NEW YORK STATE | Department of Environmental Conservation

2026 Annual Monitoring Network Plan

NEW YORK STATE AMBIENT AIR MONITORING PROGRAM

Kathy Hochul, Governor | Amanda Lefton, Commissioner

Table of Contents

List of Tables 6
List of Figures 7
Introduction 8
Background 8
Climate Justice and Disadvantaged Communities 11
Environmental Justice Areas 11
Monitoring Related Research and Investigations 13
Publications 13
NYSDEC Collaborations 14
Criteria Contaminants 16
Carbon Monoxide 17
Near-Road CO Monitoring 18
Nitrogen Dioxide 19
Near-Road NO_2 Monitoring 21
Lead 22
PM_{10} 23
$PM_{2.5}$ 24
$PM_{2.5}$ FRM Monitoring Instrumentation 25
Continuous PM Monitoring 27
Speciation 30
Continuous Speciation 31
Ultrafine Particulate Monitoring 32
Sulfur Dioxide 32
Ozone 34
Air Toxics Program 37
National Air Toxics Trends Stations (NATTS) 37
NY Toxics Monitoring Network 38
Photochemical Assessment Monitoring Stations (PAMS) 42
Enhanced Ozone and Ozone Precursor Monitoring 46
NCore Sites 47
NCore Monitoring Objectives 48
NCore Primary Monitoring Parameters 48
Acid Deposition Monitoring Network 48
Anticipated Changes in the Next 18 Months 50
Miscellaneous Projects 50
Proposed Changes and Additions at Existing Sites 50
Temporary move of the $PM_{2.5}$ Federal Reference Method (FRM) from JHS45 to IS52 50
Temporary Closure of the JHS126 $PM_{2.5}$ FRM site 50
General site improvements 52
Monitoring Sites 53
Revision Record 96

List of Abbreviations

BAQS | Bureau of Air Quality Surveillance ..... passim
CBSA | Core-Based Statistical Area.....
EPA Environmental Protection Agency ..... passim
FEM | Federal Equivalent Method.....
FRM | Federal Reference Method ..... passim
GC | Gas Chromatography.....
NAAQS | National Ambient Air Quality Standards ..... passim
NADP | National Acid Deposition Program.....
NCore | National Core Multipollutant Monitoring Stations ..... passim
NDIR | Non-Dispersive Infrared.....
NO_X | Nitrogen Oxides..... passim
NO_Y | Sum of Reactive Nitrogen Oxides..... passim
NSR | New Source Review .....
O_3 | Ozone ..... passim
PAH | Polycyclic Aromatic Hydrocarbons .....
SO_2 | Sulfur Dioxide ..... passim
SO_X | Sulfur oxides.....
VOC | Volatile Organic Compounds ..... passim
$\mu g/m^3$ | Micrograms per Cubic Meter .....

List of Tables

Table 1 National Ambient Air Quality Standards....16
Table 2 NO2 Monitoring Types by Site....20
Table 3 Characteristics for New York State Near-Road Sites....21
Table 4 Source Designations of Lead Monitors....22
Table 5 Annual $PM_{2.5}$ NAAQS Comparability....29
Table 6 NATTS Pollutants of Concern....37
Table 7 Target List of Volatile Organic Compounds....39
Table 8 Information on PAMS Sites....43
Table 9 Instrumentation for Gaseous Pollutants....44
Table 10 VOC Methods and Sampling Frequencies....44
Table 11 Target Compound List for Carbonyl Sampling....45
Table 12 PAMS Target Compounds List....45
Table 13 NCore Sites....47
Table 14 Acid Deposition Monitoring Network....49
Table 15 Reported Emissions....51
Table 16 Site Waivers....54
Table 17 Revision Record....96

List of Figures

Figure 1-1 Map of Ambient Air Monitoring Sites in New York State, Excluding NYC 9
Figure 1-2 Map of Ambient Air Monitoring Sites in NYC 10
Figure 1-3 Map of CLCPA Disadvantaged Communities in New York State 11
Figure 1-4 Map of Potential Environmental Justice Areas in New York State 12
Figure 3-1 Carbon Monoxide Monitors and Concentration Trends 17
Figure 3-2 Map of Carbon Monoxide Monitors 18
Figure 3-3 Nitrogen Dioxide Monitors and Concentration Trends 19
Figure 3-4 Map of Nitrogen Oxides Monitoring Sites 20
Figure 3-5 PM_{10} Monitors and Concentration Trends 23
Figure 3-6 Map of PM_{10} Monitoring Sites 24
Figure 3-7 $PM_{2.5}$ FRM Monitors and Concentration Trends 25
Figure 3-8 Map of Manual $PM_{2.5}$ (FRM) Monitoring Network 26
Figure 3-9 TEOM $PM_{2.5}$ Monitors and Concentration Trends 27
Figure 3-10 Map of Continuous Non-FEM $PM_{2.5}$ Monitoring Network 28
Figure 3-11 Map of Continuous FEM $PM_{2.5}$ Monitoring Network 29
Figure 3-12 Map of Speciation Sampling Sites 31
Figure 3-13 Sulfur Dioxide Monitors and Concentration Trends 33
Figure 3-14 Source Oriented Sulfur Dioxide Monitors and Concentration Trends 34
Figure 3-15 Map of Sulfur Dioxide Monitoring Sites 34
Figure 3-16 Ozone Monitors and 8 hour Concentration Trends 35
Figure 3-17 Map of Ozone Monitoring Sites 36
Figure 4-10 Map of Toxics Monitoring Sites 41
Figure 4-11 Map of PAMS Sites in NYS 43
Figure 4-12 Emissions from Ecobat Resources New York LLC 51
Figure 4-13 Lead NAAQS Values Measured at Wallkill Site vs. NAAQS Limit 52
Figure 8-1 Map of Site Locations for Northern Monitoring Operation 53
Figure 8-2 Map of Site Locations for Southern Monitoring Operation 54

Introduction

As part of the regulations finalized by the U.S. Environmental Protection Agency (EPA) on October 17th, 2006, monitoring agencies are required to "adopt and submit to the Regional Administrator an annual monitoring network plan which shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations including FRM, FEM, NCore stations, CSN stations, State speciation stations, SPM stations, and/or, in serious, severe and extreme ozone non-attainment areas, PAMS stations, and SPM monitoring stations." This document is prepared and submitted as part of the fulfillment of these requirements.

Background

New York State began a concerted effort to control air pollution back in 1957, when the State Legislature enacted one of the nation's first comprehensive air pollution control laws. An Air Pollution Control Board was established to develop and direct a public information program for monitoring contaminant levels, and to conduct area studies and inventories outlining major problems. In December 1964, New York State developed air quality standards to protect its citizens against adverse health effects. These standards provided a long-range planning tool and established numerical air quality limits for the following contaminants: particulate matter (PM), sulfur dioxide (SO_2), carbon monoxide (CO), oxidants, hydrogen sulfide, fluoride, beryllium and sulfuric acid mist.

In 1966, the Legislature responded to the increasing pollution levels by restructuring the administrative authority into the Department of Health, under which the Division of Air Resources was created. Major legislation was also introduced to provide increased efficacy of rules and regulations. That year also marked the severe New York City Thanksgiving holiday air pollution episode brought upon by a temperature inversion that lasted through the weekend.

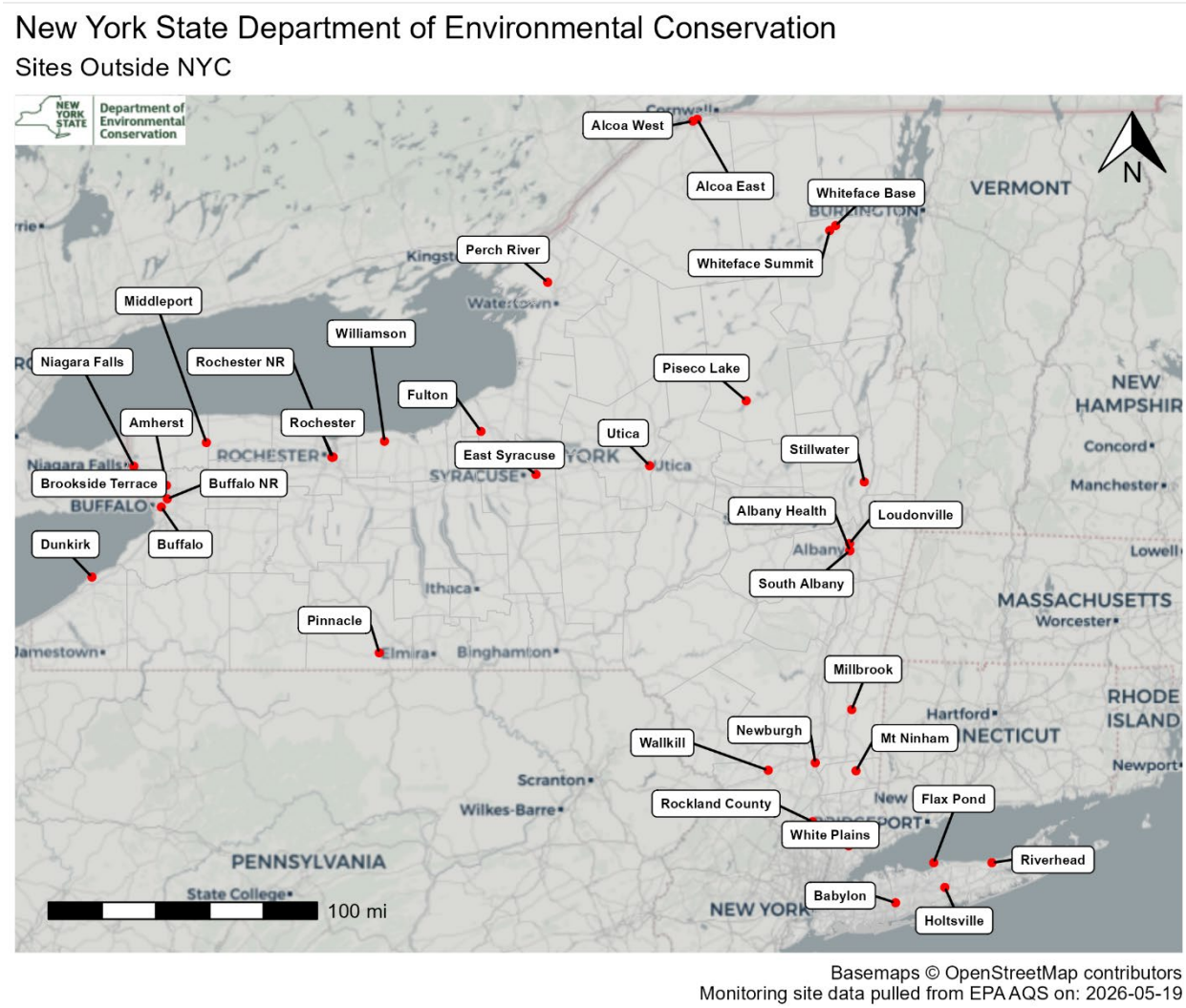
When the first Earth Day was held in 1970, it had become apparent that pollution abatement strategies in place were inadequate, and air quality—along with water quality and solid waste—became cornerstones of the emerging U.S. environmental conscience. The 1970 Clean Air Act Extension, and the establishment of the U.S. EPA in that same year, were defining moments in the history of air quality in this country. That same year, the Department of Environmental Conservation (NYSDEC) was created. The Division of Air Resources was transferred to the new NYSDEC and its administrative functions restructured and streamlined. Nine new regional offices were established to carry out responsibilities relating to pollution control of sources within their respective part of the State.

