



Proactive by Design

GEOTECHNICAL  
ENVIRONMENTAL  
ECOLOGICAL  
WATER  
CONSTRUCTION  
MANAGEMENT



## MEMORANDUM

To: Joseph Martella, RIDEM

From: Dave Rusczyk, GZA

Cc: Kenneth Lento, National Grid

Date: September 21, 2021

Re: Site Response Action Report  
Period August 22, 2021 through September 4, 2021  
Former Tidewater Facility  
Pawtucket, Rhode Island  
RIDEM Case No. 95-022 / Site Remediation File No. SR-26-0934

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### SITE ACTIVITIES PERFORMED

- Charter Contracting Company, LLC (Charter) continued activities related to implementation of the remedial construction work. These activities included:
  - Completion of the sealing of the combined sewer outfall penetration through the containment wall.
  - Continued placement of the clean imported engineered cap materials in the southern portion of the Site.
  - Continued deployment of the geomembrane liner system east of the substation building.
  - Continued installation of the underdrain system and construction of the engineered cap east of the substation building.
  - Continued construction of the revetment system in the southern portion of the Site.
- Perimeter air monitoring was performed during the period covered by this report with 11 air monitoring stations (4 solar powered units located proximate to the river and 7 electrically powered units). With the exception of the period between August 30, 2021 and September 4, 2021, these stations measured and recorded respirable dust and total volatile organic compounds (TVOC) concentrations continuously 24 hours per day/7 days per week. The electrical power to Stations 5 through 8 was temporarily deenergized during the period between August 30, 2021 and September 4, 2021 due to the performance of certain maintenance activities associated with the electrical substation. As indicated in the attached weekly perimeter air monitoring graphs, isolated exceedances of the TVOC (0.5 parts per million) perimeter threshold levels were noted during the period covered by this report at solar powered Station 4 proximate to the river. The air samples screened by the solar powered stations are not preheated within the unit prior to measuring the TVOC concentrations. As a result, the TVOC concentrations measured by the solar powered stations are affected and biased high during conditions with elevated humidity/dewpoint levels or during rapid changes in humidity levels. As shown on the TVOC plots for the solar power air monitoring stations, the humidity levels as measured by the on-Site weather station over the past 2-weeks ranged from approximately 40% to 95% and the elevated TVOC levels observed at solar powered Station 4 during this period were attributed to these elevated humidity levels and rapid changes in humidity levels rather than Site work activities.



- GZA collected ambient air samples from upwind and downwind locations on August 26, 2021 and September 1, 2021 for laboratory analysis for benzene, toluene, ethylbenzene, xylenes, and naphthalene. The analytical results from these samples indicated there were no exceedances of the project action levels. The analytical results were posted to the project website and the bulletin boards at the ends of Tidewater Street and Bowles Court and are also attached to this report.

ANTICIPATED SITE ACTIVITIES TO BE PERFORMED WITHIN NEXT 2 WEEKS

- Completion of the installation of the geomembrane liner and underdrain system east of the substation.
- Initial installation of the cap on the containment wall.
- Initial installation of the perimeter chain link fencing.
- Continued import of clean fill to construct the engineered caps in the eastern and southern portions of the Site.

Please contact Kenneth Lento at 781-907-3655 if you have any questions or comments.

