

- **Cultural Resources Monitoring**
  - No cultural resources memo was submitted during this reporting period.

Anticipated Activities – Week of July 22, 2024

- **595 Smith Street Site**
  - Continue air monitoring;
  - Continue baseline property condition assessments (421 Bond Street);
  - Continue noise data collection during construction;
  - Continue operation of the Transloading Barges; and
  - Continue air monitoring of dust levels.
- **Gowanus Canal**
  - Probing of proposed bulkhead locations:
    - Continue probing for obstructions;
  - Continue access dredging and debris removal
    - Remove obstructions at 160 3rd St., 176 3rd St. and 186 3rd St.
- **Construction Quality Assurance**
  - Continue monitoring activities and performing follow-up inspections verifying conformance with specification;
  - CQA of bulkhead probing activities, tracking productivity, and documentation of obstructions encountered;
  - CQA of access dredging and debris removal activities;
  - Completion of daily field reports and daily activity summaries; and
  - Continue monitoring of RTA2 mobilization activities.

Health and Safety Update

- No health and safety issues were reported.

Delays Encountered or Anticipated

- The Trust continues to negotiate property access to perform a condition assessment at 421 Bond Street and the Former Pathmark building. A delay in performing these assessments risks delay to the project schedule. Potential delays related to coordination with property owners for bulkhead support design-related matters are captured in the monthly reports capturing remedial design activities.

Ongoing Coordination with EPA

- On July 12, 2024, the Trust forwarded two memorandums that had been prepared by the Trust's cultural resources consultant, which document debris removal from TB6 and access dredging in the front of the staging site. No items from RTA2 dredging have been identified as objects of local interest and are recommended to be discarded.
- Daily progress updates on CQA activities in RTA2 are provided to EPA's oversight contractor, Jacobs.
- On July 16, 2024, EPA received notice that Clean Earth Dredging Technologies LLC Claremont received approval for initial determination in the OSR program.

Attachments:

Appendix A: Photographs

Appendix B: RTA2 4-Week Construction Look Ahead Schedule

Appendix C: Weekly Community Air Monitoring Reports

Appendix D: Weekly Optical and Vibration Monitoring Report.

Appendix E: Weekly Water Quality Monitoring Report

Appendix F: Weekly Noise Monitoring Report

Appendix A

Photographs

Photo No. 001

Date: July 15, 2024

Description: Wheezer DS Barge Arriving in Gowanus

Photo No. 002

Date: July 16, 2024

Description: Transloading Mini-3 (Load 9) to the Wheezer

Photo No. 003

Date: July 17, 2024

Description: Post Loading Inspection of the Wheezer

Photo No. 004

Date: July 18, 2024

Description: Mini-3 in TB-7

Photo No. 005

Date: July 19, 2024

Description: Loading Mini-3 in TB-7

Photo No. 006

Date: July 19, 2024

Description: Transloading Mini-5 (Load 13) into the Spanky

Appendix B

RTA2 4-Week Construction Look Ahead Schedule

Four Week Rolling Schedule

Contractor : Cashman Dredging & Marine Contracting Co., LLC.

Data Date: 7/15/2024

Project : Gowanus Canal Remediation Target Area (RTA) 2

Meeting Date: 7/15/2024

Administrator: *de maximis*

Scheduled --------

Owner Representative: *GZA Environmental, inc.*

Actual **XXXXXX**

Owner: Gownus Environmental Remedial Trust Group (GERT)

Area/Concern	SAFETY CRITICAL	Bridge Condition	Activity Description	Start Date	Finish Date	Revised Start Date	Revised Finish Date	Delta Between Original and Revised	Reasons for Delay	Remaining Duration (Days)	Percent Complete	8-Jul M	9-Jul T	10-Jul W	11-Jul Th	12-Jul F	13-Jul S	14-Jul Su	15-Jul M	16-Jul T	17-Jul W	18-Jul Th	19-Jul F	20-Jul S	21-Jul Su	22-Jul M	23-Jul T	24-Jul W	25-Jul Th	26-Jul F	27-Jul S	28-Jul Su	29-Jul M	30-Jul T	31-Jul W	1-Aug Th	2-Aug F	3-Aug S	4-Aug Su	5-Aug M	6-Aug T	7-Aug W	8-Aug Th	9-Aug F	10-Aug S	11-Aug Su
7/15/2024																																													
			RTA1 Construction																																											
Project		NA	RTA1 Post Construction Property Condition Assessment			22-Jan-24	16-Aug-24			32	85%	X	X	X	X	X			X	-	-	-	-			-	-	-	-	-			-	-	-	-	-			-	-	-	-	-		
North Pool		NA	Complete removal of CSO deposited material between Sta 0+00 to 1+00			26-Jun-24	8-Jul-24			0	100%	X																																		
North Pool		NA	Complete placement of CLSM and Concrete in all remaining Areas			9-Jul-24	9-Jul-24			0	100%		X																																	
North Pool		NA	Clean out Influent Tanks on WT Barge			9-Jul-24	9-Jul-24			0	100%		X							-																										
North Pool		NA	Mobilize 5-man dive team, remove material deposits in Flushing Tunnel 75-ft in from opening			10-Jul-24	22-Jul-24			7	42%			X	X	X			X	-	-	-	-			-																				
North Pool		NA	Powerwash staining on concrete wall and sheet pile wall Sta 0+75 to 1+85			23-Jul-24	24-Jul-24			9	0%																-	-																		
North Pool		NA	Cleanup pass in front of Flushing Tunnel			25-Jul-24	25-Jul-24			10	0%																		-																	
North Pool		NA	Demob Water Treatment Equipment, remove and stack hoses			26-Jul-24	29-Jul-24			14	0%																			-			-													
Off Site		NA	Decon Water Treatment equipment			30-Jul-24	2-Aug-24			18	0%																							-	-	-	-									
North Pool			Final Diver Inspection of Flushing Tunnel			30-Jul-24	30-Jul-24			15	0%																							-												
3rd St Bridge		NA	Dive Investigation at 3rd St bridge sub cable, mark cable location			31-Jul-24	31-Jul-24			16	0%																								-											
Hamilton Ave Bridge		NA	Dive investigation at Hamilton Ave bridge sub cable, mark cable location			31-Jul-24	31-Jul-24			16	0%																								-											
North Pool		NA	Place gravel over ACB mats Sta 0+00 to 3+00			1-Aug-24	1-Aug-24			17	0%																									-										
RTA1 Project		NA	Install tie-bars on USB bar screens			24-Jun-24	29-Jul-24			14	0%	X	X	X	X	X			X	-	-	-	-			-	-	-	-	-			-													
RTA1 Project		NA	Remove RTA1 anchor points			2-Aug-24	5-Aug-24			21	0%																										-				-					
RTA1 Project		NA	Install balance of Monopile fenders/ weld cap plate			6-Aug-24	7-Aug-24			23	0%																															-	-				
RTA1 Project		NA	Install Leftkovitz Dock			8-Aug-24	8-Aug-24			24	0%																																	-			
			RTA2 Construction																																										
RTA2 Project		NA	Pre-construction Baseline Property Condition Assessments (421 Bond)			10-Apr-24	26-Jul-24			11	90%	X	X	X	X	X			X	-	-	-	-			-	-	-	-	-																	
RTA2 Project		NA	Installation of Bulkhead/Structure Monitoring Equipment			10-Apr-24	26-Jul-24			11	90%	X	X	X	X	X			X	-	-	-	-			-	-	-	-	-																	
RTA2 Project		NA	Install piping, commission WT system, sample test effluent and submit results			20-May-24	8-Jul-24			0	100%	X																																		
RTA2 Project		NA	Move on location, conduct probing operation			20-Jun-24	26-Jul-24			11	69%	X	X	X	X	X			X	-	-	-	-			-	-	-	-	-																	
RTA2 Project		NA	Prepare / Senebogen Transloading Platform			20-May-24	3-Jul-24			0	100%																																			
RTA2 Project		NA	Mobilize Sennebogen barge to Project Site			5-Jul-24	5-Jul-24			0	100%																																			
RTA2 Project		NA	Install gangway and set up influent and effluent lines			5-Jul-24	9-Jul-24			0	100%	X	X																																	
RTA2 Project		NA	Receive Cyrus T water barge and DS material barge			9-Jul-24	9-Jul-24			0	100%		X							-																										
RTA2 Project		NA	Locate to Turning Basin 6, conduct debris removal			28-Jun-24	5-Jul-24			0	100%																																			
RTA2 Project		NA	Remove CESP sediments in Turning Basin 6			8-Jul-24	15-Jul-24			0	100%	X	X	X	X	X			X																											
RTA2 Project		NA	Relocate to Turning Basin 7, remove CESP sediments			15-Jul-24	19-Jul-24			4	0%								-	-	-	-	-																							
RTA2 Project		NA	Relocate to Turning Basin 6, remove Waste Management material			22-Jul-24	24-Jul-24			9	0%															-	-	-																		
RTA2 Project			Remove obstructions @ 160 3rd St; 176 3rd St; 186 3rd St			25-Jul-24	26-Jul-24			11	0%																		-	-																	
RTA2 Project			Relocate to Turning Basin 7, remove PCB materials in dredge prism			29-Jul-24	6-Aug-24			22	0%																						-	-	-	-	-			-	-					
RTA2 Project			Remove obstructions @ 37 9th St; 42 2nd Ave			7-Aug-24	14-Aug-24			30	0%																																	-	-	-		

	CW	Prev Wk	WK 1	WK 2	WK 3	
Management	12	12	12	12	12	
Craft Labor	16	16	16	16	16	
Sub-Contractor	4	4	4	4	4	
TOTAL	32	32	32	32	32	

Appendix C

Weekly Community Air Monitoring Reports

Gowanus Canal Community Air Monitoring Program

Weekly Air Monitoring Summary Report #5

June 13, 2024 through
July 19, 2024

Gowanus Canal Remediation-Target Area 2

Prepared For:

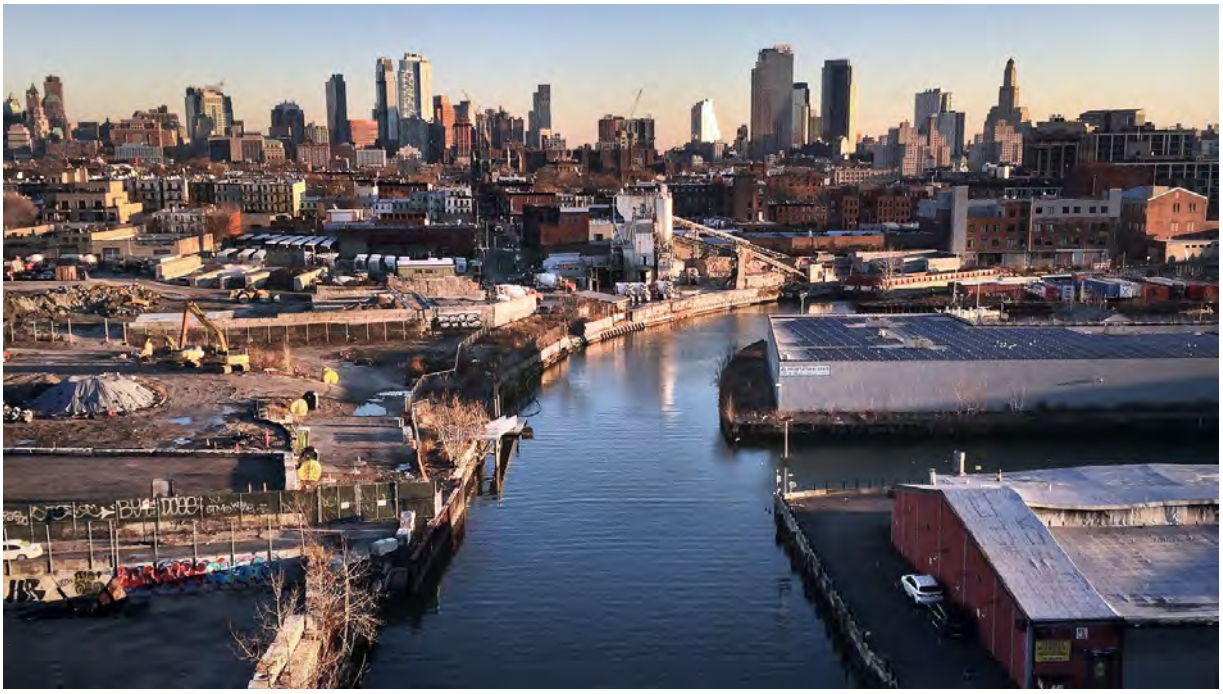
Gowanus Environmental Remediation Trust #2