In 1977, the first set of Clean Air Act amendments was adopted because many states failed to meet mandated targets. One of the most effective of these was the New Source Review (NSR), which addresses older facilities that had been "grandfathered" by the original law. In 1990, additional amendments to the Clean Air Act included provisions for attainment and maintenance of national ambient air quality standards, mobile sources, air toxics, acid deposition control, permits, stratospheric ozone and global climate protection, enforcement, visibility improvement near National Parks, and other provisions relating to research, development, and air monitoring.

Through the years, ambient monitoring has always been an important and integral part of the overall effort to manage our environmental resources. The Bureau of Air Quality Surveillance (BAQS), which was originally established in the Division of Air Resources under the Department of Health in 1966, has been performing ambient air monitoring since.

BAQS currently operates the following quantities and types of monitors: 29 ozone, 10 SO_2, 7 NO_x ($NO + NO_2$), 3 NO_y ($(NO + NO_2 + NO_Z)$, 10 carbon monoxide (CO), 21 Federal Reference Method (FRM) $PM_{2.5}$, 9 tapered instrument oscillating microbalance (TEOM) $PM_{2.5}$, 5 FRM PM_{10}, 11 T640 optical PM instruments ($PM_{2.5}$,PM_{10}), 8 CSN, 2 speciated carbon, 6 black carbon

(aethalometer), 2 wet deposition mercury, 4 particulate sulfate, 5 acid deposition, 1 low volume Total Suspended Particulate (TSP)-lead, 2 PM_{10} metals, 12 toxics, 11 carbonyls, 2 PAMS, and 2 PAHs sites. Figure 1-1 and Figure 1-2 below show the geographic locations of monitoring sites in all nine regions of the State.



Basemaps © OpenStreetMap contributors
Monitoring site data pulled from EPA AQS on: 2026-05-19

Figure 1-1 Map of Ambient Air Monitoring Sites in New York State, Excluding NYC

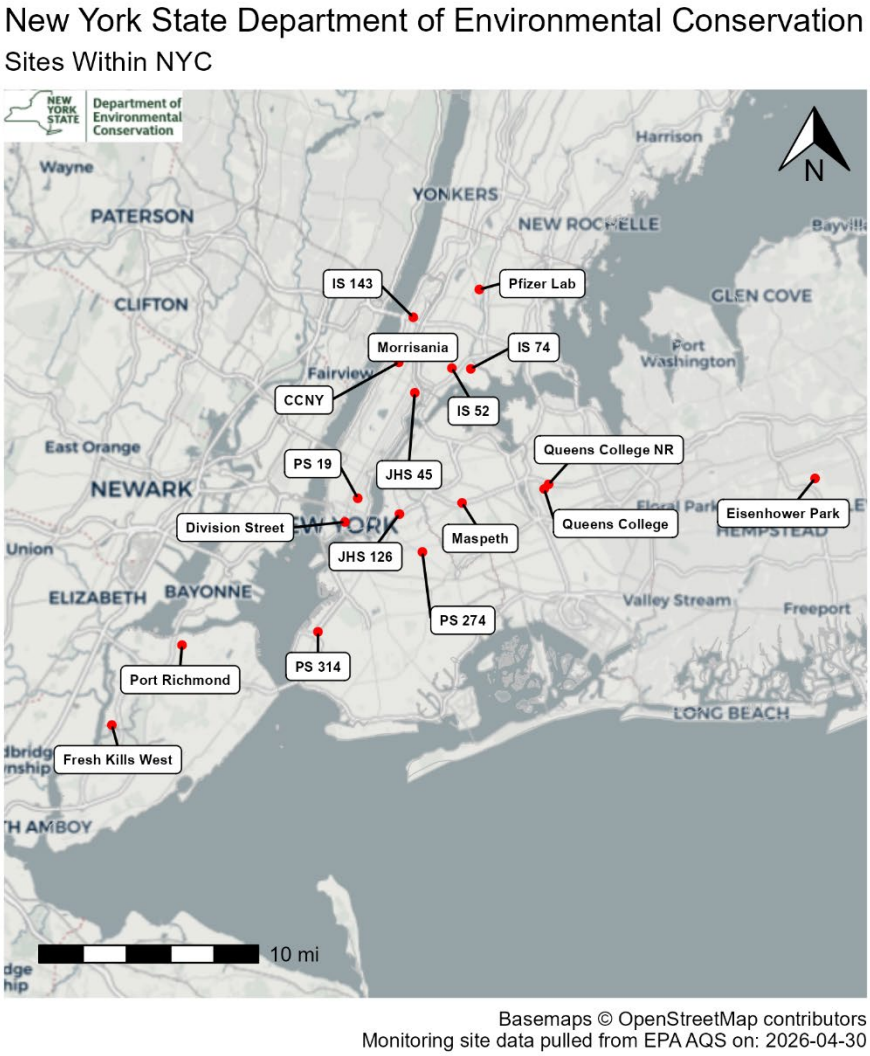
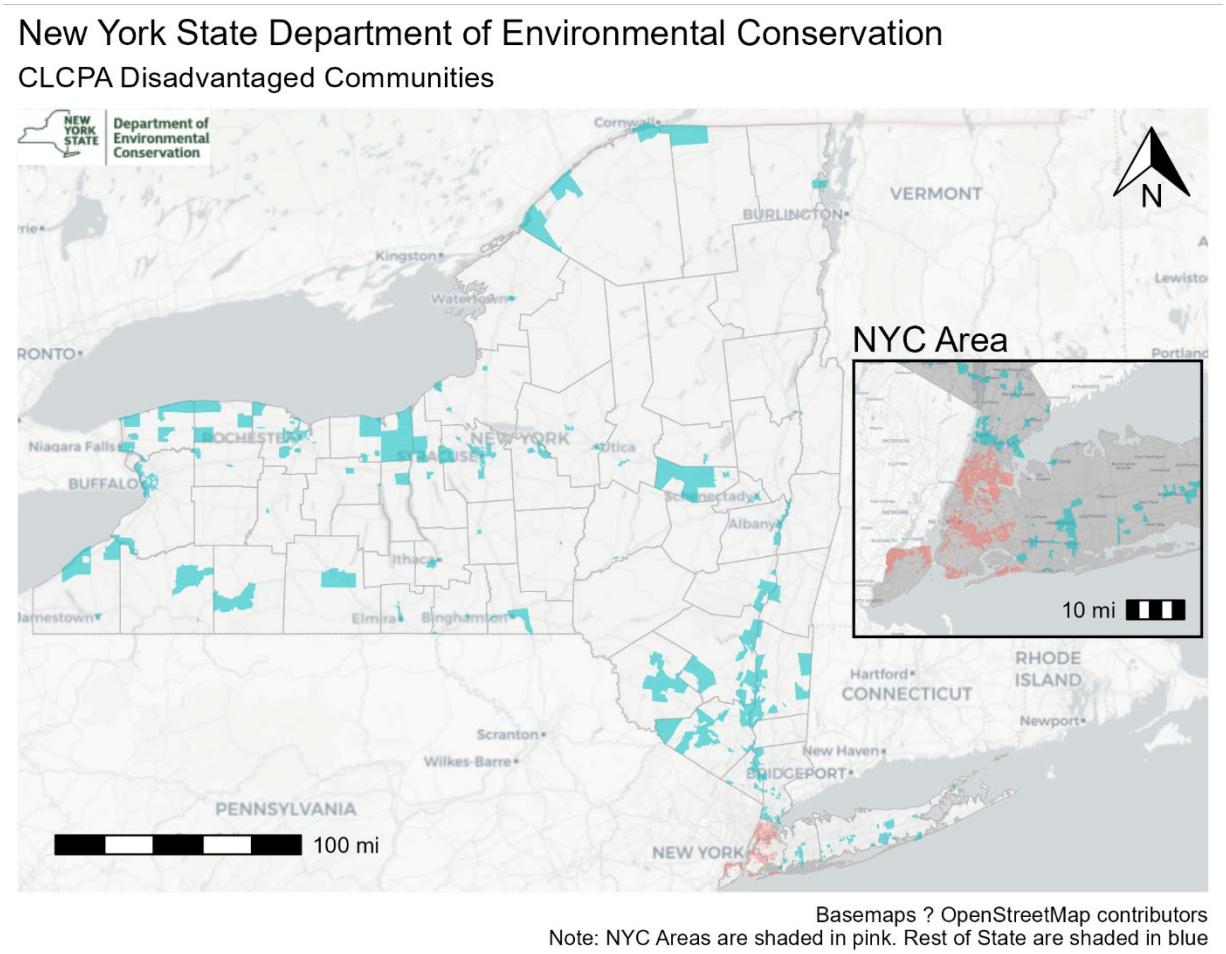


Figure 1-2 Map of Ambient Air Monitoring Sites in NYC

Climate Justice and Disadvantaged Communities

On July 18, 2019, the Climate Leadership and Community Protection Act (Climate Act) was signed into New York State law. New York State's Climate Act is among the most ambitious climate laws in the nation and requires New York to reduce economy-wide greenhouse gas emissions by 40 percent by 2030 and no less than 85 percent by 2050, from 1990 levels. The Climate Act requires New York State to invest or direct resources to ensure that disadvantaged communities receive at least 35 percent of total benefits from spending on clean energy and energy efficiency programs - one of several ways the Climate Act prioritizes climate justice. The Climate Act also requires State agencies and entities to prioritize reduction of greenhouse gas emissions' co-pollutants and ensure State decision-making does not disproportionately burden disadvantaged communities.

A map of disadvantaged communities is below Figure 1-3.



Basemaps ? OpenStreetMap contributors
Note: NYC Areas are shaded in pink. Rest of State are shaded in blue

Figure 1-3 Map of CLCPA Disadvantaged Communities in New York State

For more information about the NYS's efforts to address environmental issues and concerns that impact disadvantaged communities through grant opportunities, enforcement of environmental laws and regulations, consultation, guidance, and enhanced public participation, please see the Climate Leadership and Community Protection Act website here.

Environmental Justice Areas

In New York State, Environmental Justice (EJ) is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

New York State Environmental Justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities.