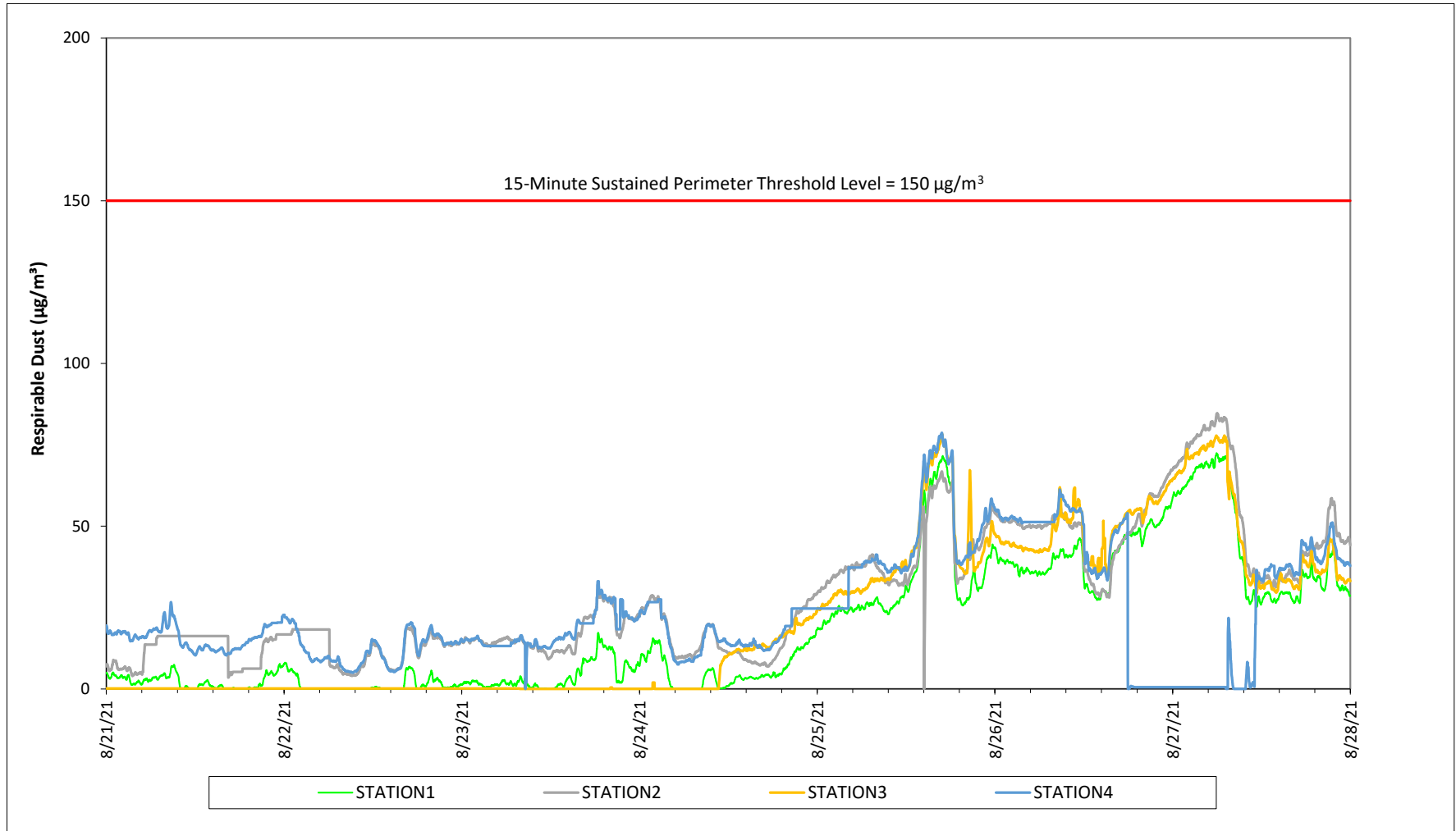
**Attachments:**

Weekly Perimeter Air Monitoring Results

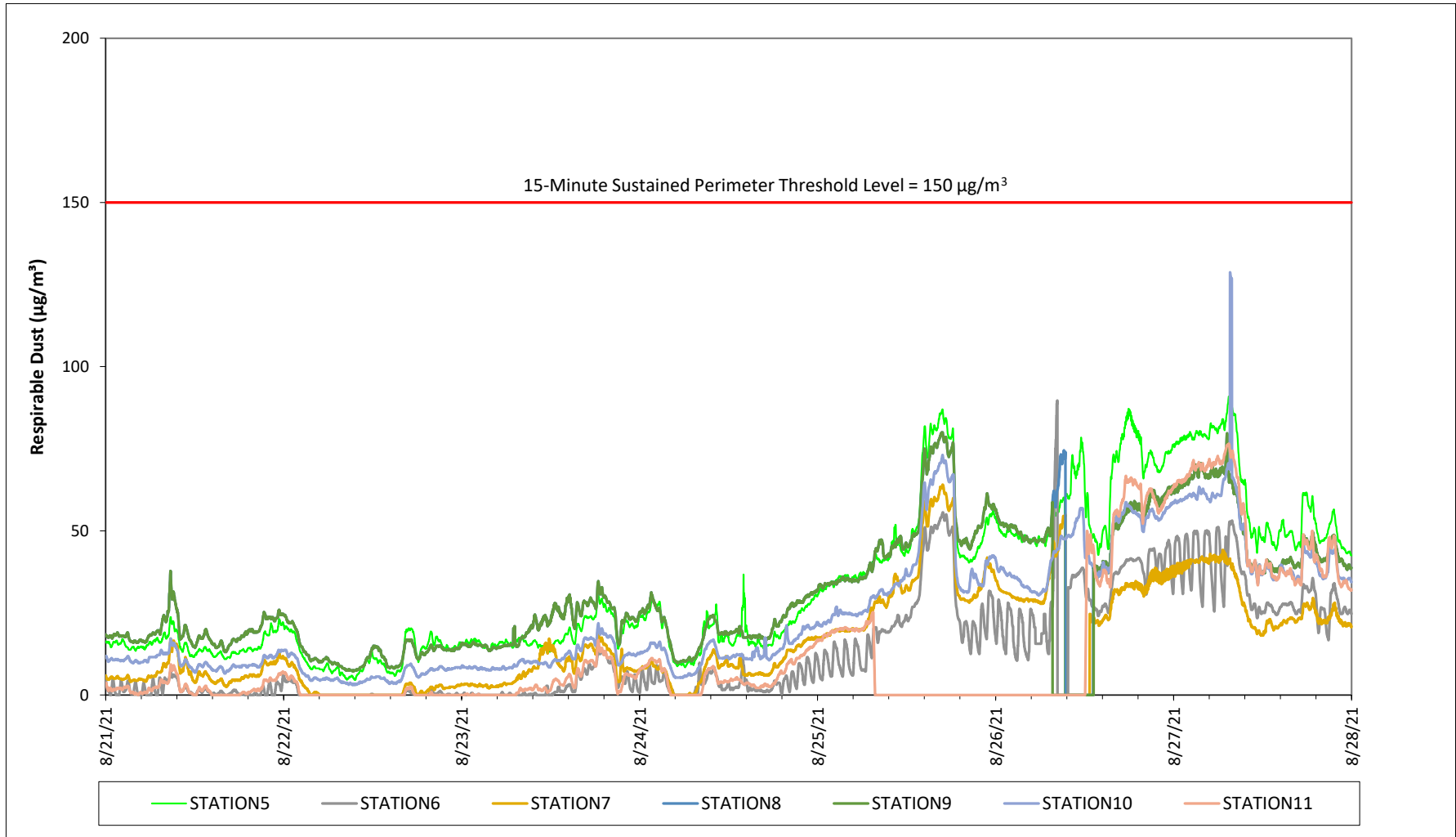
Air Monitoring Station Locations

Weekly Ambient Air Sampling Results

Prepared by National Grid for the Businesses and Residents Located Near the Former  
Tidewater Facility  
Air Quality Monitoring - Respirable Dust