Prepared By:

TRC
1430 Broadway, 10th Floor
New York, NY 10018

Prepared by: Dylan Keenan

Reviewed and Approved by: Gary Hunt



Executive Summary

In accordance with the Final Gowanus Canal Air Monitoring Plan, May 2024 (Plan), TRC managed operations of the Community Air Monitoring Network surrounding remediation activities associated with Remedial Target Area 2 (RTA2) at the Gowanus Canal in Brooklyn, NY. The current monitoring network is comprised of a meteorological tower and two (2) air monitoring stations within the Staging Area, located at 659 Smith Street, plus 15 perimeter air monitoring stations in RTA2 of the canal. Figure 1 depicts the locations of monitoring stations and Table 1 provides descriptions of each monitoring location in the RTA2 network. The following report summarizes site air monitoring activities for the Week 5 monitoring period covering July 13th, 2024, through July 19th, 2024.

VOC and PM_{10} were monitored continuously as fifteen-minute average concentrations. Average and maximum TVOC concentrations for the week are displayed in Figures 2 and 3, respectively, and average and maximum PM_{10} concentrations are displayed in Figures 4 and 5, respectively. Additionally, odor surveys were conducted daily at all station locations while real-time measurements of hydrogen sulfide and ammonia were also recorded. The maximum values recorded for each of these parameters are shown in Table 2. Alert, Action Levels, and response actions are defined in the Plan.

There were no occurrences of TVOC or PM_{10} concentrations above Action Levels (CAAL) during non-project or project related activities.

Site odor surveys were conducted at least once daily at all monitoring stations during workdays this week, and at least twice daily at Stations 202, 205, 207, 211, 212, 213, 214, 215, and 216 near active remediation. During these surveys no occurrences of odors were recorded above a “1” on the odor scale.

Daily Reports summarizing results of continuous PM_{10} and TVOC monitoring, including maximum and average daily concentrations, are attached to this report.

Meteorological parameters including wind speed, wind direction, temperature and barometric pressure were recorded continuously. Table 3 summarizes the daily averages of these parameters recorded on-site.

From Wednesday through Thursday, July 17th – July 18th, TRC conducted the weekly sampling for VOCs, in accordance with the Plan. The samples were shipped to Con-Test Analytical Laboratory; results and data validation are pending.

There were no periods of TVOCs or PM_{10} monitoring instrument downtime during the RTA2 Week 5 monitoring period.

Figure 1: RTA2 Locations

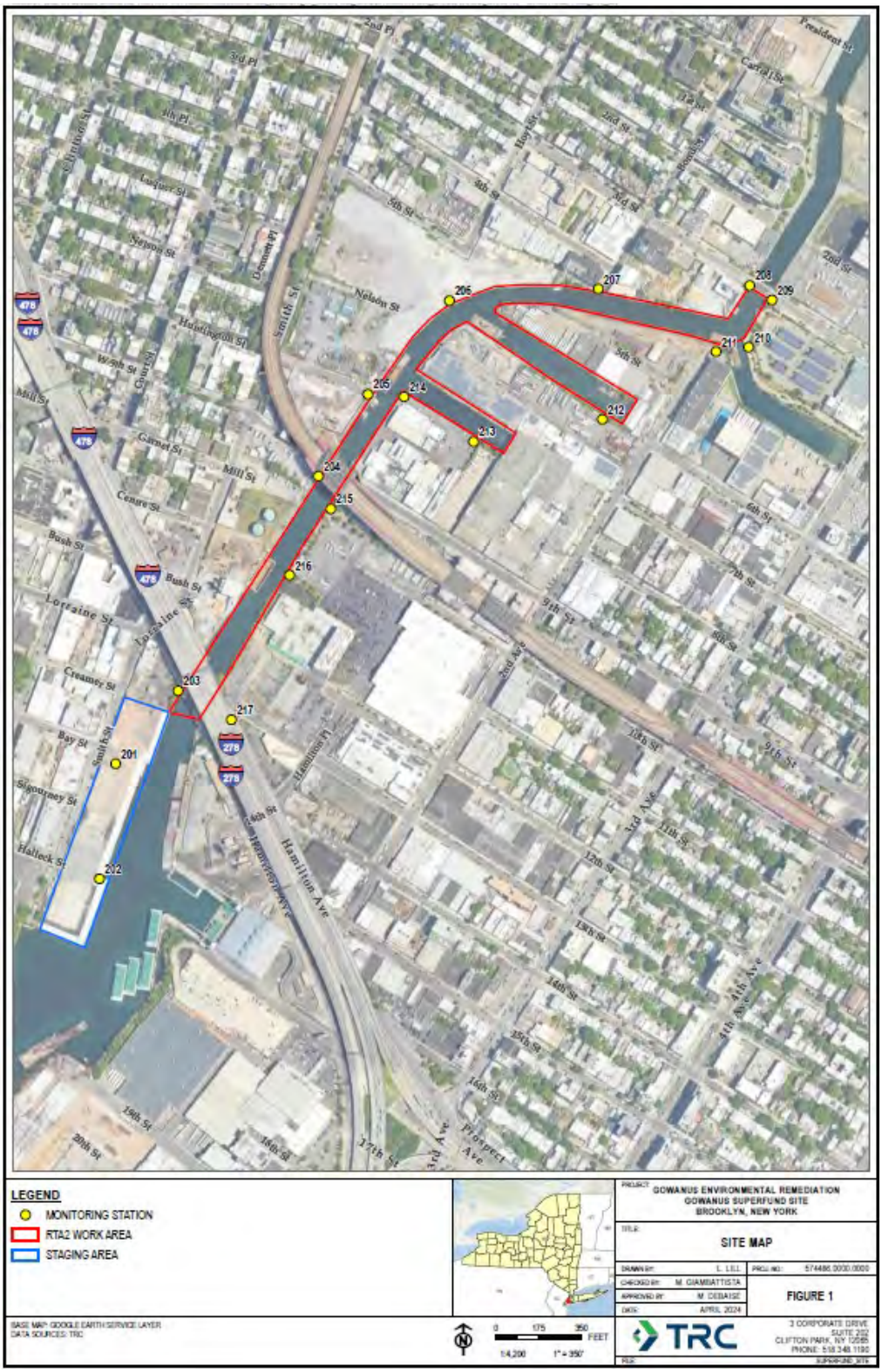


Table 1: Station Location Descriptions

Site Number	Latitude N	Longitude W	Location Description
201	40°40'14.86"	73°59'59.09"	Staging Area, near Bay Street
202	40°40'10.20"	73°59'59.95"	Staging Area, near met station
203	40°40'17.81"	73°59'55.77"	West Side of Hamilton Bridge
204	40°40'26.50"	73°59'48.32"	Bridge house at 9th Street Bridge
205	40°40'29.81"	73°59'45.69"	Huntington Street Promenade
206	40°40'33.60"	73°59'41.36"	National Grid Tunnel Entrance at Citizen's Site
207	40°40'34.08"	73°59'33.45"	Dead end at Bond Street
208	40°40'34.21"	73°59'25.41"	SW Corner 3rd Street Bridge
209	40° 40' 33.63"	73° 59' 24.23"	SE Corner 3rd St. Bridge
210	40°40'31.72"	73°59'25.47"	Whole Foods Promenade at TB4
211	40°40'31.54"	73°59'27.20"	Dead end at 2nd Ave
212	40°40'28.80"	73°59'33.24"	Parking Lot at 36 2nd Ave
213	40°40'27.89"	73°59'40.08"	Parking Lot at Emdad Construction
214	40°40'29.71"	73°59'43.77"	Parking Lot of Heights Woodworking
215	40°40'25.17"	73°59'47.66"	NW corner Lowe's Parking at 9th St. Bridge
216	40°40'22.49"	73°59'49.85"	SW corner Lowe's Parking at TB11
217	40°40'16.64"	73°59'52.94"	East Side of Hamilton Bridge