A map of potential EJ areas in the State is shown in Figure 1-4. In our network, there are 26 air monitors, 15 of which are downstate in potential EJ areas.

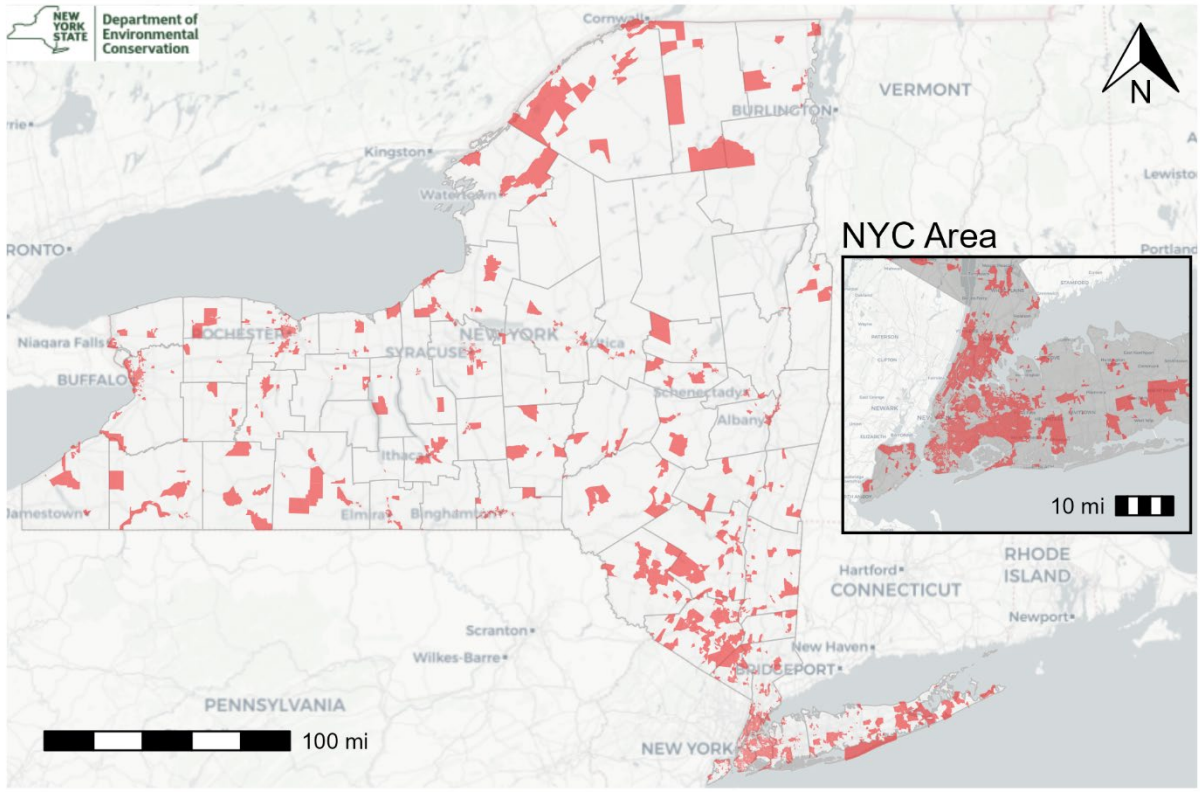


Figure 1-4 Map of Potential Environmental Justice Areas in New York State

For more information about the NYSDEC's efforts to address environmental issues and concerns that affect low income and minority communities through grant opportunities, enforcement of environmental laws and regulations, consultation, guidance, and enhanced public participation, please see our website here: Office of Environmental Justice

Monitoring Related Research and Investigations

In addition to the routine monitoring work, bureau staff collaborate with researchers from other bureaus, agencies, and academic institutions on a multitude of air pollution related studies. These endeavors provide valuable data for the regulatory, scientific, and health research communities. Study findings are communicated through journal publications, as well as presentations at technical meetings and conferences. Listings of peer-reviewed scientific articles and oral/poster presentations resulting from recent BAQS monitoring activities are provided below from 2021 to current.

Publications

Tao, M., A. M. Fiore, A. N. Karambelas, P. J. Miller, L. C. Valin, L. M. Judd, M. Tzortziou, A. Whitehill, A. Teora, Y. Tian, K. L. Civerolo, D. Tong, S. Ma, S. B. Adamo, and T. Holloway, Formaldehyde and nitrogen dioxide diurnal cycles in New York: insights into surface ozone formation, J. Geophys. Res., 130, e2024JD040922, 2025

*Shuting Lydia Yang*Arvind P. Ravikumar. Assessing the Performance of Point Sensor Continuous Monitoring Systems at Midstream Natural Gas Compressor Stations. ACS EST Air 2025, 2, 4, 466–475*

Developing Measurement-Informed Methane Emissions Inventory Estimates at Midstream Compressor Stations Arvind P. Ravikumar, Hugh Li, Shuting Lydia Yang, and Mackenzie L. Smith ACS ES&T Air 2025 2 (3), 358-367 DOI: 10.1021/acsestair.4c00237

Ninneman, M., Concentrations and Fluxes of Per- and Polyfluoroalkyl Substances in Precipitation in Rural and Urban New York State, National Air Toxics Conference, Apr 17, 2025.

Savadkoohi, Pandolfi, Rattigan, Querol, Alastuey, Hopke. Multi-site comparison of equivalent Black Carbon mass concentrations (eBC) and source apportionment in United States: Southern California Basin and Rochester-New York.

Zhang, J., J. Wang, A. Catena, M.J. Schwab, M. Ninneman, D. Felton, and J. Schwab, Enhanced summertime PM2.5-suppression of O3 formation over the Eastern U.S. following the O3-sensitivity variations, Environ. Sci.: Atmos., 4, 73–79, 2024.

Jaffe, D.A., M. Ninneman, L. Nguyen, H. Lee, L. Hu, D. Ketcherside, L. Jin, E. Cope, S. Lyman, C. Jones, T. O'Neil, and M.L. Mansfield, Key results from the salt lake regional smoke, ozone and aerosol study (SAMOZA), J. Air Waste Manage. Assoc., 74, 163–180, 2024.

Ninneman, M., S. Lyman, L. Hu, E. Cope, D. Ketcherside, and D. Jaffe, Investigation of Ozone Formation Chemistry During the Salt Lake Regional Smoke, Ozone, and Aerosol Study (SAMOZA), National Air Quality Conference, Mar 20, 2024.

Hass-Mitchell, T., and 20 co-authors, Increasing contributions of temperature-dependent oxygenated organic aerosol to summertime particulate matter in New York City, ACS ES&T Air, 1, 113-128, 2024.

O.V. Rattigan, Y.T. Hassanzadeh, A.C. Teora, H.D. Felton, K.L. Civerolo, S. Lance, J.J. Schwab, P.K. Hopke, Ultrafine particle measurements in New York State, Atmospheric Pollution Research, Volume 15, Issue 8,2024, 102164, ISSN 1309-1042, https://doi.org/10.1016/j.apr.2024.102164.

Hopke, P. K., Y. Chen, D. C. Chalupa, and D. Q. Rich, Long term trends in source apportioned particle number concentrations in Rochester NY, Environmental Pollution, 347, https://doi.org/10.1016/j.envpol.2024.123708, 2024.

Yun, J., W. Hao, Y. Tian, E. Zalewsky, J. Lin, D. McLeod, S. McCusker, K. Civerolo, A comparison of CAMx ozone source apportionment modeling results using emissions from two Electricity Generating Unit projection models and their impacts on upwind state contributions to downwind monitors, 23rd Annual CMAS Conference, Chapel Hill, NC, October 21-23, 2024

Hassan, Schwab, Rattigan; Estimating the PM2.5 mass deficit trends, contributing species, and relation to ambient temperature at three New York State sites. Aerosol and Air Quality Research, 24, 240128, 2024.

Yun, J., W. Hao, E. Zalewsky, Y. Tian, Civerolo, Contributions from Upwind States to Violating Ozone Monitors in the Northeast: A Comparison of EPA's Final Good Neighbor Plan and DEC's Modeling Work, NYSDEC poster session, May 25, 2023

Ninneman, M., S. Lyman, L. Hu, E. Cope, D. Ketcherside, and D. Jaffe, Investigation of Ozone Formation Chemistry during the Salt Lake Regional Smoke, Ozone, and Aerosol Study (SAMOZA), ACS Earth Space Chem., 7, 2521–2534, 2023.

Recommendations for reporting equivalent black carbon (eBC) mass concentrations based on long-term pan-European in-situ observations. Savadkoohi et. Al, . Env. Int., 185, 108553, 2024.

NYSDEC Collaborations

The Bureau of Air Quality Surveillance collaborates with many different research groups by providing access to NYSDEC air monitoring stations as well as data produced by BAQS. These collaborations vary in duration and scope, depending to the goals of the research partners. Below are some of the collaborations that NYSDEC has worked with in recent years at various air monitoring stations.

New York City Community Air Survey (NYCCAS)
The New York City Department of Health and Mental Hygiene and CUNY (City University of New York) - Queens College are conducting the New York City Community Air Survey (NYCCAS) to evaluate how air quality differs across New York City. This program studies how pollutants from traffic, buildings (boilers and furnaces), and other sources impact air quality in different neighborhoods. Link

Columbia University at Queens College
Researchers at Columbia University have been monitoring fine particulates at Queens College since 2017. Data are collected from students on the campus and these data are merged with data collected at Queens College to assess the correlation. Link

NESCAUM Long Island Sound Tropospheric Ozone Study (LISTOS)
Beginning in 2018, a group of State, Federal and Academic researchers started examining the formation of ozone and its precursors from the I-95 corridor through NYC, Long Island, Long Island Sound and on to Connecticut and Rhode Island. The work is designed to complement the Photochemical Assessment Monitoring Stations (PAMS) network. Link

Atmospheric Measurements in Support of Methane Source Characterization within New York State – Harlem; Róisín Commane, Columbia University. Link

Mid-scale RI-1 (M1:IP): Atmospheric Science and Chemistry mEasurement NeTwork (**ASCENT)** Nga Lee Ng Georgia Institute of Technology. ASCENT will provide the first high time-resolution, long-term measurements of the properties of atmospheric particulates, known as aerosols. Link:

Criteria Contaminants

The EPA is required to set National Ambient Air Quality Standards (NAAQS) for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against visibility impairment, damage to animals, crops, vegetation, and buildings. The Clean Air Act requires periodic review of the science upon which the standards are based and the standards themselves. Listed below in Table 1 are the NAAQS for six principal pollutants, which are called "criteria" pollutants.