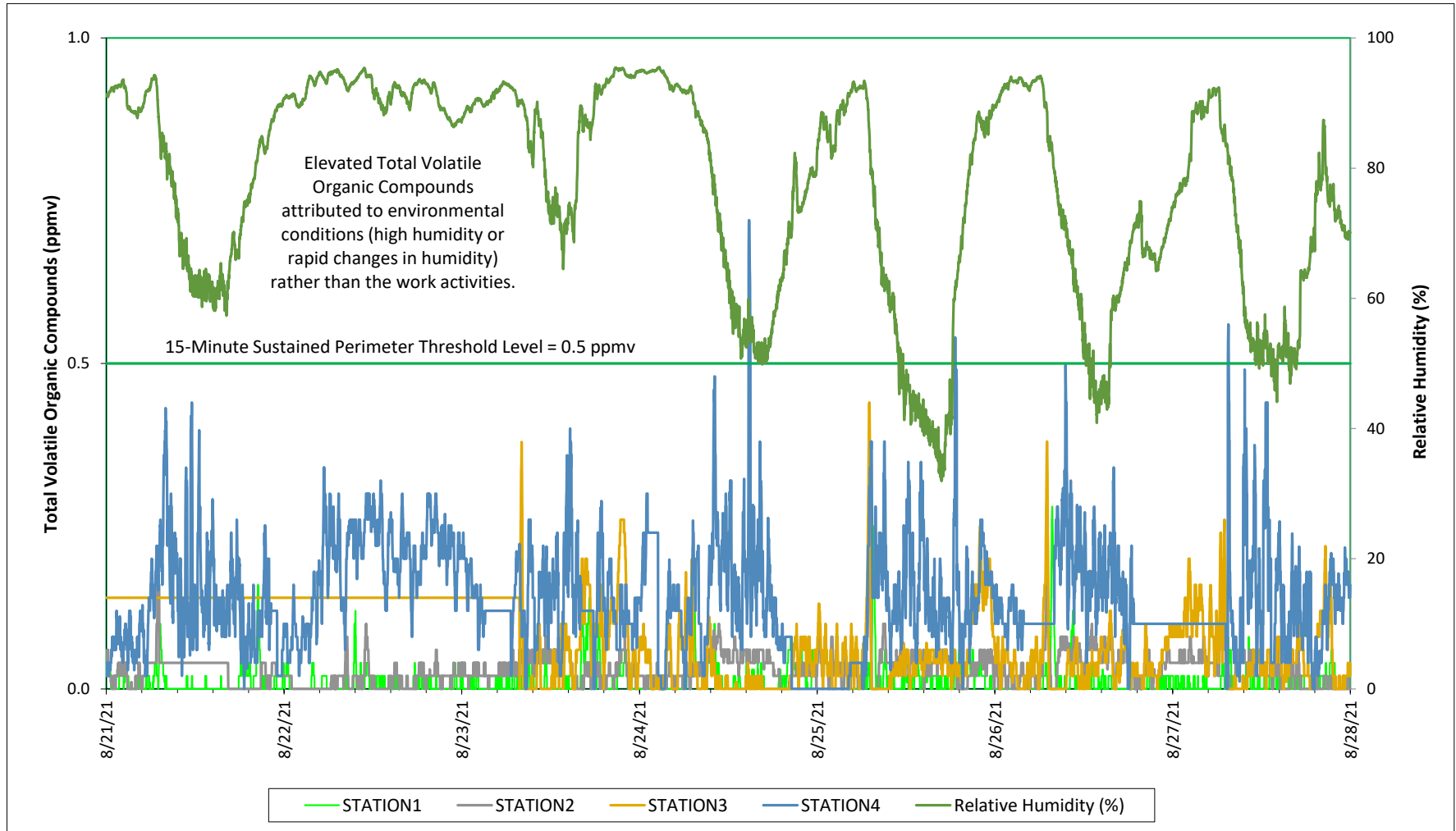


Prepared by National Grid for the Businesses and Residents Located Near the Former  
Tidewater Facility  
Air Quality Monitoring - Respirable Dust