Figure 2: Average 15-Minute TVOC Concentrations

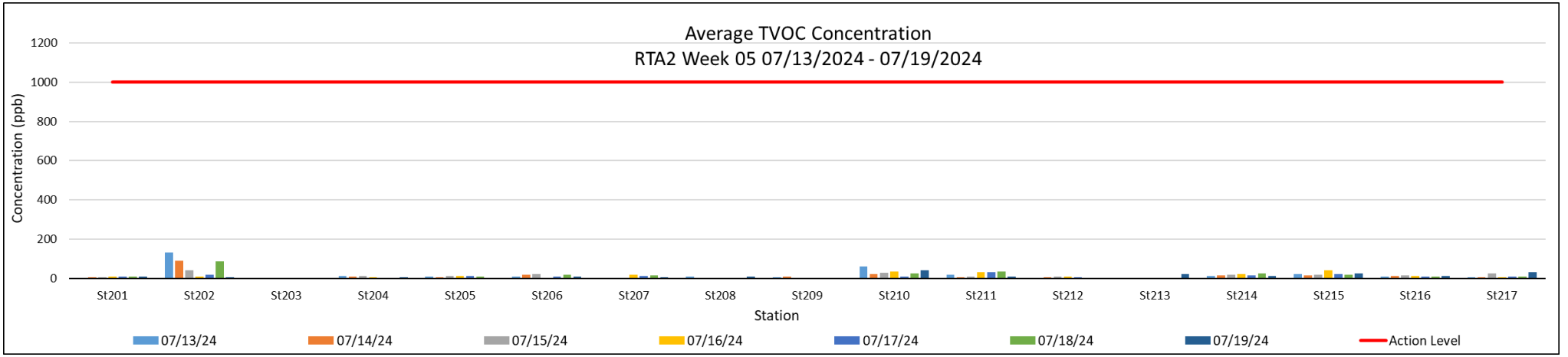


Figure 3: Maximum 15-Minute TVOC Concentrations

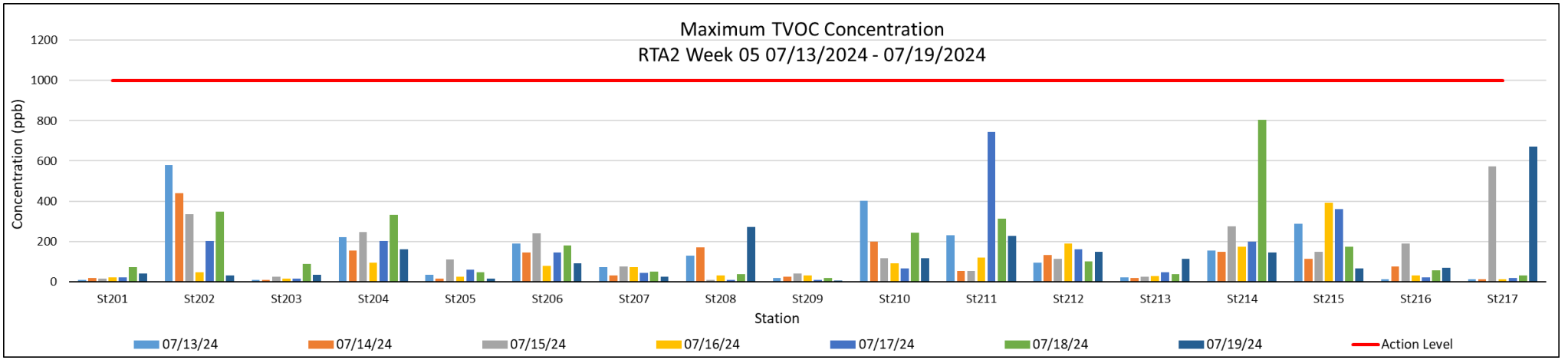


Figure 4: Average 15-Minute PM_{10} Concentrations

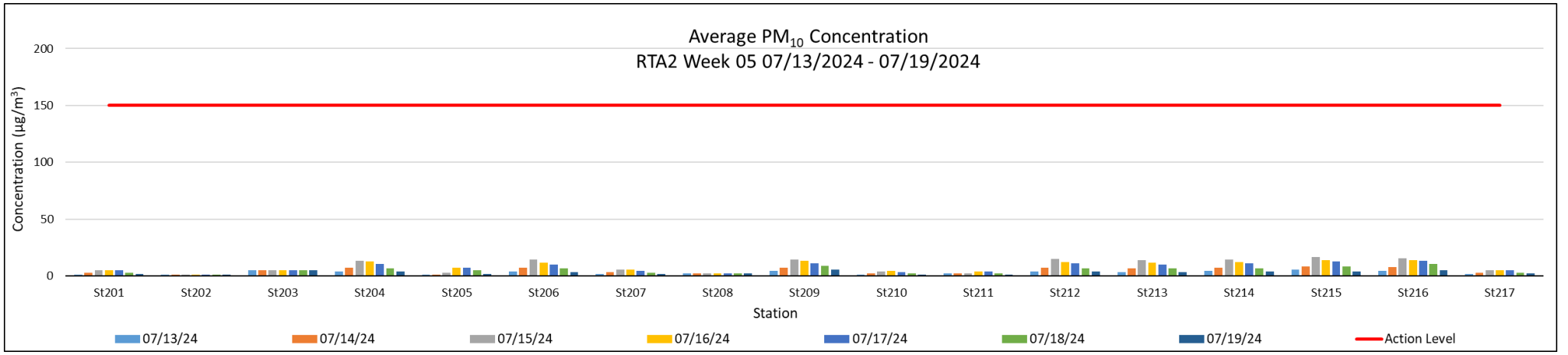


Figure 5: Maximum 15-Minute PM_{10} Concentrations

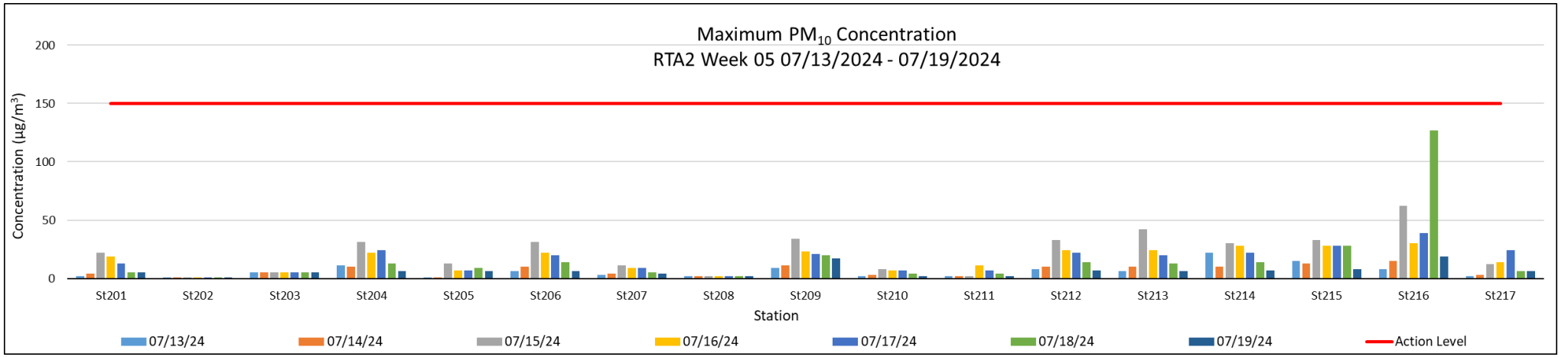


Table 3: Maximum Recorded Results from Odor Surveys & Periodic Sampling for Hydrogen Sulfide and Ammonia

Station #	Odor Scale[1]	Hydrogen Sulfide (ppb)[2]	Ammonia (ppb)[3]	Max Concentrations Measured[4]	
				Date	Time
201	0	< 3	< 10	None to report	
202	0	< 3	< 10	None to report	
203	0	< 3	< 10	None to report	
204	0	< 3	< 10	07/17/24	08:09
205	1	4	< 10	07/17/24	08:09
206	1	< 3	< 10	07/17/24	09:20
207	1	5	< 10	07/16/24	08:20
208	1	6	< 10	07/16/24	10:03
209	1	4	< 10	07/19/24	09:21
210	1	4	< 10	07/19/24	09:38
211	1	5	< 10	07/19/24	09:47
212	1	4	< 10	07/19/24	14:02
213	0	< 3	< 10	None to report	
214	1	4	< 10	07/18/24	08:35
215	1	3	< 10	07/19/24	08:30
216	0	< 3	< 10	None to report	
217	0	< 3	< 10	None to report	

[1] Odor observations are classified following the odor classification scale defined in Section 5.5 of the Final Community Air Monitoring Plan. If odors are observed at a "2" or above on the scale, odor control measures will be implemented.
[2] The detection limit of the Jerome Meter, used to collect hydrogen sulfide data, is 3 ppb. Non-detected concentrations are shown as < 3.
[3] The detection limit of the ATO-SKY2000, used to collect ammonia data, is 10 ppb. Non-detected concentrations are shown as < 10.
[4] The date and time of maximum concentrations of hydrogen sulfide and or ammonia were detected. The odor observation included in this table is from the same period.

Table 4: Summary of On-Site Meteorological Conditions

Meteorological Parameters	07/13/24	07/14/24	07/15/24	07/16/24	07/17/24	07/18/24	07/19/24
Wind Direction (from)	SSW	SSW	SSW	SW	SW	NW	W
Wind Speed (mph)	4.2	5.4	6.5	7.6	5.4	5.1	5.7
Temperature (°F)	77.9	80.4	82.7	85.3	80.0	78.3	75.5
Humidity (%)	85.7	72.8	73.5	64.8	77.6	68.2	54.5
Barometric Pressure (inHg)	30.04	29.93	29.76	29.70	29.73	29.80	29.99

Table 5: RTA2 Week 3 VOCs Result[5,6]

Laboratory ID	2G02938-01	23G02938-02	Average Concentrations from Background Monitoring[7]
Sample ID	ST-211-7/2/24	ST-202-7/2/24	
Sample Start Date/Time	07/02/2024 11:15	07/02/2024 11:23	
Sample End Date/Time	07/03/2024 11:19	07/03/2024 11:25	
Sampling Location	Station 211	Station 202	
Contaminants of Concern (TO-15)[8]			
Benzene	0.46	1.5	0.17
Chloroform	0.11	0.55	0.05
Ethylbenzene	0.57	0.49	0.07
Methylene Chloride	< 0.35	< 0.35	0.35
Naphthalene	0.11	0.096	0.04
Toluene	1.5	1.2	0.43
m&p-Xylene	2.4	1.9	0.21
o-Xylene	1.3	1.1	0.08

[5] VOCs: Volatile Organic Compounds collected and analyzed in accordance with US EPA Method TO-15; Site Specific TVOC Action Level = 1,000 ppb

[6] Results for VOCs are expressed in units of parts per billion (ppb); non-detected results are reported as less than (<) the laboratory's analytical reporting limit.

[7] Non-detected results from background monitoring were included in average calculations, as the reporting limit value.

[8] Contaminants of Concern (COC), a subset of TO-15 VOCs, are defined in Section 5.4 of the Final Community Air Monitoring Plan for the Gowanus Canal Superfund Site Remedial Target Area 1 Brooklyn, NY, February 2021.

Attachment A: Daily Reports

Gowanus Canal RTA2 Community Air Monitoring Program - Brooklyn, New York

Daily Station Report - Summary of Continuous TVOC and PM10 Concentrations

Saturday, July 13, 2024

Data Collected 00:00 - 23:45

	Station 201	Station 202	Station 203	Station 204	Station 205	Station 206	Station 207	Station 208	Station 209	Station 210	Station 211	Station 212	Station 213	Station 214	Station 215	Station 216	Station 217
TVOC (ppb)																	
Maximum Conc.	9	580	8	221	35	190	72	129	17	403	231	93	23	154	287	13	13
Average Conc.	<5	131	<5	11	8	9	<5	7	5	59	17	<5	<5	13	21	8	7
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM10 (ug/m ^{3})																	
Maximum Conc.	2	1	5	11	1	6	3	2	9	2	2	8	6	22	15	8	2
Average Conc.	1	1	5	4	1	4	2	2	4	1	2	4	3	4	5	4	1
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

TVOC: Total Volatile Organic Compounds

PM_{10}: Particulate Matter < 10 um in diameter

Maximum: The highest daily recorded 15-min average concentration

Average: The average of all recorded 15-min average concentrations each day

CAAL: The total number of recorded 15-min average concentrations above the Action Level - after background correction

Action Levels:

TVOC = 1,000 ppb

PM_{10} = 150 ug/m^3

The detection limits for PM_{10} and TVOC are 1 ug/m^3 and 5 ppb, respectively.

Non-detected concentrations are shown as < 1 ug/m^3 for PM_{10} and < 5 ppb for TVOC.

Gowanus Canal RTA2 Community Air Monitoring Program - Brooklyn, New York

Daily Station Report - Summary of Continuous TVOC and PM10 Concentrations

Sunday, July 14, 2024

Data Collected 00:00 - 23:45

	Station 201	Station 202	Station 203	Station 204	Station 205	Station 206	Station 207	Station 208	Station 209	Station 210	Station 211	Station 212	Station 213	Station 214	Station 215	Station 216	Station 217
TVOC (ppb)																	
Maximum Conc.	18	441	8	156	17	146	31	171	26	200	53	134	19	149	113	77	13
Average Conc.	6	89	<5	7	6	18	<5	<5	7	23	6	6	<5	15	14	11	5
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM10 (ug/m ^{3})																	
Maximum Conc.	4	1	5	10	1	10	4	2	11	3	2	10	10	10	13	15	3
Average Conc.	3	1	5	7	1	7	3	2	7	2	2	7	7	7	9	8	3
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

TVOC: Total Volatile Organic Compounds

PM_{10}: Particulate Matter < 10 um in diameter

Maximum: The highest daily recorded 15-min average concentration

Average: The average of all recorded 15-min average concentrations each day

CAAL: The total number of recorded 15-min average concentrations above the Action Level - after background correction

Action Levels:

TVOC = 1,000 ppb

PM_{10} = 150 ug/m^3

The detection limits for PM_{10} and TVOC are 1 ug/m^3 and 5 ppb, respectively.