Table 1 National Ambient Air Quality Standards

Pollutant	Standard Type	Averaging Time	Level	Unit	Form
Carbon Monoxide (CO)	primary	8 hours	9	ppm	Not to be exceeded more than once per year
Carbon Monoxide (CO)	primary	1 hour	35	ppm	Not to be exceeded more than once per year
Lead (Pb)	primary and secondary	Rolling 3-month	0.15	$\mu g/m^3$	Not to be exceeded
Nitrogen Dioxide (NO_2)	primary	1 hour	100	ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
Nitrogen Dioxide (NO_2)	primary and secondary	1 year	53	ppb	Annual Mean
Ozone (O_3)	primary and secondary	8 hours	0.070	ppm	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution $PM_{2.5}$	primary	1 year	9	$\mu g/m^3$	annual mean, averaged over 3 years
Particle Pollution $PM_{2.5}$	secondary	1 year	15	$\mu g/m^3$	annual mean, averaged over 3 years
Particle Pollution $PM_{2.5}$	primary and secondary	24 hours	35	$\mu g/m^3$	98th percentile, averaged over 3 years
Particle Pollution PM_{10}	primary and secondary	24 hours	150	$\mu g/m^3$	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)	primary	1 hour	75	ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
Sulfur Dioxide (SO_2)	secondary	3 hours	0.5	ppm	Not to be exceeded more than once per year

Carbon Monoxide

Carbon monoxide (CO) is a colorless and odorless gas produced as a primary pollutant during the combustion of fossil and biomass fuels. Vegetation also can emit CO directly into the atmosphere as a metabolic by-product. Sources such as motor vehicles, non-road combustion engines or vehicles, and biomass burning can cause high concentrations of CO. Motor vehicle exhaust contributes about 60 percent of all CO emissions nationwide. Indoor sources include unvented, malfunctioning, or misused combustion appliances, combustion engines in garages or basements, and tobacco combustion.

CO enters the bloodstream through the lungs and reduces oxygen delivery to the body's organs and tissues. The health threat from levels of CO sometimes found in the ambient air is most serious for those who suffer from cardiovascular diseases such as angina pectoris. At much higher levels of exposure not commonly found in ambient air, CO can be poisonous, and even healthy individuals may be affected.

There are two primary NAAQS for ambient CO: a 1-hour average of 35 ppm and an 8-hour average of 9 ppm. These concentrations are not to be exceeded more than once per year. There currently are no secondary standards for CO.

The number of monitors and concentration trends over the years in New York State are depicted in . It clearly demonstrates that the current ambient levels of CO are well below the NAAQS, despite the continual increase in automobiles and vehicle-miles traveled in the State. As of 2002, all counties in the State have achieved attainment designation. CO monitoring is required at NCore, Near Road, and PAMS sites.

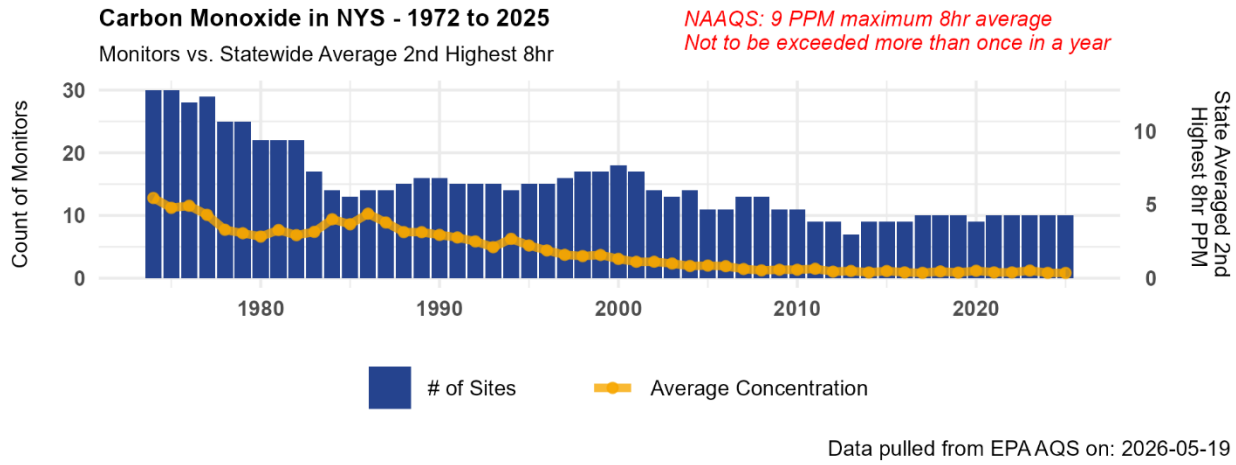


Figure 3-5 Carbon Monoxide Monitors and Concentration Trends

NYSDEC uses TEI Model 48i-TLE, TEI Model 48iQ-TL, and Teledyne API 300 EU instruments that employ the NDIR gas filter correlation method for the continuous measurement of CO. Currently there are ten CO monitors in operation statewide, including the near-road sites in New York City, Buffalo, and Rochester.

Near-Road CO Monitoring

The EPA updated the monitoring regulations for CO in August 2011, adding a requirement to perform CO monitoring at one location on a busy roadway in each city (CBSA) with a population over 1 million. The near-road CO monitors are expected to be collocated with the existing near-road monitors established for monitoring nitrogen dioxide (NO_2). The NYSDEC currently operates Near-Road CO at all near-road sites.

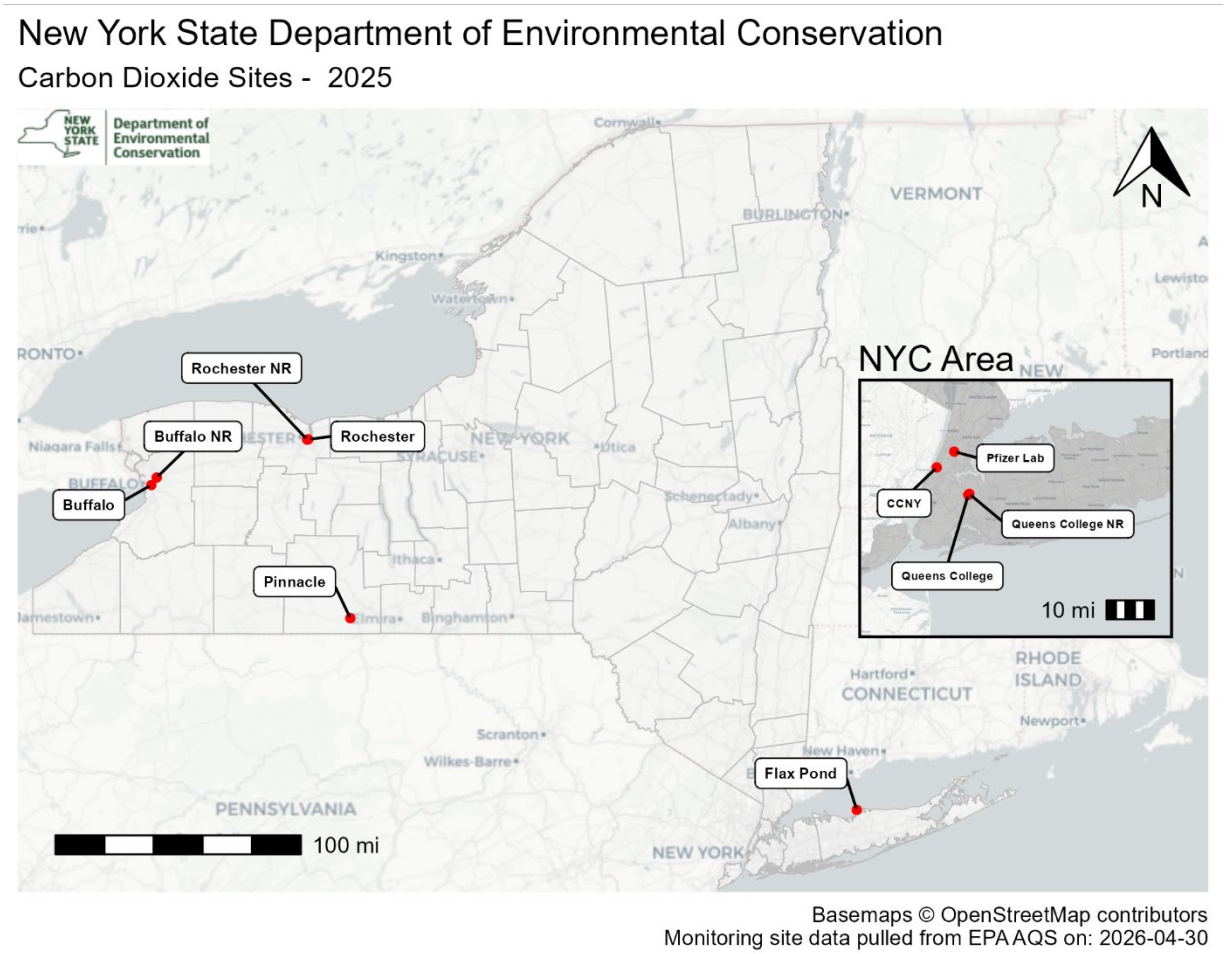


Figure 3-6 Map of Carbon Monoxide Monitors

Nitrogen Dioxide

Many chemical species of nitrogen oxides (NO_x) exist, but nitrogen dioxide (NO_2) is the species most concerning for human health. Breathing air with a high concentration of NO_2 can irritate airways in the human respiratory system. Such exposures over short periods can aggravate respiratory diseases, particularly asthma. Long exposures to elevated concentrations of NO_2 may contribute to developing asthma and can increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly, are generally at greater risk for the health effects of NO_2. NO_2, along with other NO_x, reacts with other chemicals in the air to form both particulate matter and ozone. Both of these are also harmful when inhaled due to effects on the respiratory system.

Natural sources include intrusion of stratospheric NO_x, bacterial and volcanic action, and lightning. The major source of anthropogenic NO_x emissions into the atmosphere is the combustion of fossil fuels in stationary sources (heating, power generation) and in motor vehicles (internal combustion engines). Other contributions of NO_2 to the atmosphere come from specific non-combustion industrial processes, such as the manufacture of nitric acid, the use of explosives, and welding

Both the primary and secondary NAAQS for NO_2 are 53 ppb annual arithmetic average (mean), not to be exceeded. In January 2013, the EPA revised the NAAQS to include an hourly standard of 100 ppb of NO_2. Figure 3-3 shows the number of monitoring sites and annual statewide NO_2 concentration trends over the years.