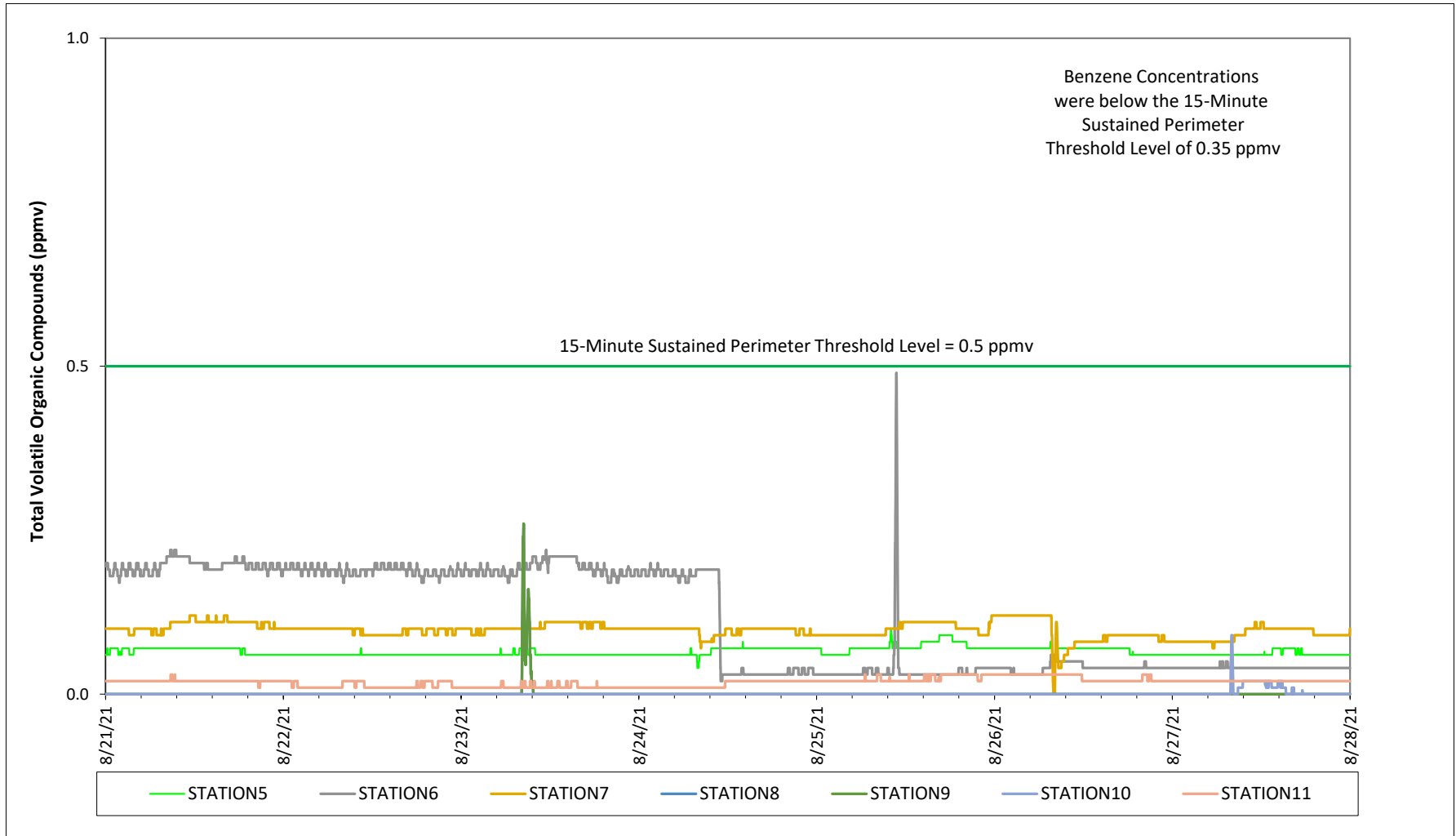
Prepared by National Grid for the Businesses and Residents Located Near the Former  
Tidewater Facility