Non-detected concentrations are shown as < 1 ug/m^3 for PM_{10} and < 5 ppb for TVOC.

Gowanus Canal RTA2 Community Air Monitoring Program - Brooklyn, New York

Daily Station Report - Summary of Continuous TVOC and PM10 Concentrations

Monday, July 15, 2024

Data Collected 00:00 - 23:45

	Station 201	Station 202	Station 203	Station 204	Station 205	Station 206	Station 207	Station 208	Station 209	Station 210	Station 211	Station 212	Station 213	Station 214	Station 215	Station 216	Station 217
TVOC (ppb)																	
Maximum Conc.	15	337	25	248	110	240	76	8	43	119	55	114	26	275	149	190	572
Average Conc.	6	41	<5	11	11	20	<5	<5	<5	28	10	10	<5	19	17	14	25
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM10 (ug/m ^{3})																	
Maximum Conc.	22	1	5	31	13	31	11	2	34	8	2	33	42	30	33	62	12
Average Conc.	5	1	5	13	3	14	6	2	14	4	2	15	14	14	17	15	5
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

TVOC: Total Volatile Organic Compounds

PM_{10}: Particulate Matter < 10 um in diameter

Maximum: The highest daily recorded 15-min average concentration

Average: The average of all recorded 15-min average concentrations each day

CAAL: The total number of recorded 15-min average concentrations above the Action Level - after background correction

Action Levels:

TVOC = 1,000 ppb

PM_{10} = 150 ug/m^3

The detection limits for PM_{10} and TVOC are 1 ug/m^3 and 5 ppb, respectively.

Non-detected concentrations are shown as < 1 ug/m^3 for PM_{10} and < 5 ppb for TVOC.

Gowanus Canal RTA2 Community Air Monitoring Program - Brooklyn, New York

Daily Station Report - Summary of Continuous TVOC and PM10 Concentrations

Tuesday, July 16, 2024

Data Collected 00:00 - 23:45

	Station 201	Station 202	Station 203	Station 204	Station 205	Station 206	Station 207	Station 208	Station 209	Station 210	Station 211	Station 212	Station 213	Station 214	Station 215	Station 216	Station 217
TVOC (ppb)																	
Maximum Conc.	23	46	17	95	27	78	74	30	31	93	119	189	30	175	394	32	13
Average Conc.	8	8	<5	6	11	<5	18	<5	<5	33	31	7	<5	22	42	11	6
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM10 (ug/m ^{3})																	
Maximum Conc.	19	1	5	22	7	22	9	2	23	7	11	24	24	28	28	30	14
Average Conc.	5	1	5	12	7	12	5	2	13	4	4	12	12	12	14	14	5
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

TVOC: Total Volatile Organic Compounds

PM_{10}: Particulate Matter < 10 um in diameter

Maximum: The highest daily recorded 15-min average concentration

Average: The average of all recorded 15-min average concentrations each day

CAAL: The total number of recorded 15-min average concentrations above the Action Level - after background correction

Action Levels:

TVOC = 1,000 ppb

PM_{10} = 150 ug/m^3

The detection limits for PM_{10} and TVOC are 1 ug/m^3 and 5 ppb, respectively.

Non-detected concentrations are shown as < 1 ug/m^3 for PM_{10} and < 5 ppb for TVOC.

Gowanus Canal RTA2 Community Air Monitoring Program - Brooklyn, New York

Daily Station Report - Summary of Continuous TVOC and PM10 Concentrations

Wednesday, July 17, 2024

Data Collected 00:00 - 23:45

	Station 201	Station 202	Station 203	Station 204	Station 205	Station 206	Station 207	Station 208	Station 209	Station 210	Station 211	Station 212	Station 213	Station 214	Station 215	Station 216	Station 217
TVOC (ppb)																	
Maximum Conc.	22	204	16	204	60	145	45	9	11	66	743	162	47	200	361	22	20
Average Conc.	7	18	<5	<5	12	8	12	<5	<5	10	30	7	<5	14	21	9	7
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM10 (ug/m ^{3})																	
Maximum Conc.	13	1	5	24	7	20	9	2	21	7	7	22	20	22	28	39	24
Average Conc.	5	1	5	11	7	10	4	2	11	3	4	11	10	11	13	13	5
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

TVOC: Total Volatile Organic Compounds

PM_{10}: Particulate Matter < 10 um in diameter

Maximum: The highest daily recorded 15-min average concentration

Average: The average of all recorded 15-min average concentrations each day

CAAL: The total number of recorded 15-min average concentrations above the Action Level - after background correction

Action Levels:

TVOC = 1,000 ppb

PM_{10} = 150 ug/m^3

The detection limits for PM_{10} and TVOC are 1 ug/m^3 and 5 ppb, respectively.

Non-detected concentrations are shown as < 1 ug/m^3 for PM_{10} and < 5 ppb for TVOC.

Gowanus Canal RTA2 Community Air Monitoring Program - Brooklyn, New York

Daily Station Report - Summary of Continuous TVOC and PM10 Concentrations

Thursday, July 18, 2024

Data Collected 00:00 - 23:45

	Station 201	Station 202	Station 203	Station 204	Station 205	Station 206	Station 207	Station 208	Station 209	Station 210	Station 211	Station 212	Station 213	Station 214	Station 215	Station 216	Station 217
TVOC (ppb)																	
Maximum Conc.	74	349	90	333	46	179	51	36	18	244	315	102	39	803	175	56	31
Average Conc.	10	85	<5	<5	9	18	15	<5	<5	25	35	<5	<5	25	17	10	7
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM10 (ug/m^3)																	
Maximum Conc.	5	1	5	13	9	14	5	2	20	4	4	14	13	14	28	127	6
Average Conc.	3	1	5	7	5	7	3	2	9	2	2	7	6	6	8	11	3
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

TVOC: Total Volatile Organic Compounds

PM_{10}: Particulate Matter < 10 um in diameter

Maximum: The highest daily recorded 15-min average concentration

Average: The average of all recorded 15-min average concentrations each day

CAAL: The total number of recorded 15-min average concentrations above the Action Level - after background correction

Action Levels:

TVOC = 1,000 ppb

PM_{10} = 150 ug/m^3

The detection limits for PM_{10} and TVOC are 1 ug/m^3 and 5 ppb, respectively.

Non-detected concentrations are shown as < 1 ug/m^3 for PM_{10} and < 5 ppb for TVOC.

Gowanus Canal RTA2 Community Air Monitoring Program - Brooklyn, New York

Daily Station Report - Summary of Continuous TVOC and PM10 Concentrations

Friday, July 19, 2024

Data Collected 00:00 - 23:45

	Station 201	Station 202	Station 203	Station 204	Station 205	Station 206	Station 207	Station 208	Station 209	Station 210	Station 211	Station 212	Station 213	Station 214	Station 215	Station 216	Station 217
TVOC (ppb)																	
Maximum Conc.	41	33	35	161	14	92	24	271	6	118	229	150	114	146	68	70	670
Average Conc.	8	5	<5	6	<5	8	7	8	<5	39	10	<5	20	12	24	10	30
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM10 (ug/m^3)																	
Maximum Conc.	5	1	5	6	6	6	4	2	17	2	2	7	6	7	8	19	6
Average Conc.	2	1	5	4	2	3	1	2	6	1	1	4	3	4	4	5	2
# of Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
# of Non-Project Related CAAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

TVOC: Total Volatile Organic Compounds

PM_{10}: Particulate Matter < 10 um in diameter

Maximum: The highest daily recorded 15-min average concentration

Average: The average of all recorded 15-min average concentrations each day

CAAL: The total number of recorded 15-min average concentrations above the Action Level - after background correction

Action Levels:

TVOC = 1,000 ppb

PM_{10} = 150 ug/m^3

The detection limits for PM_{10} and TVOC are 1 ug/m^3 and 5 ppb, respectively.

Non-detected concentrations are shown as < 1 ug/m^3 for PM_{10} and < 5 ppb for TVOC.

Appendix D

Weekly Optical and Vibration Monitoring Report

RTA2 Weekly Instrument Monitoring Report

Week of:	**07.15.24 to 07.19.24**
Work Performed this Week:	CDMC continued probing operation and supported prism installation operation. DEP subsurface investigations at the Salt Lot properties.
Executive Summary:	Trend at 37 9th Street parking area bulkhead. Trend identified at 76 6th Street and 42 2nd Street bulkhead. Vibration from probing operation was minimal approximately 0.01 to 0.06 in/sec.

Summary of Weekly Monitoring Results:

OM = Optical Monitoring of Optical Prisms

CM = Crack Monitoring by Crack Gauges on Structures

VM = Vibration Monitoring Readings (See the attached report)

IR = Inclinometer Readings

3rd Street Bridge	**Total Optical Monitoring Points = 10**
OM Alerts >0.25":	3 RD 01, 3 RD 02, 3 RD 04
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
	2) Data consistent with historical data trends at these locations.
	3) Trends attributed to thermal conditions.
	4) Owner, Engineer, and NYC DOT informed of cumulative movement >0.25" as of June 2022.
	5) Visual inspection of bridge dated 11.20.2018.
CM Comments:	
VM Comments:	
IR Comments:	

I 278 Bridge	**Total Optical Monitoring Points = 3**
OM Alerts >0.25":	B278-02
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
CM Comments:	
VM Comments:	
IR Comments:	

9th Street Bridge	**Total Optical Monitoring Points = 23**
OM Alerts >0.25":	B9-L4374, B9-L4416, B9-L4484, B9-L4486, B9-L4520, B9-L4525, B9-L4546-6, BR-L4546, B9-L4546-2, B9-R4489, B9-R4514, B9-R4526, B9-R4540, B9-R4548
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.