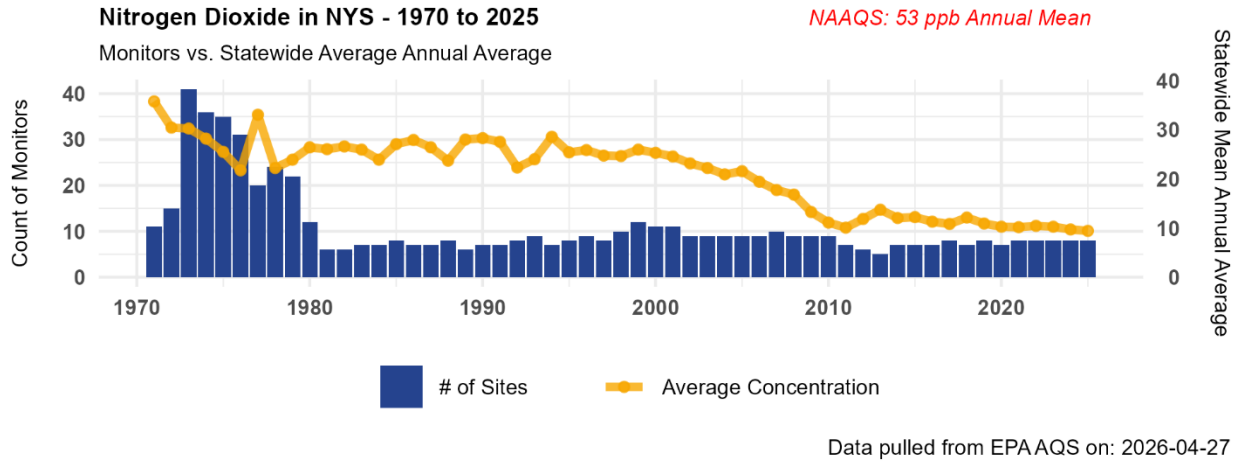


Figure 3-7 Nitrogen Dioxide Monitors and Concentration Trends

In New York, continuous NO_2 measurements are collected indirectly using the gas phase chemiluminescence technology and directly using Cavity Attenuated Phase Shift (CAPS) technology. NO/NO_y measurements are included within the NCore multi-pollutant site requirements and the PAMS program. These NO/NO_y measurements will produce conservative estimates for NO_2 that can be used to ensure tracking continued compliance with the NO_2 NAAQS. In 2012, the practice of submitting the NO_Y-NO measurements as NO_2 discontinued, and the values are not part of statewide annual average calculations. The sites at which NO_2 is shown in Figure 3-4, and each monitoring type is given in Table 2.

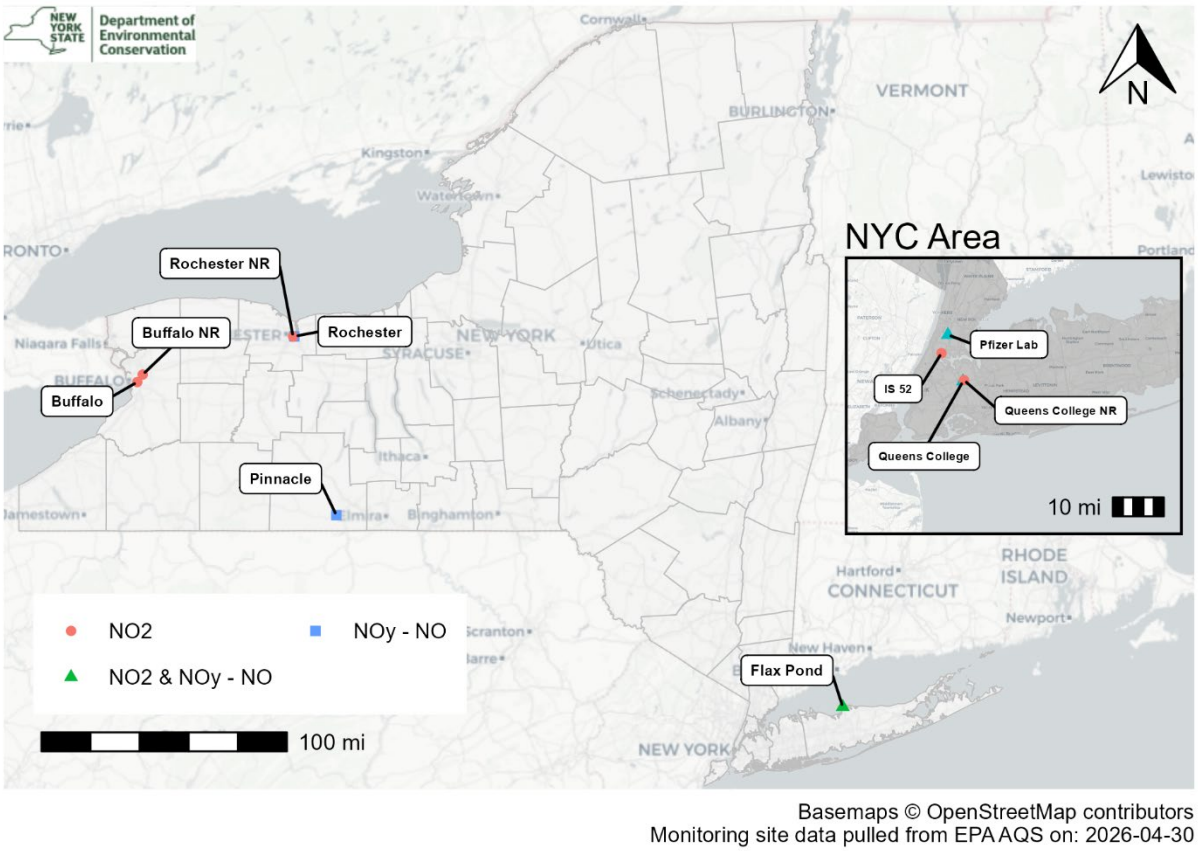


Figure 3-8 Map of Nitrogen Oxides Monitoring Sites

Table 2 NO2 Monitoring Types by Site

AQS ID	Public Site Name	NO2 Monitor Type
36-005-0110	IS 52	AREA
36-005-0133	Pfizer Lab	AREA
36-029-0005	Buffalo	AREA
36-029-0023	Buffalo NR	MOBILE
36-031-0003	Whiteface Base	AREA
36-055-0015	Rochester NR	AREA
36-055-1007	Rochester	AREA
36-081-0124	Queens College	AREA
36-081-0125	Queens College NR	MOBILE
36-101-0003	Pinnacle	AREA
36-103-0044	Flax Pond	AREA

Near-Road NO_2 Monitoring

The primary aim of the near-road NO_2 network is to monitor where peak, ambient NO_2 concentrations are expected to occur as a result of on-road mobile source emissions. The sites will also represent the worst case for population exposure for each CBSA since the sites are at locations where NO_2 concentrations are expected to be high for one or more hours at a time.

Table 3 Characteristics for New York State Near-Road Sites

	Buffalo	Rochester	Queens
Target Road	I90 between Exit 51 and Exit 52	I490 Winton Road Acc	I495 between Main St. – Kissena Blvd
AADT (Rank)	131,020 (2)	110,990 (3)	166,340 (115)
Distance from probe to Target Road	20 meters	20 meters	28 meters
Probe Height	4 meters	4 meters	4 meters
Start Date	4/1/2014	12/18/2014	Est. 1/1/2016
Latitude	42° 55’ 16” N	43° 8'42.08" N	40°44'21.49" N
Longitude	-78° 45’ 58” W	-77°33'27.59" W	-73°49'3.76" W

Near-road NO_2 monitoring commenced at the Buffalo and Rochester sites on April 1, 2014, and December 18, 2014, respectively. The Queens Near-Road began operation on April 1st, 2017.

Lead

Exposure to lead (Pb) occurs through ingestion of lead in food, water, soil, or dust and through inhalation. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, and/or behavioral disorders. Additionally, even low levels of lead exposure may cause central nervous system damage in fetuses and children.

In November of 2008, the EPA set the NAAQS for lead to not exceed 0.15 $\mu g/m^3$ in total suspended particles averaged over rolling 3-months evaluated over a 3-year period. These new regulations replaced the requirements for population-oriented sampling with lead monitors at the urban NCore sites. Additionally, as part of these lead monitoring requirements, agencies are required to monitor ambient air near lead sources which are expected or have a potential to exceed the NAAQS. At minimum, monitoring agencies must monitor near lead sources that emit 1.0 ton per year (tpy) or more.

These new regulations required an airport monitoring study was done to determine the need for monitoring of airports that emit less than 1.0 tpy of lead. A 12-month monitoring study at Brookhaven Airport concluded in October 2012. The Republic Airport monitoring began in October 2012 and completed a year later. Both sites exhibited lead concentrations significantly below the NAAQS, and EPA approved the discontinuation of airport monitoring.

Federal Reference Method (FRM) particulate lead samples are collected on glass fiber filters using a standard TSP high volume sampler which are subsequently analyzed by the laboratory using atomic absorption spectroscopy. Under the new rule, EPA is allowing lead-PM_{10} in lieu of lead-TSP where the maximum 3-month arithmetic mean lead concentration is expected to be less than 0.10 $\mu g/m^3$ (i.e., two thirds of the NAAQS) and where sources are not expected to emit lead. The population-oriented lead monitors at the NCore or NATTS sites are located away from known sources of lead and utilize lead-PM_{10} samplers.

There is one lead-TSP monitoring site in operation in Wallkill near a lead-acid battery recycling facility. The source-oriented monitoring site (AQS site ID # 36-071-3002) is in place as the facility had the potential to exceed the level of the NAAQS. Two urban CBSA monitors (low volume PM_{10}) are operating at the NATTS sites in the Bronx and Rochester.

In October 2016, the facility in Wallkill installed new emission control technologies that have led to a drastic reduction in lead emissions. These reductions caused ambient lead values to drop so low that the NYSDEC closed a redundant lead-TSP site at Ballard Road at the end of 2017. Additionally, the NYSDEC has transitioned the equipment from high volume TSP sampling to PM_{10} lead sampling.

Table 4 Source Designations of Lead Monitors

AQS ID	Public Site Name	Source-Oriented?
36-055-1007	Rochester	No
36-071-3002	Wallkill	Yes
36-081-0124	Queens College	No

Particulate Matter

PM_{10}

In 1987, EPA revised the 1971 standards in order to protect against the adverse health effects of inhalable airborne particles that can be deposited in the lower (thoracic) regions of the human respiratory tract, with PM_{10} as the indicator. EPA established primary and secondary PM_{10} standards for two averaging times: 150 µg/m^3 (24 hour average, with no more than one expected exceedance per year) and 50 µg/m^3 (expected annual arithmetic mean, averaged over three years). After scientific review on PM, EPA issued the final rule in December 2006 revising the $PM_{2.5}$ standards, at the same time revoking the PM_{10} annual standard while retaining the 24 hour standard at 150 µg/m^3.

Starting in 2005, the R&P Partisol 2025 samplers were used for manual PM_{10} collection by removing the $PM_{2.5}$ size selective inlet. The filters are submitted to a contract laboratory for mass analysis. In 2007 the R&P 2025 samplers were replaced by the Thermo 2025i samplers for PM_{10} monitoring. Figure 4.7 shows the number of monitors and the composite annual arithmetic mean for PM_{10}.