Air Quality Monitoring - Total Volatile Organic Compounds

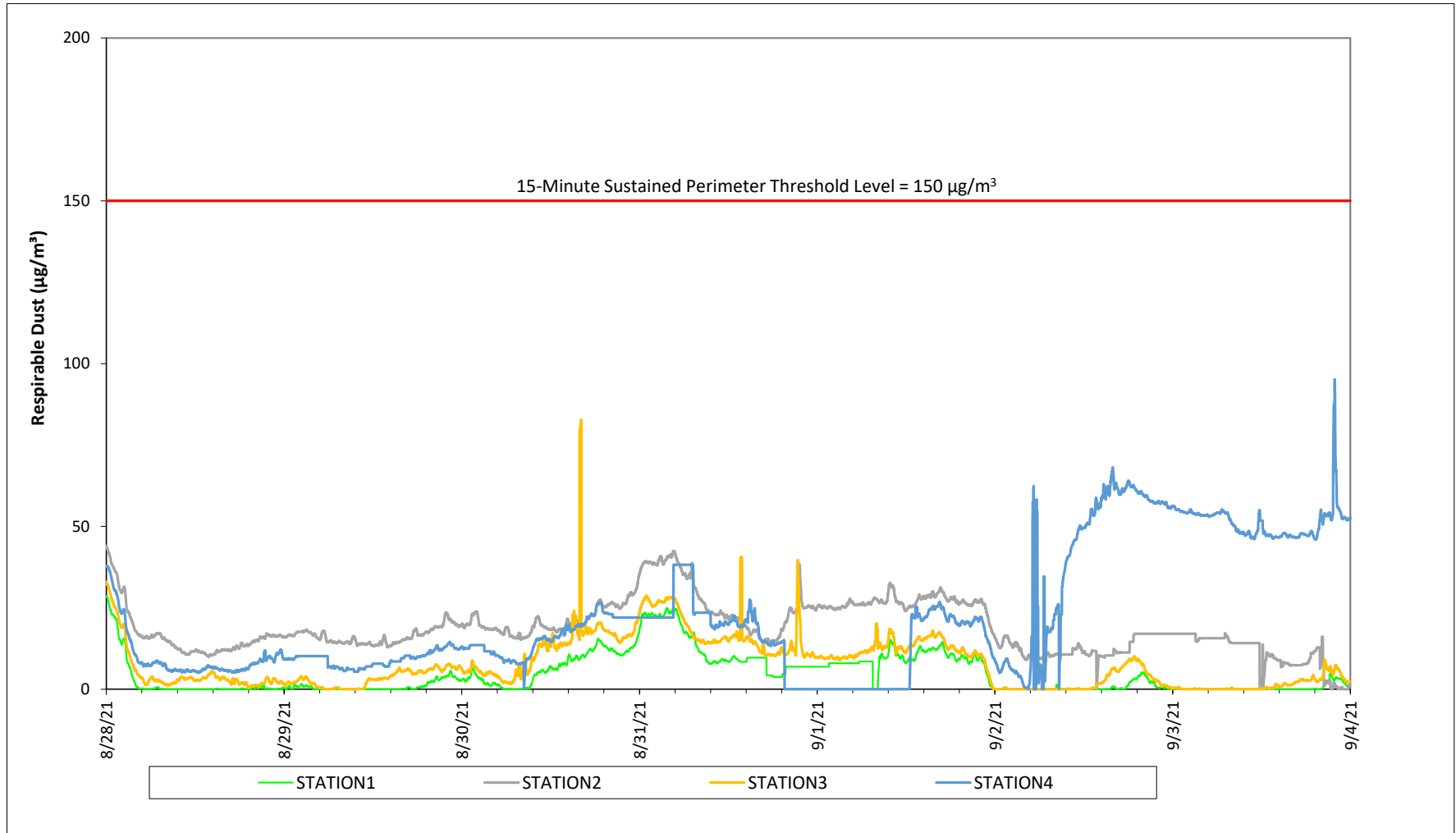


Prepared by National Grid for the Businesses and Residents Located Near the Former  
Tidewater Facility

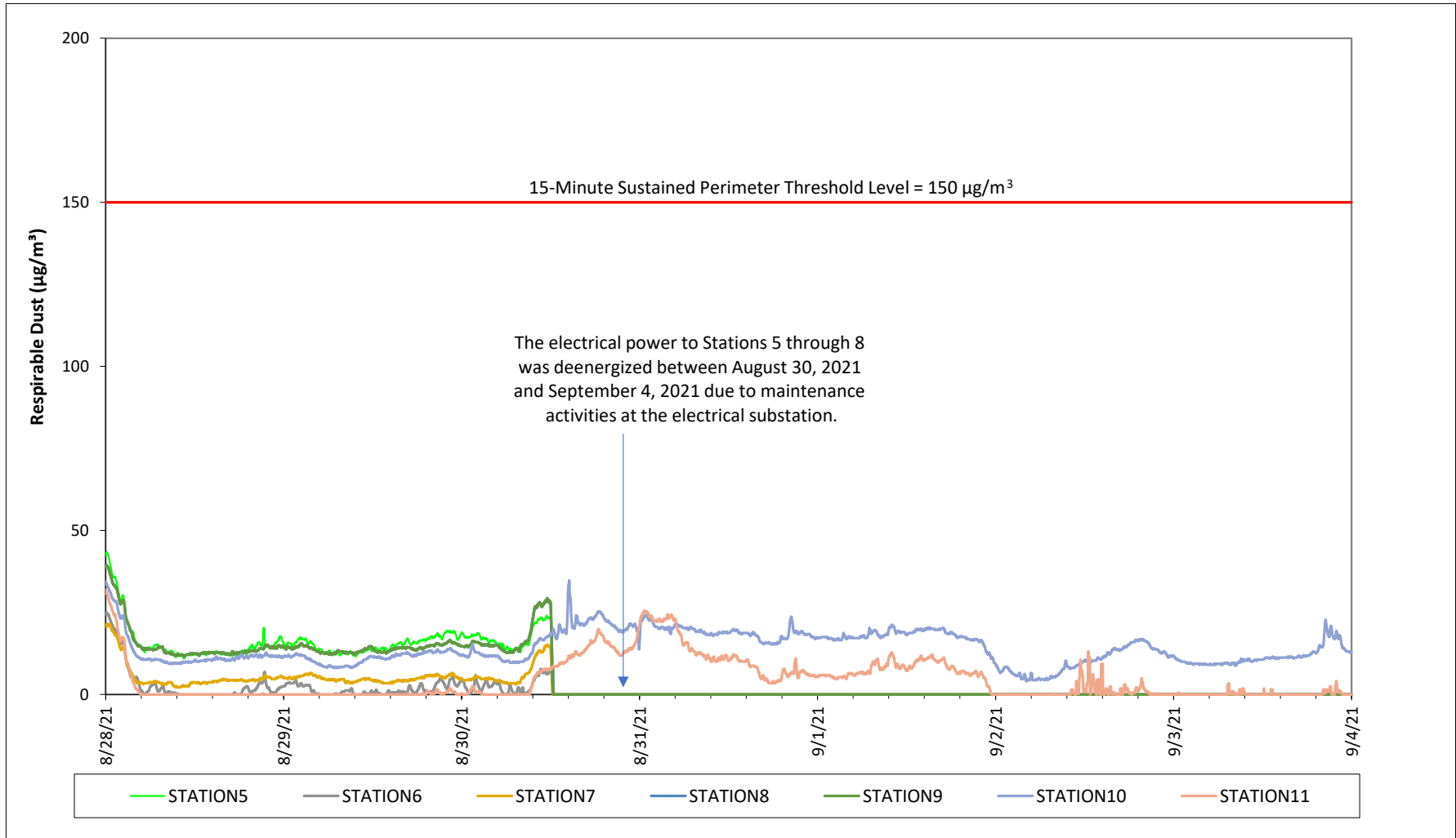
Air Quality Monitoring - Total Volatile Organic Compounds



Prepared by National Grid for the Businesses and Residents Located Near the Former  
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Air Quality Monitoring - Respirable Dust