CM Comments:	
VM Comments:	
IR Comments:	

Hamilton Avenue Bridge	**Total Optical Monitoring Points = 6**
OM Alerts >0.25":	BH-01, BH-02, BH-03, BH-04, BH-05, BH-06
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
CM Comments:	
VM Comments:	
IR Comments:	

160 3rd Street	**Total Optical Monitoring Points = 13**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

148 3rd Street	**Total Optical Monitoring Points = 4**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	Minimal vibration from canal activities.
IR Comments:	

413 Bond Street	**Total Optical Monitoring Points = 2**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	

VM Comments:	Minimal vibration from canal activities.
IR Comments:	

421 Bond Street	**Total Optical Monitoring Points = 2**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

Bond Street (End)	**Total Optical Monitoring Points = 1**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	Minimal vibration from canal activities.
IR Comments:	

98 4th Street	**Total Optical Monitoring Points = 3**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	Slight trend in crack gauge ECG-3, other gauges stable.
VM Comments:	
IR Comments:	
68 5th Street	**Total Optical Monitoring Points = 15**
OM Alerts >0.25":	BD-R3628, BD-3648
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
	2) Data consistent with historical data trends at these locations.
CM Comments:	
VM Comments:	
IR Comments:	
453 Smith Street	**Total Optical Monitoring Points = 19**

OM Alerts >0.25":	R4076, R4379
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
	2) Data consistent with historical data trends at these locations.
CM Comments:	
VM Comments:	
IR Comments:	
503 Smith Street (480 8)	**Total Optical Monitoring Points = 6**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	
427 Smith Street	**Total Optical Monitoring Points = 8**
OM Alerts >0.25":	R4739
OM Comments:	1) Prism bumped, reported to Tectonic for readjustment.
	2) Data consistent with historical data trends at these locations.
CM Comments:	
VM Comments:	
IR Comments:	
543 Smith Street	**Total Optical Monitoring Points = 5**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	
186 3rd Street	**Total Optical Monitoring Points = 12**
OM Alerts >0.25":	None
OM Comments:	N/A

CM Comments:	
VM Comments:	Minimal vibration from probing operation.
IR Comments:	
176 3rd Street	**Total Optical Monitoring Points = 6**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	Minimal vibration from probing operation.
IR Comments:	

190 3rd Street	**Total Optical Monitoring Points = 5**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

212 3rd Street	**Total Optical Monitoring Points = 10**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

220 3rd Street	**Total Optical Monitoring Points = 2**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	

IR Comments:	

386 3rd Street	**Total Optical Monitoring Points = 8**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

167 6th Street	**Total Optical Monitoring Points = 5**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

163 6th Street	**Total Optical Monitoring Points = 5**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

141 6th Street	**Total Optical Monitoring Points = 6**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

42 2nd Avenue	**Total Optical Monitoring Points = 8**

OM Alerts >0.25”:	None
OM Comments:	1) Trend 0.137 inch southwest with no loss in elevation at prism 7T-L325 with less movement as you move awat from the prism.
CM Comments:	
VM Comments:	
IR Comments:	

110 5th Street (977 1)	**Total Optical Monitoring Points = 3**
OM Alerts >0.25”:	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

110 5th Street (990 21)	**Total Optical Monitoring Points = 19**
OM Alerts >0.25”:	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

122 5th Street	**Total Optical Monitoring Points =**
OM Alerts >0.25”:	6T-L535
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
	2) Data consistent with historical data trends at these locations.
CM Comments:	
VM Comments:	
IR Comments:	

22 2nd Avenue	**Total Optical Monitoring Points =**
OM Alerts >0.25”:	None

OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

38 2nd Avenue	**Total Optical Monitoring Points =**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

107 6th Street	**Total Optical Monitoring Points =**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

65 6th Street	**Total Optical Monitoring Points = 20**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

76 6th Street	**Total Optical Monitoring Points = 15**
OM Alerts >0.25":	BD-L3762, BD-L3831
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.

	2) Trend at failed section continues to 0.6 inch southwest with a loss in elevation of 0.95 inches. Maximum movement at prism 7T-L203, displacement less as you move from this point.
CM Comments:	
VM Comments:	
IR Comments:	

48 2nd Avenue	**Total Optical Monitoring Points = 6**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

58 2nd Avenue	**Total Optical Monitoring Points = 4**
OM Alerts >0.25":	6T-L661, 6T-L784A, 6T-7848
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
	2) Movement not indicitive of true movement.
CM Comments:	
VM Comments:	
IR Comments:	

37 9th Street	**Total Optical Monitoring Points = 30**
OM Alerts >0.25":	7T-R316, 7T-RBD-L4065, BD-L4190, BD-L4372, BD-L4402
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
	2) Trend 0.35 inch northeast with a comparable loss in elevation at prism 7T-R165 with less movement as you move awat from the prism. A second trend 0.24 inches with a comparable loss in elevation at 7T-R340 with less movement as you move away from the prism.
CM Comments:	
VM Comments:	
IR Comments:	

RTA2 Weekly Instrument Monitoring Report

34 9th Street	Total Optical Monitoring Points = 2
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

1 11th Street	Total Optical Monitoring Points = 16
OM Alerts >0.25":	L4811, L4857
OM Comments:	1) Alerts result of momentary interference between AMTS and prisms.
	2) Movement not indicitive of true movement.
CM Comments:	
VM Comments:	
IR Comments:	

1 12th Street Extension	Total Optical Monitoring Points = 3
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

Block 1025 Lot 1	Total Optical Monitoring Points =
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

551 Smith Street	Total Optical Monitoring Points =
OM Alerts >0.25":	None

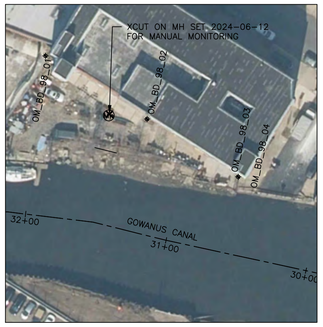
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	
381 Smith / 381 Hamilton Street	**Total Optical Monitoring Points = 10**
OM Alerts >0.25":	None
OM Comments:	N/A
CM Comments:	
VM Comments:	
IR Comments:	

Attachments

Instrument Locations
Prism Plots
Vibration Monitoring
Crack Monitoring

1 12TH ST/381 HAMILTON/551 SMITH

SCALE: 1" = 50

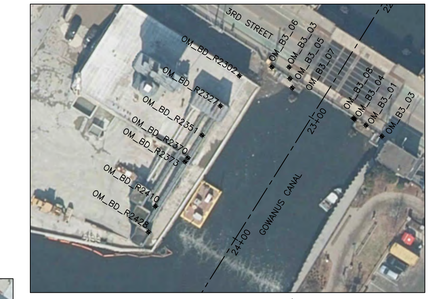


98 4TH STREET

SCALE: 1" = 50

LEGEND

AMTS	AUTOMATED MONITORING TOTAL STATION
OM_L/R2400	MONITORING PRISM
OM_4T/6T/T7/8T_01	MONITORING PRISM IN TURNING BASIN
OM_B3_01	MONITORING PRISM ATTACHED TO 3RD STREET BRIDGE
OM_B9_01	MONITORING PRISM ATTACHED TO 9TH STREET BRIDGE
OM_BH_01	MONITORING PRISM ATTACHED TO HAMILTON AVE BRIDGE
OM_BD_L/R2400	MONITORING PRISM ATTACHED TO BUILDING
OM_SW_L/R2400	MONITORING PRISM ATTACHED SIDEWALK



3RD ST BRIDGE / 160 3RD

SCALE: 1" = 50

58 2ND AVE

SCALE: 1" = 50

15 2ND AVE

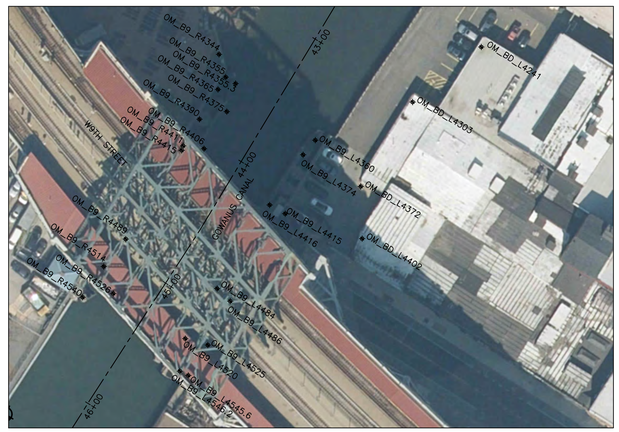
SCALE: 1" = 50

68 5TH STREET

SCALE: 1" = 50

HAMILTON AVENUE BRIDGE

SCALE: 1" = 50



9TH STREET BRIDGE / 37 9TH STREET

SCALE: 1" = 50

37 9TH ST / 42 2ND / 76 6TH ST

SCALE: 1" = 50

0 1 2 3

ORIGINAL SIZE IN INCHES

Rev	Date	Revision	Approved
4	06/14/24	UPDATED LOCATIONS	
5	06/18/24	UPDATED LOCATIONS	
6	06/19/24	ADDED PROPOSED LOCATIONS	
7	06/19/24	PER COMMENT	
8	06/21/24	ADDED LOCATIONS ON HAMILTON STREET BRIDGE	
9	06/24/24	UPDATED LOCATIONS	

DRAWING CONTROL

Designed by:	Drawn by:	Checked by:
N/A	JC	FW

Purpose	Released by	Date
○ For Comment		
○ For Approval		
○ For Bid		
○ For Construction		

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70 Pleasant Hill Road
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Mountainville, NY 10953

Phone: (845) 534-5959
(800) 829-6531

www.tectonicengineering.com

OPTICAL MONITORING INSTALLED EQUIPMENT SKETCH

REMEDIATION TARGET AREA (RTA) 2
GOWANUS CANAL SUPERFUND SITE
BOROUGH OF BROOKLYN
NEW YORK STATE

Date	Work Order	Drawing No.	Rev
05/13/24	12384.01	SU-108	9

Scale: 1" = 100'


SMITH ST.
4TH ST.
2ND ST.
5TH ST.
CARROLL ST.
GARNET ST.
3RD ST.
6TH ST.
7TH ST.
8TH ST.
RTA2 (STA. 31+00 TO 39+00)
28 DR-2
46 DR-10
47 DR-10
3RD ST. BRIDGE
RTA2 (STA. 21+00 TO 31+00)
26 DR-1
44 DR-9
45 DR-9
48 DR-11
49 DR-11
RTA2 (STA. 39+00 TO 48+00)
SM-1
SM-2
SM-5
RTA 2
4TH ST. TURNING BASIN
35 DR-5
52 DR-13
53 DR-13
9TH ST. BRIDGE
3RD AVE. BRIDGE
48+00 TO 55+00)
6TH ST. TURNING BASIN
37 DR-6
54 DR-14
55 DR-14
7TH ST. TURNING BASIN
39 DR-7
56 DR-15
57 DR-15
11TH ST. TURNING BASIN
41 DR-7
58 DR-15
59 DR-15

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-1 UM16154 15 2nd Ave Brooklyn Parking			SM-2 UM12053 186 3rd St Parking Lot			SM-3 UM12381 160 3rd St		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-	-	-	-
6/7/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	-	-	-	-	-	-
6/16/2024	-	-	-	-	-	-	-	-	-
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	-	-	-	-	-	-
6/23/2024	-	-	-	-	-	-	-	-	-
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/4/2024	-	-	-	-	-	-	-	-	-
7/5/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/6/2024	-	-	-	-	-	-	-	-	-
7/7/2024	-	-	-	-	-	-	-	-	-
7/8/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	-	-	-	-	-	-
7/14/2024	-	-	-	-	-	-	-	-	-
7/15/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-4 UM10926			SM-5 UM11567		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-
6/7/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/11/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/12/2024	<0.400	<0.400	<0.400	N/A	N/A	N/A
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	<0.400	<0.400	<0.400
6/16/2024	-	-	-	<0.400	<0.400	<0.400
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	<0.400	<0.400	<0.400
6/23/2024	-	-	-	<0.400	<0.400	<0.400
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	<0.400	<0.400	<0.400
6/30/2024	-	-	-	<0.400	<0.400	<0.400
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	-	-	-	<0.400	<0.400	<0.400
7/4/2024	-	-	-	<0.400	<0.400	<0.400
7/5/2024	-	-	-	<0.400	<0.400	<0.400
7/6/2024	-	-	-	<0.400	<0.400	<0.400
7/7/2024	-	-	-	<0.400	<0.400	<0.400
7/8/2024	-	-	-	<0.400	<0.400	<0.400
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	<0.400	<0.400	<0.400
7/14/2024	-	-	-	<0.400	<0.400	<0.400
7/15/2024	-	-	-	<0.400	<0.400	<0.400