On Figure 3-5, there is a break in the graph during 2005, due to a changeover in equipment from Wedding & Associates PM_{10} Critical Flow High Volume Sampler (WED PM10 sampler) causing there to be only one quarter of data for the entire year. The small increase in average annual concentration observed in 2015 is due to elevated readings at the Buffalo, NY site. In March of 2015, the land use type changed at the Buffalo site following the sale of an adjacent land parcel, introducing a local source of PM_{10}. This caused the values to no longer be regionally representative.

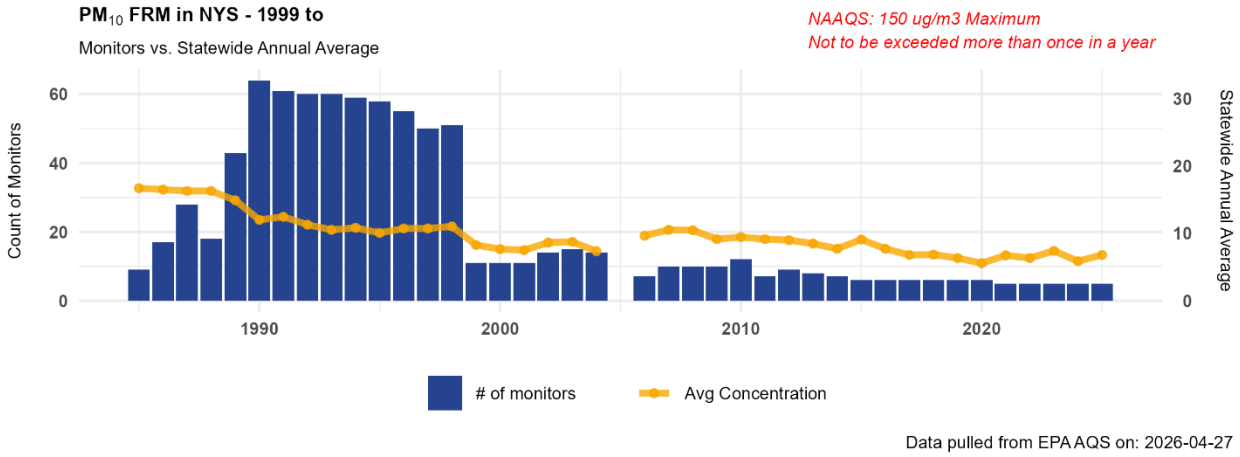


Figure 3-9 PM_{10} Monitors and Concentration Trends

Currently, there are five PM_{10} sites operating on a one in six days schedule, as shown in Figure 3-6.

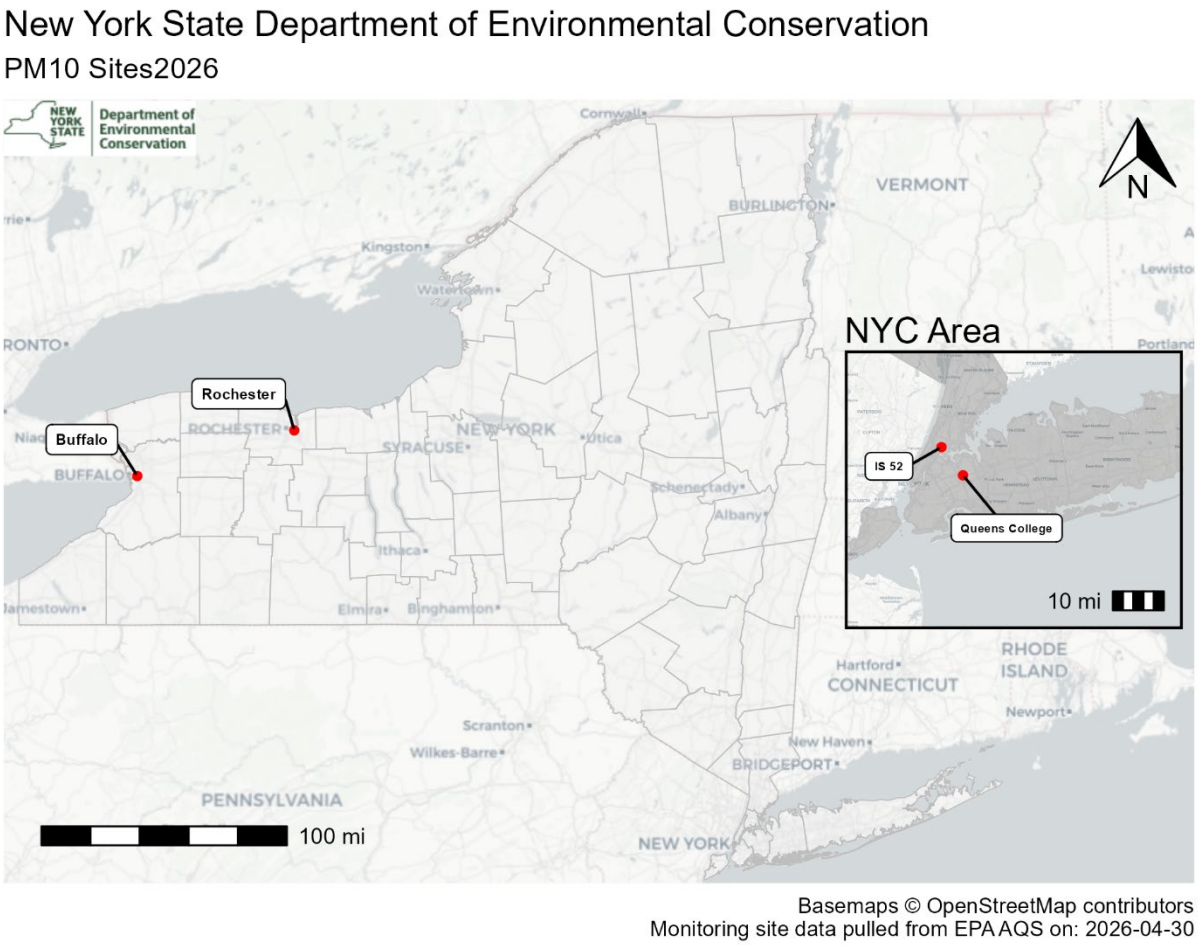


Figure 3-10 Map of PM_{10} Monitoring Sites

$PM_{2.5}$

In July 1997, the EPA Administrator promulgated significant revisions to the PM NAAQS, after taking into account scientific information and assessments. Two new $PM_{2.5}$ standards were set: an annual standard of 15 $\mu g/m^3$, based on the 3-year average of annual arithmetic mean $PM_{2.5}$ concentrations from single or multiple community-oriented monitors, and a 24-hour standard of 65 $\mu g/m^3$, based on the 3-year average of the 98th percentile of 24-hour $PM_{2.5}$ concentrations at each population-oriented monitor within an area. To continue to address coarse-fraction particles, the annual PM_{10} standard was retained, and the form, but not the level, of the 24 hour PM_{10} standard was revised to be based on the 99th percentile of 24-hour PM_{10} concentrations at each monitor in an area. The secondary standards were revised by making them identical in all respects to the $PM_{2.5}$ and PM_{10} primary standards.

EPA lowered the NAAQS for PM in December of 2006 to provide increased protection of public health and welfare. EPA revised the level of the 24-hour $PM_{2.5}$ standard from 65 to 35 micrograms per cubic meter ($\mu g/m^3$) and retained the level of the annual $PM_{2.5}$ standard at 15 $\mu g/m^3$. Regarding PM_{10}, the 24-hour standard was retained, but the annual PM_{10} standard was revoked. On Dec. 14, 2012, EPA further strengthened the nation's air quality standards for fine particle pollution by adjusting the primary annual $PM_{2.5}$ standard from 15 to 12 micrograms per cubic meter ($\mu g/m^3$) and

retaining the 24-hour fine particle standard of 35 µg/m^3. The new standards became effective on March 18, 2013.

The 2012 PM NAAQS added a network monitoring requirement for $PM_{2.5:}$ a $PM_{2.5}$ monitor must be installed in CBSAs with populations over 1 million near a busy road segment. Monitors for CBSAs with populations over 2.5 million were required by January 1, 2015, while the rest were required by January 1, 2017. The data from these sites have been used to evaluate the impact of emissions from busy roadways in urban areas. The NYSDEC installed near-road $PM_{2.5}$ monitors in Buffalo and Rochester in 2014 at the Queens site in 2017. In 2024, the NAAQS was lowered to 9 µg/m^3, and attainment designations are still ongoing due to an active wildfire season in 2023.

The NYSDEC $PM_{2.5}$ monitoring network deploys a combination of filter-based FRM samplers, continuous mass monitors, filter-based speciation samplers and continuous speciation samplers. The data from the FRM samplers are used to determine if the State's air quality meets the NAAQS. The continuous mass sampler data are used for the reporting of near real-time air quality data for health-related warnings and forecasts. The speciation filter sampler data are used to determine the chemical constituents that make up $PM_{2.5}$. The continuous speciation data are used to examine the short-term fluctuations in the concentrations of individual species or components that make up $PM_{2.5}$.

$PM_{2.5}$ FRM Monitoring Instrumentation

The filter-based FRM samplers used in New York are the Model 2025i sequential samplers made by the Thermo Environmental™ Company (Franklin, MA). The sampler has been designated by EPA as a reference method instrument for $PM_{2.5}$ particle collection. The designation is: RFPS-0498-118.

Figure 3-7 below shows the number of manual $PM_{2.5}$ monitoring sites and the composite annual arithmetic means in New York State since the network was implemented in 1999.

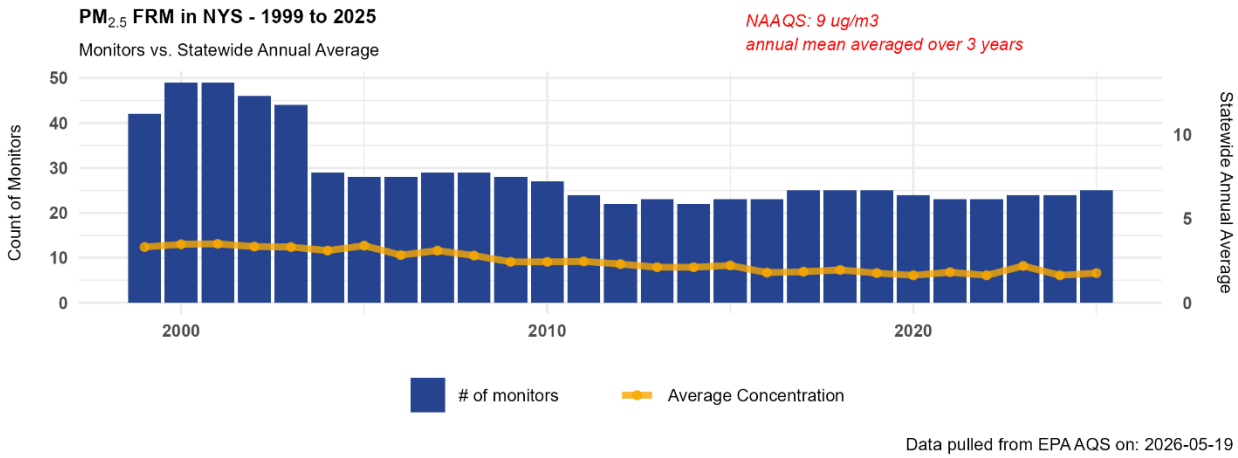


Figure 3-11 $PM_{2.5}$ FRM Monitors and Concentration Trends

Currently, there are 21 FRM monitors in operation statewide, as shown in Figure 3-8.