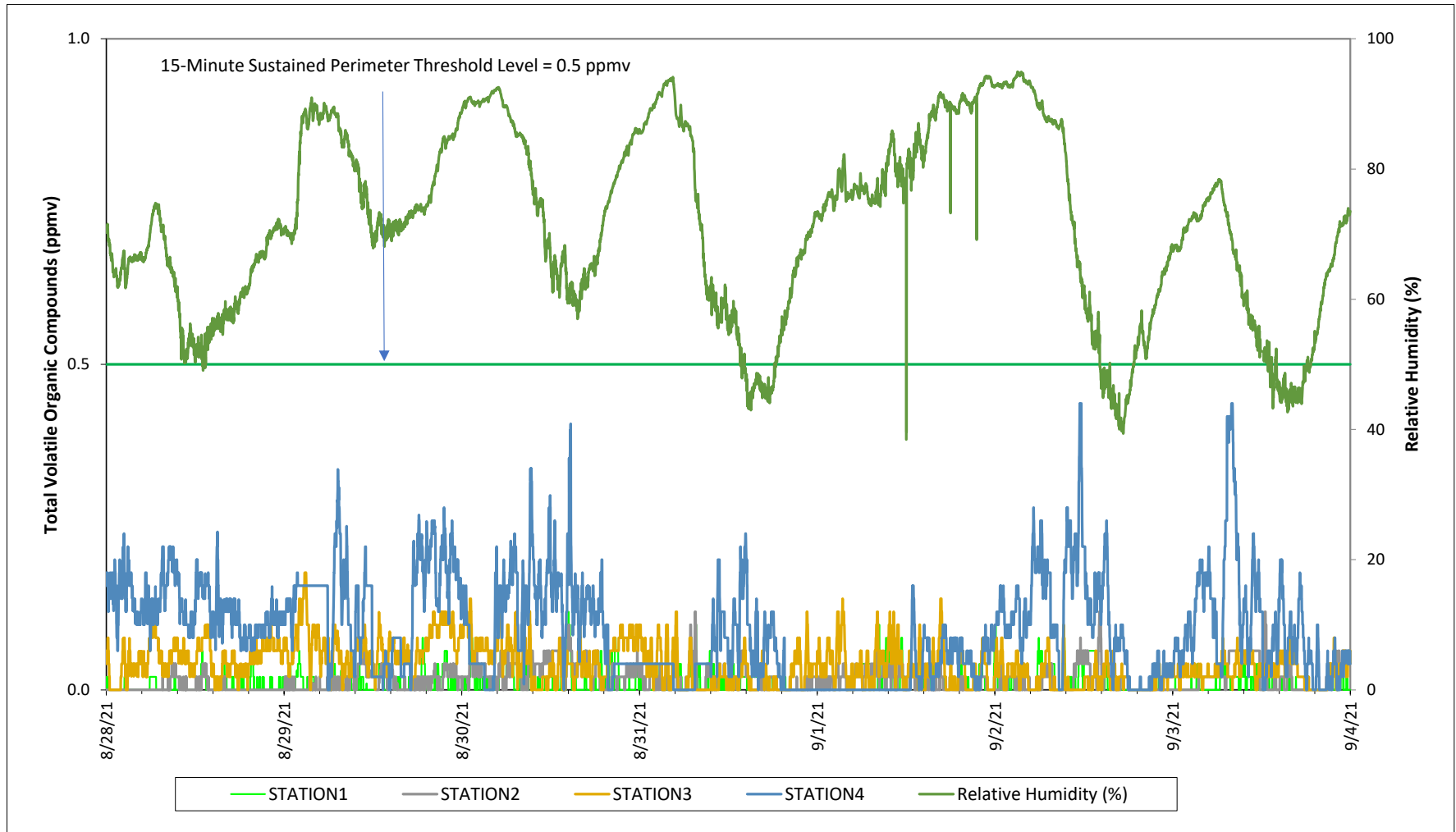
Prepared by National Grid for the Businesses and Residents Located Near the Former  
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Air Quality Monitoring - Respirable Dust