SMITH ST.
4TH ST.
2ND ST.
5TH ST.
CARROLL ST.
GARNET ST.
3RD ST.
6TH ST.
7TH ST.
8TH ST.
RTA2 (STA. 31+00 TO 39+00)
28 DR-2
46 DR-10
47 DR-10
3RD ST. BRIDGE
RTA2 (STA. 21+00 TO 31+00)
26 DR-1
44 DR-9
45 DR-9
48 DR-11
49 DR-11
RTA2 (STA. 39+00 TO 48+00)
SM-1
SM-2
SM-5
RTA 2
4TH ST. TURNING BASIN
35 DR-5
52 DR-13
53 DR-13
9TH ST. BRIDGE
3RD AVE. BRIDGE
48+00 TO 55+00)
6TH ST. TURNING BASIN
37 DR-6
54 DR-14
55 DR-14
7TH ST. TURNING BASIN
39 DR-7
56 DR-15
57 DR-15
11TH ST. TURNING BASIN
41 DR-7
58 DR-15
59 DR-15

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-1 UM16154 15 2nd Ave Brooklyn Parking			SM-2 UM12053 186 3rd St Parking Lot			SM-3 UM12381 160 3rd St		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-	-	-	-
6/7/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	-	-	-	-	-	-
6/16/2024	-	-	-	-	-	-	-	-	-
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	-	-	-	-	-	-
6/23/2024	-	-	-	-	-	-	-	-	-
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/4/2024	-	-	-	-	-	-	-	-	-
7/5/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/6/2024	-	-	-	-	-	-	-	-	-
7/7/2024	-	-	-	-	-	-	-	-	-
7/8/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	-	-	-	-	-	-
7/14/2024	-	-	-	-	-	-	-	-	-
7/15/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/16/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-4 UM10926			SM-5 UM11567		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-
6/7/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/11/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/12/2024	<0.400	<0.400	<0.400	N/A	N/A	N/A
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	<0.400	<0.400	<0.400
6/16/2024	-	-	-	<0.400	<0.400	<0.400
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	<0.400	<0.400	<0.400
6/23/2024	-	-	-	<0.400	<0.400	<0.400
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	<0.400	<0.400	<0.400
6/30/2024	-	-	-	<0.400	<0.400	<0.400
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	-	-	-	<0.400	<0.400	<0.400
7/4/2024	-	-	-	<0.400	<0.400	<0.400
7/5/2024	-	-	-	<0.400	<0.400	<0.400
7/6/2024	-	-	-	<0.400	<0.400	<0.400
7/7/2024	-	-	-	<0.400	<0.400	<0.400
7/8/2024	-	-	-	<0.400	<0.400	<0.400
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	<0.400	<0.400	<0.400
7/14/2024	-	-	-	<0.400	<0.400	<0.400
7/15/2024	-	-	-	<0.400	<0.400	<0.400
7/16/2024	-	-	-	<0.400	<0.400	<0.400


SMITH ST.
4TH ST.
2ND ST.
5TH ST.
CARROLL ST.
GARNET ST.
3RD ST.
6TH ST.
7TH ST.
8TH ST.
RTA2 (STA. 31+00 TO 39+00)
28 DR-2
46 DR-10
47 DR-10
3RD ST. BRIDGE
SM-5
RTA2 (STA. 21+00 TO 31+00)
26 DR-1
44 DR-9
45 DR-9
48 DR-11
49 DR-11
RTA2 (STA. 39+00 TO 48+00)
RTA 2
9TH ST. BRIDGE
4TH ST. TURNING BASIN
35 DR-5
52 DR-13
53 DR-13
3RD AVE. BRIDGE
48+00 TO 55+00)
6TH ST. TURNING BASIN
37 DR-6
54 DR-14
55 DR-14
7TH ST. TURNING BASIN
39 DR-7
56 DR-15
57 DR-15
11TH ST. TURNING BASIN
41 DR-7
58 DR-15
59 DR-15

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-1 UM16154 15 2nd Ave Brooklyn Parking			SM-2 UM12053 186 3rd St Parking Lot			SM-3 UM12381 160 3rd St		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-	-	-	-
6/7/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	-	-	-	-	-	-
6/16/2024	-	-	-	-	-	-	-	-	-
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	-	-	-	-	-	-
6/23/2024	-	-	-	-	-	-	-	-	-
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/4/2024	-	-	-	-	-	-	-	-	-
7/5/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/6/2024	-	-	-	-	-	-	-	-	-
7/7/2024	-	-	-	-	-	-	-	-	-
7/8/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	-	-	-	-	-	-
7/14/2024	-	-	-	-	-	-	-	-	-
7/15/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/16/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/17/2024	-	-	-	-	-	-	-	-	-

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-4 UM10926			SM-5 UM11567		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-
6/7/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/11/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/12/2024	<0.400	<0.400	<0.400	N/A	N/A	N/A
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	<0.400	<0.400	<0.400
6/16/2024	-	-	-	<0.400	<0.400	<0.400
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	<0.400	<0.400	<0.400
6/23/2024	-	-	-	<0.400	<0.400	<0.400
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	<0.400	<0.400	<0.400
6/30/2024	-	-	-	<0.400	<0.400	<0.400
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	-	-	-	<0.400	<0.400	<0.400
7/4/2024	-	-	-	<0.400	<0.400	<0.400
7/5/2024	-	-	-	<0.400	<0.400	<0.400
7/6/2024	-	-	-	<0.400	<0.400	<0.400
7/7/2024	-	-	-	<0.400	<0.400	<0.400
7/8/2024	-	-	-	<0.400	<0.400	<0.400
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	<0.400	<0.400	<0.400
7/14/2024	-	-	-	<0.400	<0.400	<0.400
7/15/2024	-	-	-	<0.400	<0.400	<0.400
7/16/2024	-	-	-	<0.400	<0.400	<0.400
7/17/2024	-	-	-	<0.400	<0.400	<0.400


SMITH ST.
4TH ST.
2ND ST.
5TH ST.
CARROLL ST.
GARNET ST.
3RD ST.
6TH ST.
7TH ST.
8TH ST.
RTA2 (STA. 31+00 TO 39+00)
28 DR-2
46 DR-10
47 DR-10
3RD ST. BRIDGE
SM-5
RTA2 (STA. 21+00 TO 31+00)
26 DR-1
44 DR-9
45 DR-9
48 DR-11
49 DR-11
RTA2 (STA. 39+00 TO 48+00)
RTA 2
9TH ST. BRIDGE
4TH ST. TURNING BASIN
35 DR-5
52 DR-13
53 DR-13
3RD AVE. BRIDGE
48+00 TO 55+00)
6TH ST. TURNING BASIN
37 DR-6
54 DR-14
55 DR-14
7TH ST. TURNING BASIN
39 DR-7
56 DR-15
57 DR-15
11TH ST. TURNING BASIN
41 DR-7
58 DR-15
59 DR-15

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-1 UM16154			SM-2 UM12053			SM-3 UM12381		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-	-	-	-
6/7/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	-	-	-	-	-	-
6/16/2024	-	-	-	-	-	-	-	-	-
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	-	-	-	-	-	-
6/23/2024	-	-	-	-	-	-	-	-	-
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/4/2024	-	-	-	-	-	-	-	-	-
7/5/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/6/2024	-	-	-	-	-	-	-	-	-
7/7/2024	-	-	-	-	-	-	-	-	-
7/8/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	-	-	-	-	-	-
7/14/2024	-	-	-	-	-	-	-	-	-
7/15/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/16/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/17/2024	-	-	-	-	-	-	-	-	-
7/18/2024	-	-	-	-	-	-	-	-	-

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-4 UM10926			SM-5 UM11567		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-
6/7/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/11/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/12/2024	<0.400	<0.400	<0.400	N/A	N/A	N/A
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	<0.400	<0.400	<0.400
6/16/2024	-	-	-	<0.400	<0.400	<0.400
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	<0.400	<0.400	<0.400
6/23/2024	-	-	-	<0.400	<0.400	<0.400
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	<0.400	<0.400	<0.400
6/30/2024	-	-	-	<0.400	<0.400	<0.400
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	-	-	-	<0.400	<0.400	<0.400
7/4/2024	-	-	-	<0.400	<0.400	<0.400
7/5/2024	-	-	-	<0.400	<0.400	<0.400
7/6/2024	-	-	-	<0.400	<0.400	<0.400
7/7/2024	-	-	-	<0.400	<0.400	<0.400
7/8/2024	-	-	-	<0.400	<0.400	<0.400
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	<0.400	<0.400	<0.400
7/14/2024	-	-	-	<0.400	<0.400	<0.400
7/15/2024	-	-	-	<0.400	<0.400	<0.400
7/16/2024	-	-	-	<0.400	<0.400	<0.400
7/17/2024	-	-	-	<0.400	<0.400	<0.400
7/18/2024	-	-	-	<0.400	<0.400	<0.400


SMITH ST.
4TH ST.
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RTA2 (STA. 31+00 TO 39+00)
28 DR-2
46 DR-10
47 DR-10
3RD ST. BRIDGE
SM-5
RTA2 (STA. 21+00 TO 31+00)
26 DR-1
44 DR-9
45 DR-9
48 DR-11
49 DR-11
RTA2 (STA. 39+00 TO 48+00)
RTA 2
9TH ST. BRIDGE
4TH ST. TURNING BASIN
35 DR-5
52 DR-13
53 DR-13
3RD AVE. BRIDGE
48+00 TO 55+00)
6TH ST. TURNING BASIN
37 DR-6
54 DR-14
55 DR-14
7TH ST. TURNING BASIN
39 DR-7
56 DR-15
57 DR-15
11TH ST. TURNING BASIN
41 DR-7
58 DR-15
59 DR-15

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-1 UM16154			SM-2 UM12053			SM-3 UM12381		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-	-	-	-
6/7/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	-	-	-	-	-	-
6/16/2024	-	-	-	-	-	-	-	-	-
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	-	-	-	-	-	-
6/23/2024	-	-	-	-	-	-	-	-	-
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	-	-	-	-	-	-
6/30/2024	-	-	-	-	-	-	-	-	-
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/4/2024	-	-	-	-	-	-	-	-	-
7/5/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/6/2024	-	-	-	-	-	-	-	-	-
7/7/2024	-	-	-	-	-	-	-	-	-
7/8/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	-	-	-	-	-	-
7/14/2024	-	-	-	-	-	-	-	-	-
7/15/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/16/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400	-	-	-
7/17/2024	-	-	-	-	-	-	-	-	-
7/18/2024	-	-	-	-	-	-	-	-	-
7/19/2024	-	-	-	-	-	-	-	-	-
7/20/2024	-	-	-	-	-	-	-	-	-
7/21/2024	-	-	-	-	-	-	-	-	-

Summary of Vibration Level Monitoring
Daily Maximum Readings

SEISMOGRAPH S/N	SM-4 UM10926			SM-5 UM11567		
PEAK DIRECTION	TRAN (in/s)	VERT (in/s)	LONG (in/s)	TRAN (in/s)	VERT (in/s)	LONG (in/s)
Date	-	-	-	-	-	-
6/7/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/8/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/9/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/10/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/11/2024	N/A	N/A	N/A	N/A	N/A	N/A
6/12/2024	<0.400	<0.400	<0.400	N/A	N/A	N/A
6/13/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/14/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/15/2024	-	-	-	<0.400	<0.400	<0.400
6/16/2024	-	-	-	<0.400	<0.400	<0.400
6/17/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/18/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/19/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/20/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/21/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/22/2024	-	-	-	<0.400	<0.400	<0.400
6/23/2024	-	-	-	<0.400	<0.400	<0.400
6/24/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/25/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/26/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/27/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/28/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
6/29/2024	-	-	-	<0.400	<0.400	<0.400
6/30/2024	-	-	-	<0.400	<0.400	<0.400
7/1/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/2/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/3/2024	-	-	-	<0.400	<0.400	<0.400
7/4/2024	-	-	-	<0.400	<0.400	<0.400
7/5/2024	-	-	-	<0.400	<0.400	<0.400
7/6/2024	-	-	-	<0.400	<0.400	<0.400
7/7/2024	-	-	-	<0.400	<0.400	<0.400
7/8/2024	-	-	-	<0.400	<0.400	<0.400
7/9/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/10/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/11/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/12/2024	<0.400	<0.400	<0.400	<0.400	<0.400	<0.400
7/13/2024	-	-	-	<0.400	<0.400	<0.400
7/14/2024	-	-	-	<0.400	<0.400	<0.400
7/15/2024	-	-	-	<0.400	<0.400	<0.400
7/16/2024	-	-	-	<0.400	<0.400	<0.400
7/17/2024	-	-	-	<0.400	<0.400	<0.400
7/18/2024	-	-	-	<0.400	<0.400	<0.400
7/19/2024	-	-	-	<0.400	<0.400	<0.400
7/20/2024	-	-	-	<0.400	<0.400	<0.400
7/21/2024	-	-	-	<0.400	<0.400	<0.400

Appendix E

Weekly Water Quality Monitoring Report

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

PERIOD: July 15, 2024 – July 19, 2024

Date of Report: July 22, 2024

Report Contents

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

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Project Number JR0289B

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 9th 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.