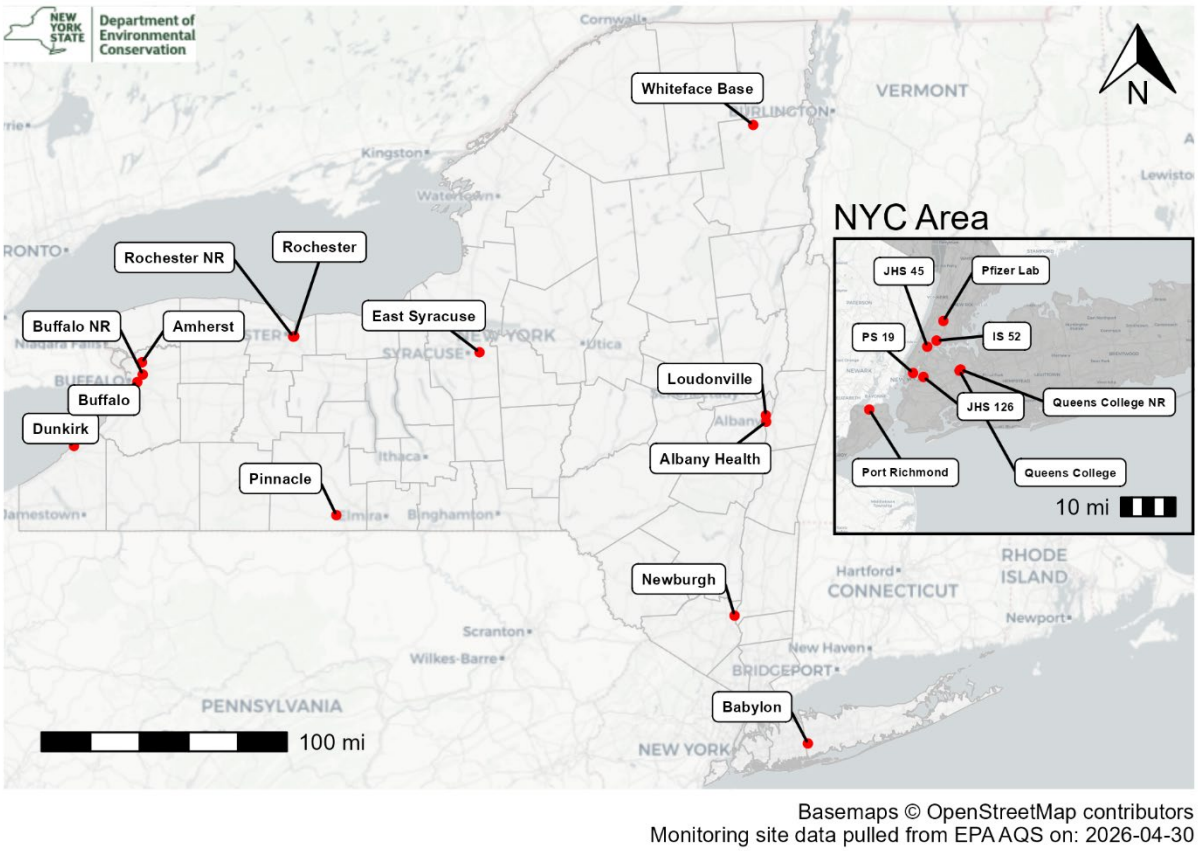


Figure 3-12 Map of Manual $PM_{2.5}$ (FRM) Monitoring Network

Continuous PM Monitoring

Continuous PM mass monitoring is performed with a network of Thermo TEOM 1405 and Teledyne T640 instruments. There are nineteen Teledyne API T640 FEM instruments that are also simultaneously measuring $PM_{2.5}$ at sites across the state. The TEOM data are compared to the filter-based FRM annually, and the comparison allows the analysts to create non-linear correction factors that modify the TEOM data to more closely resemble FRM data. This is necessary because FRM data are not available for near real-time public reporting purposes. NYSDEC now submits TEOM data from each site in its original, unadjusted format, as well as the adjusted data that more closely matches the FRM. The T640 FEM instrument data is not adjusted in any way, due to federal regulations relating to the transformation of data for use with compliance and enforcement.

Figure 3-9 below shows the number of continuous non-FRM $PM_{2.5}$ monitoring sites and the composite annual arithmetic means in New York State since the network was implemented in 1996.

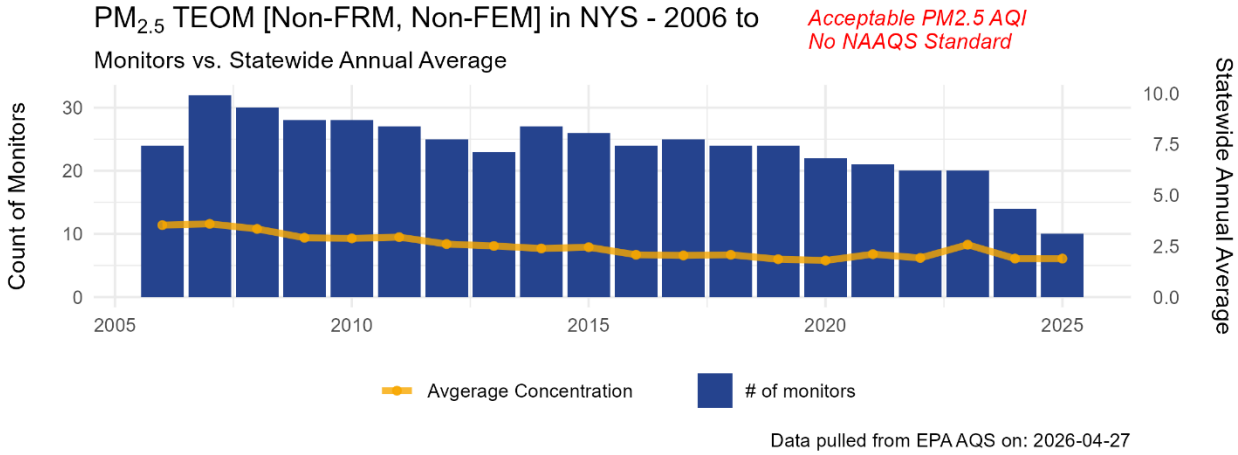


Figure 3-13 TEOM $PM_{2.5}$ Monitors and Concentration Trends

There are 9 TEOM continuous $PM_{2.5}$ monitoring sites as shown in Figure 3-10.