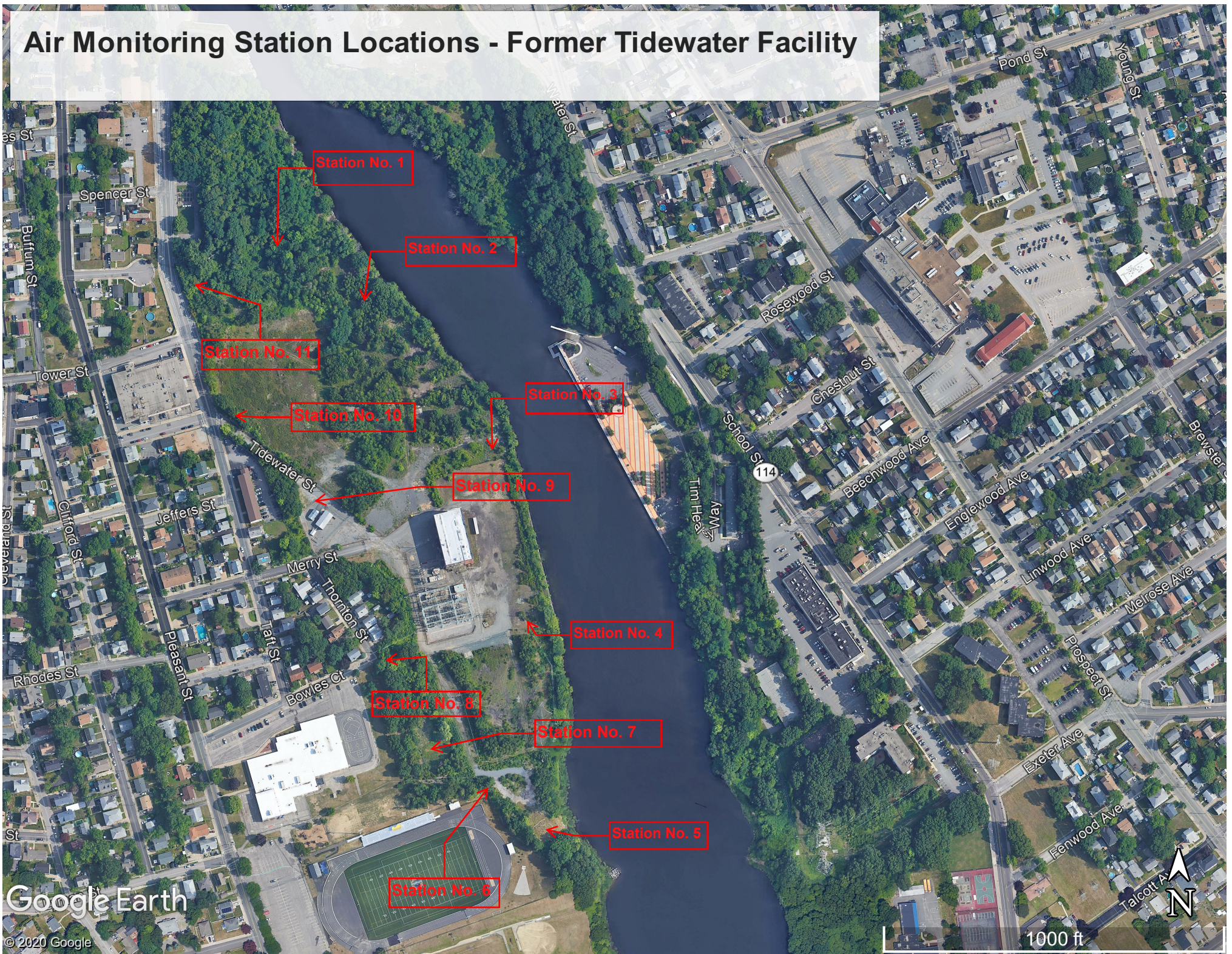
Prepared by National Grid for the Businesses and Residents Located Near the Former  
Tidewater Facility

Air Quality Monitoring - Total Volatile Organic Compounds





# Air Monitoring Station Locations - Former Tidewater Facility



Google Earth

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1000 ft



**Prepared by National Grid for the Businesses and Residents Located Near the Former Tidewater Facility  
Weekly Ambient Air Sampling Results**

Sample Date	Compounds				
	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
	(ppb v/v)				
12-3-20 UP STREAM	0.13	0.22	0.079	0.054	< 0.5
12-3-20 DOWN STREAM	0.13	0.2	0.073	0.05	< 0.5
12-10-20 UP STREAM	0.25	0.23	< 0.2	0.14	< 0.5
12-10-20 DOWN STREAM	0.17	0.2	< 0.2	< 0.7	< 0.5
12-16-20 UP STREAM	0.19	0.2	0.083	0.12	< 0.5
12-16-20 DOWN STREAM	0.13	0.16	0.078	0.094	< 0.5
12-23-20 UP STREAM	0.15	0.16	< 0.2	0.1	< 0.5
12-23-20 DOWN STREAM	0.13	0.11	< 0.2	< 0.7	< 0.5
12-30-20 UP STREAM	0.21	0.22	< 0.2	< 0.7	< 0.5
12-30-20 DOWN STREAM	0.089	< 0.2	< 0.2	< 0.7	< 0.5
1/7/21 UP STREAM	0.29	1.5	0.22	2.1	< 0.5
1/7/21 DOWN STREAM	0.16	0.27	0.086	0.42	< 0.5
1/14/21 UP STREAM	0.43	0.44	< 0.2	0.23	< 0.5
1/14/21 DOWN STREAM	0.4	0.52	0.076	0.3	< 0.5
1-21-21 UPSTREAM	0.15	0.28	0.1	< 0.7	0.24
1-21-21 DOWNSTREAM	0.18	0.23	0.11	0.1	< 0.5
1-28-21 UPSTREAM	0.21	0.19	< 0.2	< 0.7	< 0.5
1-28-21 DOWNSTREAM	0.21	0.17	< 0.2	< 0.7	< 0.5
2-4-21 UPSTREAM	0.2	1.1	0.23	1.4	0.18
2-4-21 DOWNSTREAM	0.23	0.29	0.26	0.29	< 1.1
2-11-21 UPSTREAM	0.19	0.12	< 0.2	< 0.7	< 0.5
2-11-21 DOWNSTREAM	0.17	< 0.2	< 0.2	< 0.7	< 0.5
2-18-21 UPSTREAM	0.46	2.8	0.11	0.25	< 0.5
2-18-21 DOWNSTREAM	0.31	0.42	0.13	0.45	< 0.5
2-25-21 UPSTREAM	< 0.2	0.16	< 0.2	0.16	< 0.5
2-25-21 DOWNSTREAM	0.13	< 0.2	0.081	0.3	< 0.5
3-4-21 UPSTREAM	0.2	0.21	< 0.2	0.18	0.27
3-4-21 DOWNSTREAM	0.15	0.12	< 0.2	0.16	< 0.5
3-11-21 UPSTREAM	0.18	0.17	< 0.2	0.23	0.3
3-11-21 DOWNSTREAM	0.18	0.22	0.23	1.0	< 0.5
3-18-21 DOWNSTREAM	0.44	1.6	0.19	0.67	< 0.5
3-25-21 UPSTREAM	0.17	0.32	0.85	4.1	0.53
3-25-21 DOWNSTREAM	0.33	0.67	0.16	0.57	0.27
4-1-21 UPSTREAM	0.22	0.17	< 0.2	< 0.7	< 0.5
4-1-21 DOWNSTREAM	0.12	0.11	< 0.2	< 0.7	< 0.5
4-8-21 UPSTREAM	0.096	0.12	1.5	8.0	< 0.5
4-8-21 DOWNSTREAM	0.086	0.14	0.086	0.38	0.19
4-15-21 UPSTREAM	0.85	0.57	0.1	0.44	< 0.5
4-15-21 DOWNSTREAM	0.11	0.11	0.26	1.20	< 0.5
4-22-21 UPSTREAM	0.11	< 0.2	< 0.2	< 0.7	< 0.5
4-22-21 DOWNSTREAM	0.11	0.16	< 0.2	< 0.7	< 0.5
4-29-21 UPSTREAM	0.14	0.34	0.11	0.32	0.26
4-29-21 DOWNSTREAM	0.19	0.39	0.11	0.37	0.27
5-6-21 UPSTREAM	0.086	0.15	< 0.2	< 0.7	0.38
5-6-21 DOWNSTREAM	1.0	8.4	0.21	0.69	< 0.5
5-13-21 UPSTREAM	< 0.2	0.36	< 0.2	0.19	0.34
5-13-21 DOWNSTREAM	0.12	< 0.2	< 0.2	< 0.7	< 0.5
5-20-2021 UPSTREAM	0.38	2.5	< 0.2	< 0.7	< 0.5
5-20-2021 DOWNSTREAM	0.16	0.56	0.3	1.40	< 0.5
<b>Project Action Levels</b>	<b>6.2</b>	<b>80</b>	<b>230</b>	<b>23</b>	<b>20</b>