Legend

- Ambient Buoy
- Sentinel Buoy
- RTA Boundary

300 150 0 300 Feet

RTA2 Buoy Locations

Gowanus Canal, Brooklyn, NY

B&B Engineers & Geologists of new york, p.c.

an affiliate of Geosyntec Consultants

Figure 1

Brooklyn, NY | June 2024

1.2 Current Reporting Period Scope of Monitoring

During the week of July 15, 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.

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 ambient buoy, turbidity and sheen are summarized in Section 5. 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 Wednesday, July 17 from 21:30PM to Thursday, July 18 at 01:30AM. The weather conditions onsite were as follows:

Table 1- Summary of Weather Conditions for reporting period.

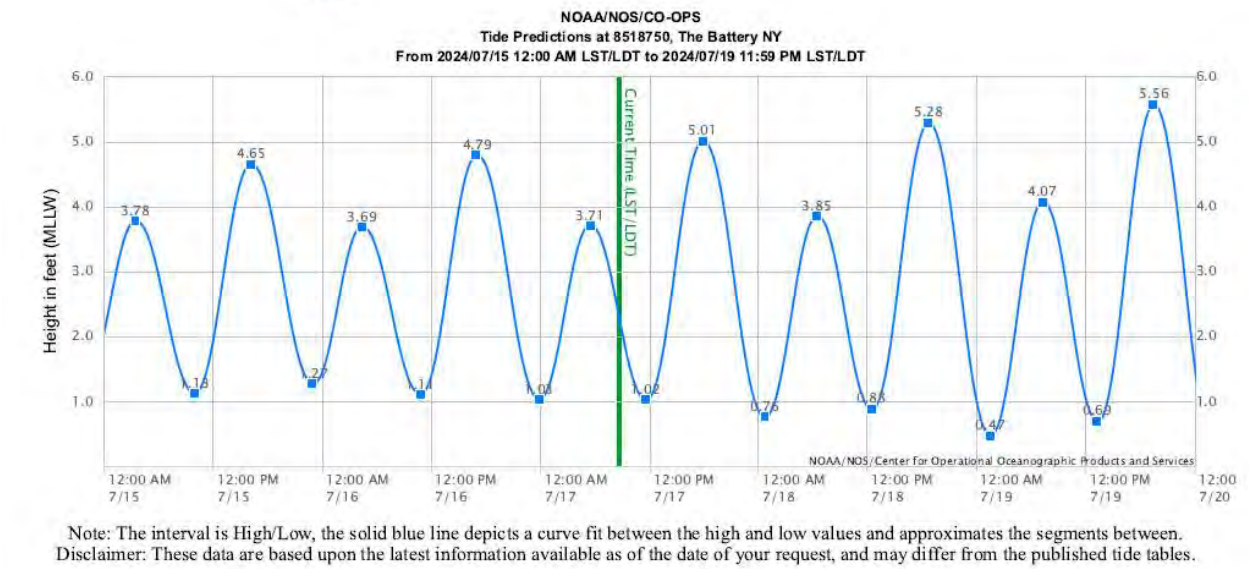
Meteorological Parameters	07/15/24	07/16/24	07/17/24	07/18/24	07/19/24
Wind Direction (from)	SSW	SW	SW	NW	W
Wind Speed (mph)	6.5	7.6	5.4	5.1	5.7
Temperature (°F)	82.7	85.3	80.0	78.3	75.5
Humidity (%)	73.5	64.8	77.6	68.2	54.5
Barometric Pressure (inHg)	29.76	29.70	29.73	29.80	29.99
Precipitation (Inch)	0.213	0.154	0.851	0	0

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
2024/07/15	Mon	03:24 AM	3.78 H	09:53 AM	1.13 L	4:07 PM	4.65 H	10:56 PM	1.27 L
2024/07/16	Tue	04:19 AM	3.69 H	10:45 AM	1.11 L	4:58 PM	4.79 H	11:48 PM	1.03 L
2024/07/17	Wed	05:25 AM	3.71 H	11:35 AM	1.02 L	5:51 PM	5.01 H		
2024/07/18	Thu	12:38 AM	0.76 L	06:25 AM	3.85 H	12:26 PM	0.88 L	6:41 PM	5.28 H
2024/07/19	Fri	01:28 AM	0.47 L	07:15 AM	4.07 H	1:16 PM	0.69 L	7:27 PM	5.56 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

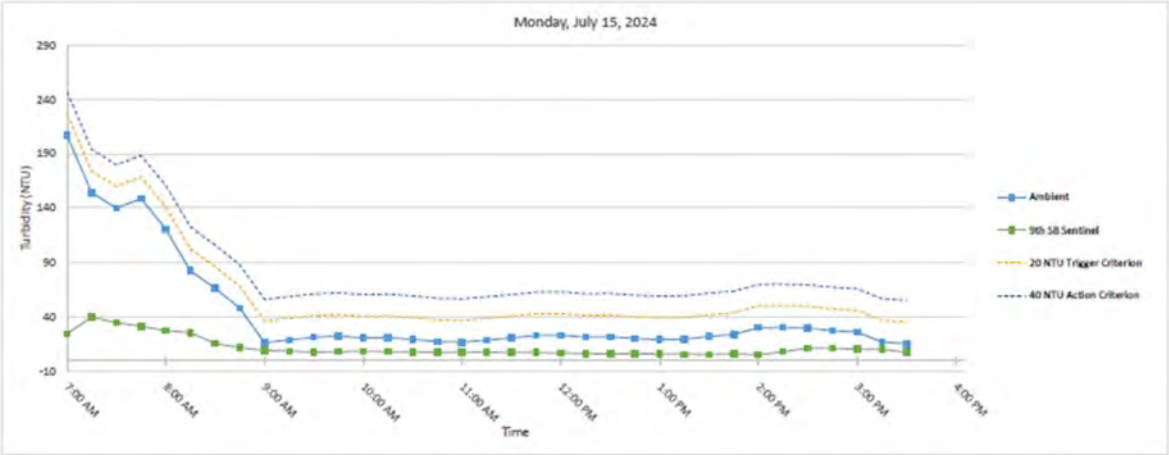
The trigger level criterion serves to provide early notification to the contractor of construction activities that may lead to an exceedance of the action level criterion. In the event of an exceedance to the trigger criterion, the contractor will not be stopped, and the contractor will be directed to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

Elevated turbidity was measured throughout RTA2 during the reporting period unrelated to construction activities and was detected both before and after active construction. During maintenance activities on Monday July 15, heavy biofilm was noted on both buoys.

3.1 Monday, July 15, 2024

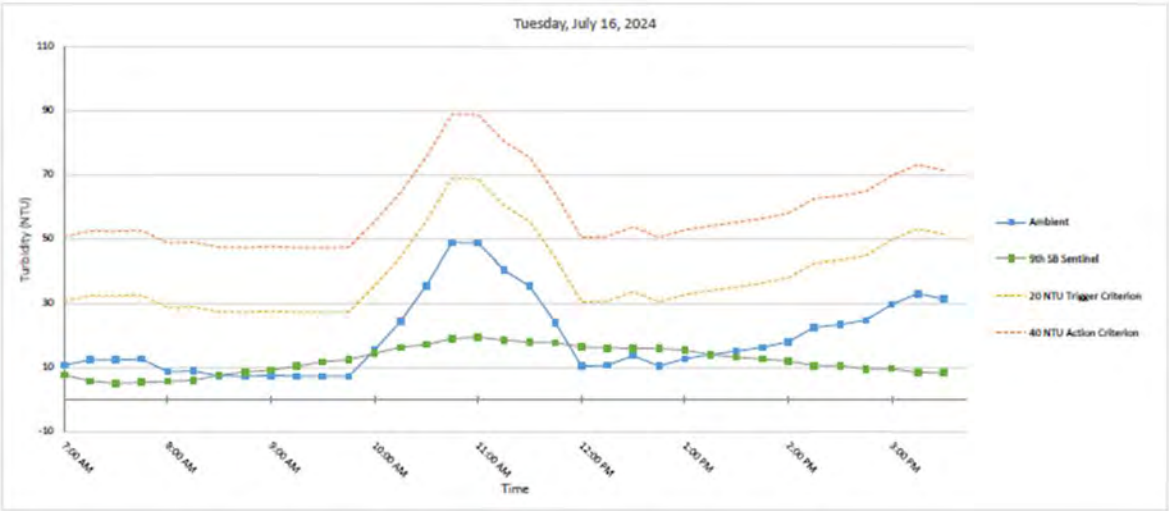
Figure 3. Hourly rolling average turbidity readings on Monday, July 15, 2024, from 7 AM to 3:30 PM.



Note: Elevated turbidity was measured throughout RTA2 unrelated to construction activities and was detected both before and after active construction.

3.1 Tuesday, July 16, 2024

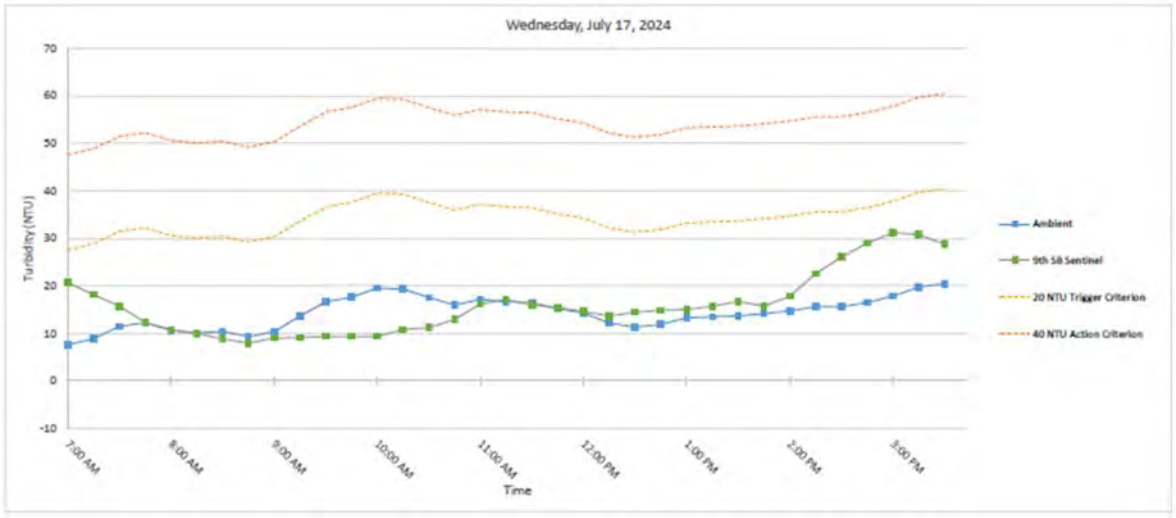
Figure 4. Hourly rolling average turbidity readings on Tuesday, July 16, 2024, from 7 AM to 3:30 PM.