**Prepared by National Grid for the Businesses and Residents Located Near the Former Tidewater Facility  
Weekly Ambient Air Sampling Results**

Sample Date	Compounds				
	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
	(ppb v/v)				
5-27-21 UPSTREAM	0.095	0.12	0.45	2.10	0.4
5-27-21 DOWNSTREAM	0.075	0.094	< 0.2	< 0.7	< 0.5
6-3-21 UPSTREAM	< 0.2	0.16	< 0.2	< 0.7	< 0.5
6-3-21 DOWNSTREAM	0.075	0.11	< 0.2	< 0.7	< 0.5
6-10-21 UPSTREAM	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
6-10-21 DOWNSTREAM	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
6-17-21 UPSTREAM	0.64	0.6	0.48	0.66	0.64
6-17-21 DOWNSTREAM	0.12	0.12	0.16	< 0.7	< 0.5
6-24-21 UPSTREAM	< 0.2	0.17	< 0.2	< 0.7	< 0.5
6-24-21 DOWNSTREAM	< 0.2	0.45	0.19	0.82	< 0.5
7-1-21 UPSTREAM	1.10	7.9	0.12	0.39	< 0.7
7-1-21 DOWNSTREAM	0.13	0.74	< 0.2	0.29	< 0.7
7-8-21 UPSTREAM	< 0.2	0.29	< 0.2	0.38	0.29
7-8-21 DOWNSTREAM	< 0.2	< 0.2	< 0.2	< 0.7	< 0.5
7-15-21 UPSTREAM	0.10	0.28	< 0.2	0.32	< 0.5
7-15-21 DOWNSTREAM	0.14	0.37	0.31	1.5	< 0.5
7-22-21 UPSTREAM	0.27	0.3	< 0.2	< 0.7	< 0.5
7-22-21 DOWNSTREAM	0.30	0.33	< 0.2	< 0.7	< 0.5
7-29-21 UPSTREAM	0.22	0.26	0.1	0.56	0.19
7-29-21 DOWNSTREAM	0.099	0.23	< 0.2	< 0.7	< 0.5
8-5-21 UPSTREAM	0.70	1.2	< 0.2	0.17	< 0.5
8-5-21 DOWNSTREAM	0.310	0.53	< 0.25	< 0.88	< 0.63
8-12-21 UPSTREAM	0.19	0.18	< 0.2	< 0.7	0.2
8-12-21 DOWNSTREAM	1.2	0.7	< 0.2	0.31	< 0.5
8-19-21 UPSTREAM	0.66	6.2	1.2	3.50	< 1.6
8-19-21 DOWNSTREAM	0.21	0.24	< 0.2	0.11	< 0.5
8-26-21 UPSTREAM	0.34	0.73	0.22	0.90	0.18
8-26-21 DOWNSTREAM	0.34	0.63	0.24	0.87	0.31
9-1-21 UPSTREAM	0.17	0.34	< 0.2	< 0.7	< 0.5
9-1-21 DOWNSTREAM	0.18	0.35	< 0.2	0.19	< 0.5
<b>Project Action Levels</b>	<b>6.2</b>	<b>80</b>	<b>230</b>	<b>23</b>	<b>20</b>

**Notes:**

1. The Project Action Levels are consistent with the Air Quality Monitoring Plan developed for the Site.
2. Air samples are collected in stainless steel summa canisters over an approximately 8-hour period.
3. Air samples are analyzed by EuroFins TestAmerica of Burlington, VT.
4. Results and action levels are listed in parts per billion volume/volume (ppb v/v).
5. An upstream ambient air sample was not collected on March 18, 2021 due to a problem with the sampling equipment.