Note: Elevated turbidity was measured throughout RTA2 unrelated to construction activities and was detected both before and after active construction.

3.1 Wednesday July 17, 2024

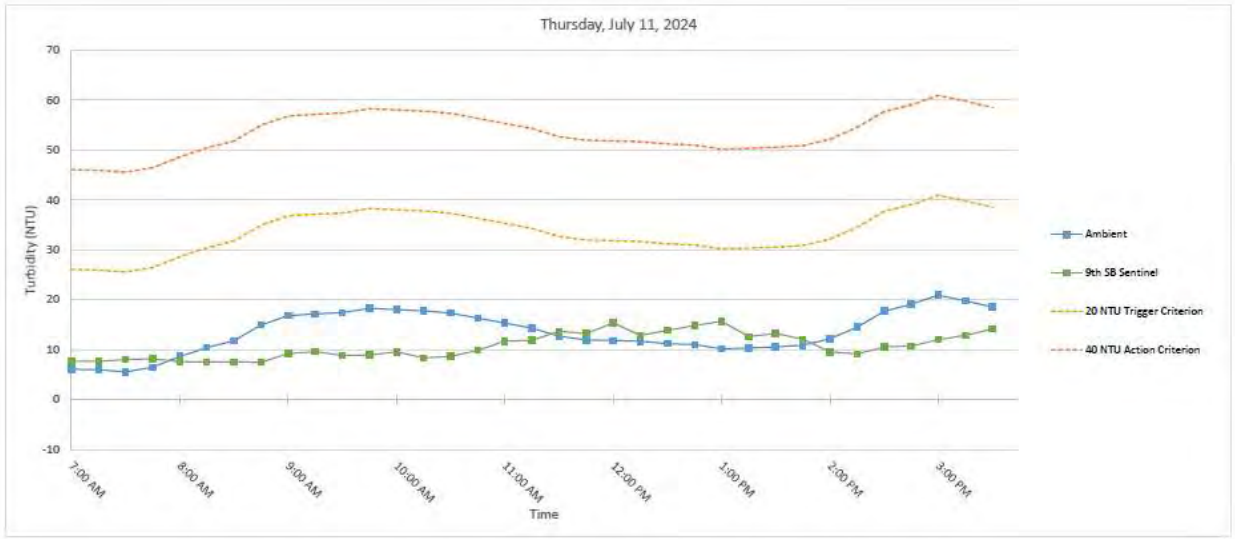
Figure 5. Hourly rolling average turbidity readings on Wednesday, July 17, 2024, from 7 AM to 3:30 PM.



Note: Elevated turbidity was measured throughout RTA2 unrelated to construction activities and was detected both before and after active construction.

3.1 Thursday, July 18, 2024

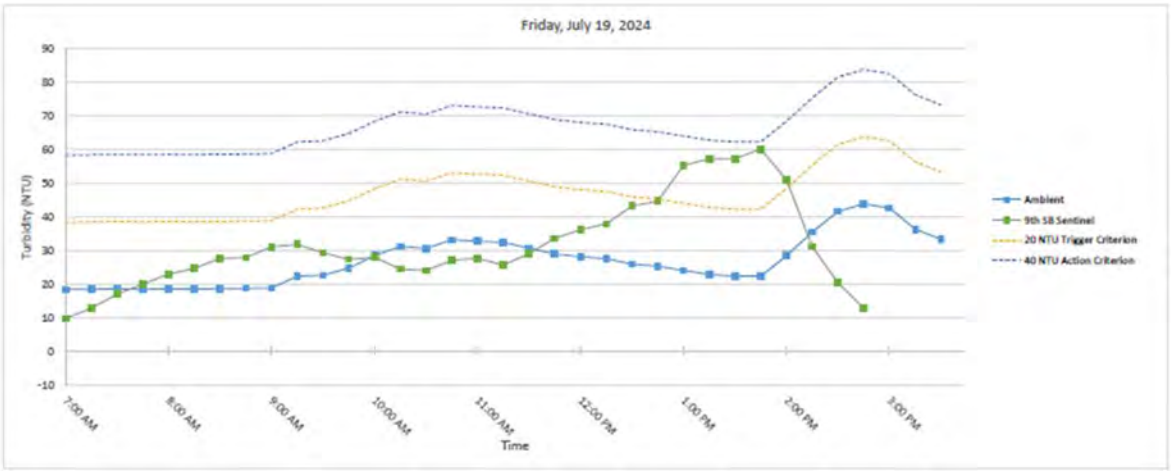
Figure 6. Hourly rolling average turbidity readings on Thursday July 18, 2024, from 7 AM to 3:30 PM.



Note: Elevated turbidity was measured throughout RTA2 unrelated to construction activities and was detected both before and after active construction.

3.1 Friday, July 19, 2024

Figure 7. Hourly rolling average turbidity readings on Friday July 19, 2024, from 7 AM to 3:30 PM.



Note: Elevated turbidity was measured throughout RTA2 unrelated to construction activities and was detected both before and after active construction.

4. DISSOLVED OXYGEN MONITORING DATA

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

- Ambient
  - Average = 3.83 (+/-0.1) mg/L
  - Min = 0.0 (+/-0.1) mg/L on multiple days
  - Max = 17.47(+/-0.1) mg/L on Tuesday, July 16, 2024

- 9th Street Bridge (N 9SB)
  - Average = 2.94 (+/-0.1) mg/L
  - Min = 0.0 (+/-0.1) mg/L on multiple days
  - Max = 10.7 (+/-0.1) mg/L on Wednesday, July 17, 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 3rd Street Bridge during and after work activities throughout the week. A rainfall event which triggered a CSO discharge occurred Wednesday, July 17 to Thursday, July 18 between 21:30 and 01:30AM.

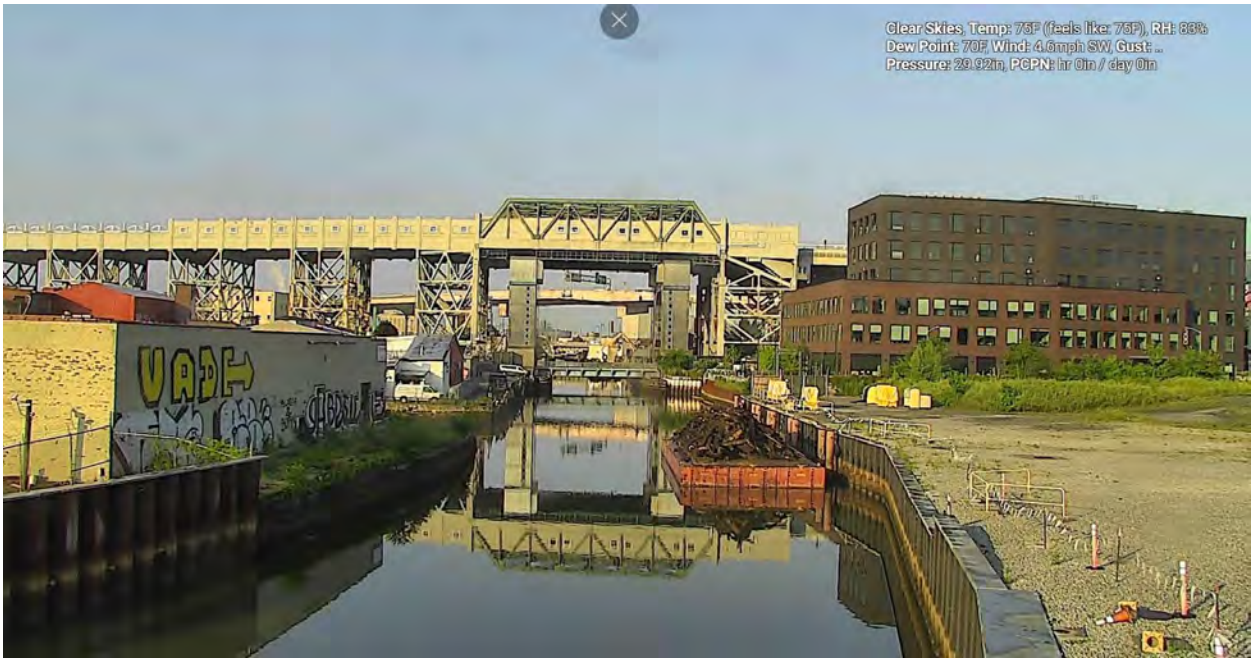


Figure 8 – July 15, 2024. General Conditions in Canal north of 9th Street Bridge prior to work activities at 7:07AM.

Appendix F

Weekly Noise Monitoring Report

CASHMAN DREDGING

NOISE MONITORING FORM
Gowanus Canal Superfund Site - RTA2
Brooklyn, New York

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
15-Jul-24	Smith St Site	7:30 AM	8:07:00	PCE-322A	91 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		3:37 PM	60.6	64.7 dBA / 09:00 - 10:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
15-Jul-24	431 Hoyt St (Citizens)	10:41 AM	6:37:00	PCE-322A	91 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		5:18 PM	62.6	68.3 dBA / 10:00 - 11:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
16-Jul-24	Smith St Site	6:57 AM	8:31:00	PCE-322A	94 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		3:28 PM	62.7	66.8 dBA / 10:00 - 11:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
16-Jul-24	Lowes	9:49 AM	5:10:00	PCE-322A	94 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		2:59 PM	63.9	68.9 dBA / 09:00 - 10:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
17-Jul-24	Smith St Site	7:19 AM	7:00:00	PCE-322A	90 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		2:19 PM	55.6	56.9 dBA / 07:00 - 08:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
17-Jul-24	431 Hoyt St (Citizens)	7:14 AM	9:06:00	PCE-323	90 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		4:20 PM	64.8	67.8 dBA / 08:00 - 09:00	Ben Davis
Exceedance	None				
Action	N/A				

CASHMAN DREDGING

NOISE MONITORING FORM
Gowanus Canal Superfund Site - RTA2
Brooklyn, New York

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
18-Jul-24	Smith St Site	7:29 AM	9:05:00	PCE-322A	86 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		4:34 PM	58.3	62.8 dBA / 10:00 - 11:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
18-Jul-24	431 Hoyt St (Citizens)	8:02 AM	8:04:00	PCE-323	86 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		4:06 PM	64.4	66.6 dBA / 08:00 - 09:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
19-Jul-24	Smith St Site	7:35 AM	6:16:00	PCE-322A	83 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		1:51 PM	56.6	60.2 dBA / 07:00 - 08:00	Ben Davis
Exceedance	None				
Action	N/A				

Date	Monitoring Location	Start Time	Sample Duration	Calibration Data	Weather
19-Jul-24	431 Hoyt St (Citizens)	7:30 AM	6:46:00	PCE-323	83 deg F
		End Time	**Leq**	**Lmax / Time Period**	**Observer**
		2:16 PM	61.3	67.2 dBA / 08:00 - 09:00	Ben Davis
Exceedance	None				
Action	N/A				