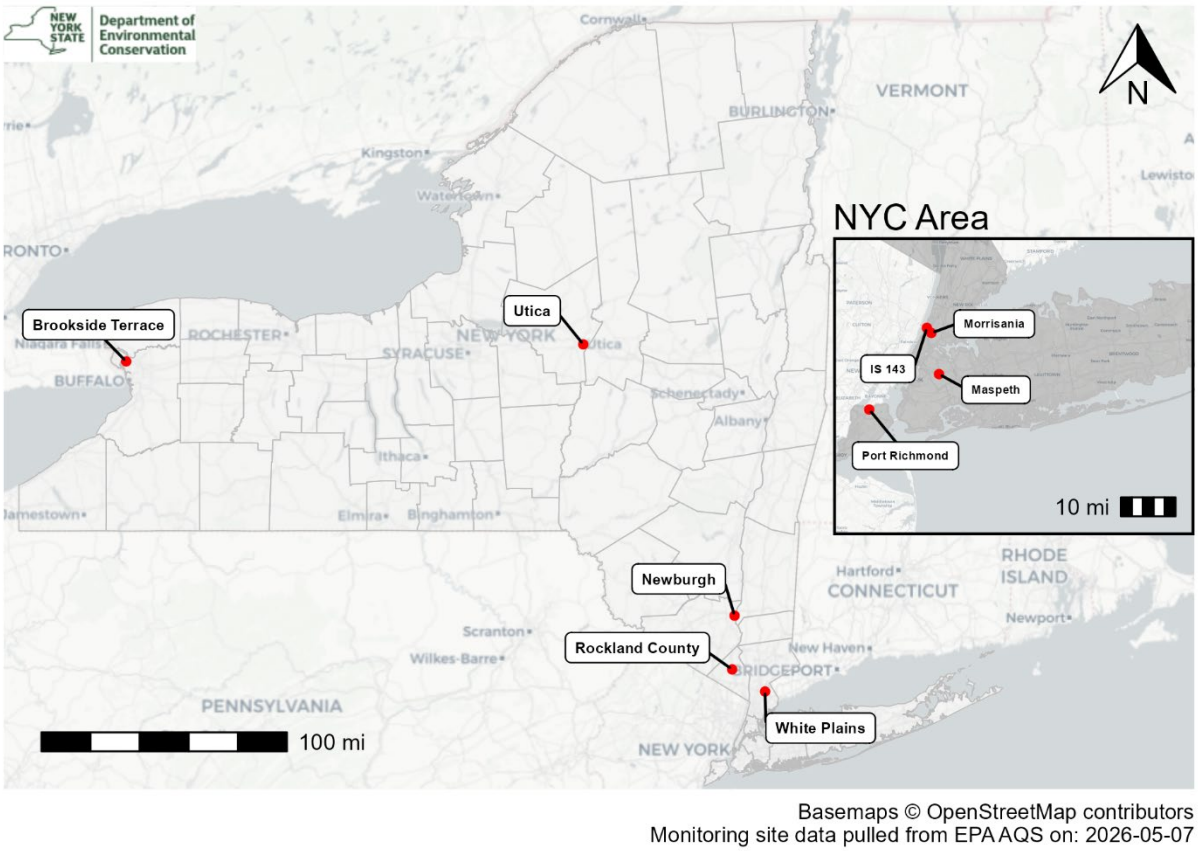


Figure 3-14 Map of Continuous Non-FEM $PM_{2.5}$ Monitoring Network

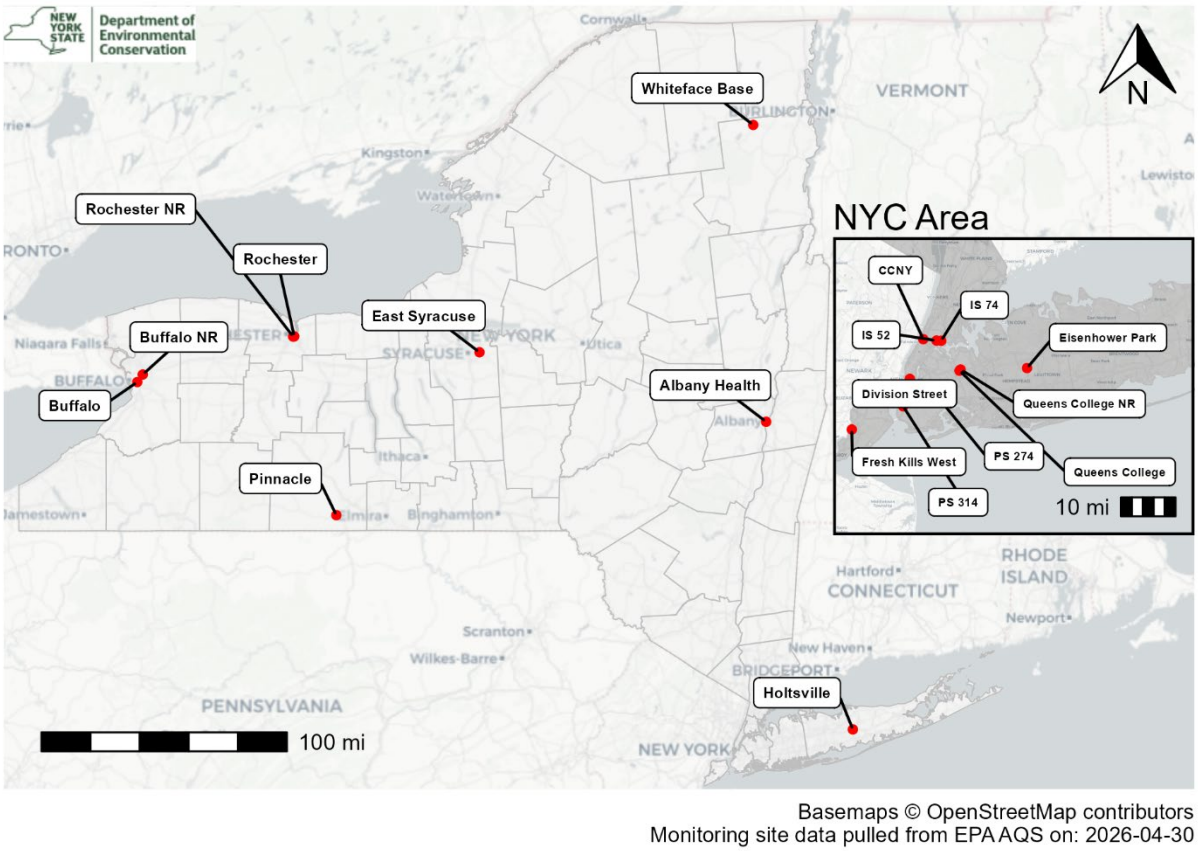


Figure 3-15 Map of Continuous FEM $PM_{2.5}$ Monitoring Network

Table 5 Annual $PM_{2.5}$ NAAQS Comparability

AQS ID	Public Site Name	Comparable to the Annual PM2.5 NAAQS?
36-001-0005	Albany Health	Yes
36-001-0012	Loudonville	Yes
36-005-0080	Morrisania	Yes
36-005-0110	IS 52	Yes
36-005-0112	IS 74	Yes
36-005-0133	Pfizer Lab	Yes
36-013-0006	Dunkirk	Yes
36-029-0002	Amherst	Yes
36-029-0005	Buffalo	Yes
36-029-0023	Buffalo NR	Yes
36-029-1014	Tonawanda II BRTS	Yes

AQS ID	Public Site Name	Comparable to the Annual PM2.5 NAAQS?
36-031-0003	Whiteface Base	Yes
36-047-0052	PS 314	Yes
36-047-0118	PS 274	Yes
36-047-0122	JHS 126	Yes
36-055-0015	Rochester NR	Yes
36-055-1007	Rochester	Yes
36-059-0005	Eisenhower Park	Yes
36-061-0079	JHS 45	Yes
36-061-0115	IS 143	Yes
36-061-0128	PS 19	Yes
36-061-0134	Division Street	Yes
36-061-0135	CCNY	Yes
36-065-2001	Utica	Yes
36-067-1015	East Syracuse	Yes
36-071-0002	Newburgh	Yes
36-081-0120	Maspeth	Yes
36-081-0124	Queens College	Yes
36-081-0125	Queens College NR	Yes
36-085-0055	Port Richmond	Yes
36-085-0111	Fresh Kills West	Yes
36-087-0005	Rockland County	Yes
36-101-0003	Pinnacle	Yes
36-103-0002	Babylon	Yes
36-103-0009	Holtsville-Suffolk	Yes
36-119-2004	White Plains	Yes

Speciation

In New York State, sites operating with the Chemical Speciation Network (CSN) sampling protocol use MetOne SuperSass and URG 3000N instruments. The samplers collect 3 and 1 filter samples respectively every third day or sixth day for a period of 24 hours. All these sites also include collocated FRM and continuous mass monitoring instruments. The samples are then sent to an EPA contract laboratory for chemical analysis. There are over fifty species consisting of ions, metals and carbon species quantified by the analyses.

To address inconsistencies in carbon sampling and analysis procedures used in urban CSN/SLAMS and rural IMPROVE programs, EPA determined that the URG® sampler would be

used at all CSN sites. The conversion was completed in 2008 for all of the NY sites. Figure 3-12 shows the seven CSN sites currently in operation.

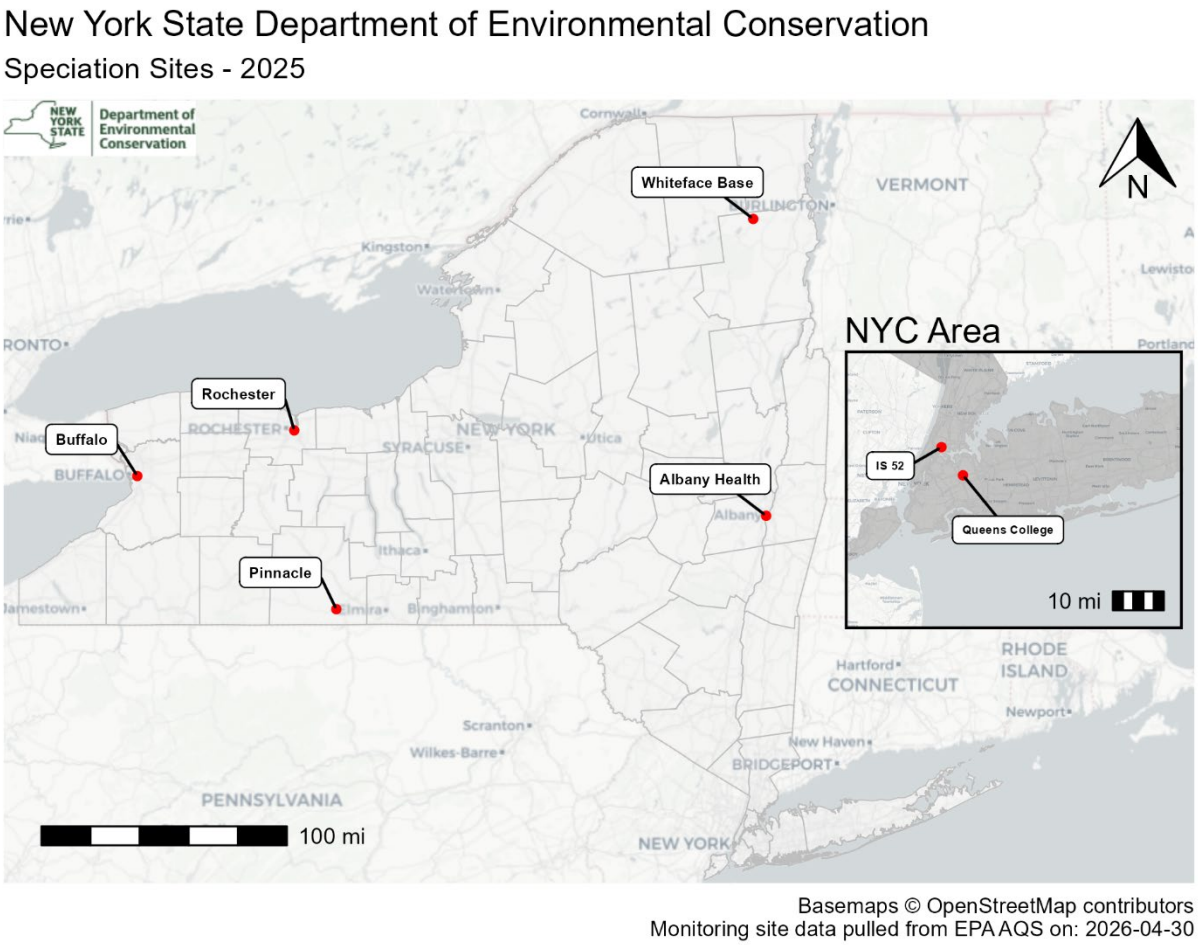


Figure 3-16 Map of Speciation Sampling Sites

Continuous Speciation

The NYSDEC recognizes the value of high-resolution measurements (hourly or higher) of $PM_{2.5}$ species. This data is useful for the examination of pollutant trends (and temporal patterns) and is critically important for areas facing non-attainment for the $PM_{2.5}$ NAAQS. Identifying seasonality of species is necessary to develop control strategies. Long-term monitoring is vital to this effort because, in addition to changes in source emissions, changes in meteorology also affect PM pollution.

The NYSDEC Continuous Speciation Program currently includes monitoring at urban and rural locations. Sulfate, organic carbon, elemental carbon and black carbon species data are collected at hourly or higher frequencies, allowing both the regional and inter-urban variability of these species to be investigated. NYSDEC uses instruments to examine the species of $PM_{2.5}$ on a higher frequency than what is available from the filter-based speciation sampling network. This continuous speciation data is useful in examining source strengths and the relationship between pollutant concentrations and meteorology. The operation of continuous speciation equipment is also less expensive than long-term filter species measurements due to the high costs associated with filter lab analysis. Operation of continuous speciation in conjunction with 24 hour CSN sampling is beneficial in accounting for biases in measurements when a change to the CSN method occurs, as happened in 2007 when the IMPROVE method was implemented.

Ultrafine Particulate Monitoring

Ultrafine particles (UFPs) are aerosols with an aerodynamic diameter of 0.1 µm (100 nm) or less. There is a growing concern in the public health community about the detriments of UFPs to human health. Despite their modest mass and size, they dominate in terms of the number of particles in the ambient air. A concern about UFPs is their potential ability to reach deeply into the lungs. Moreover, UFPs have a high surface area and potential to absorb a substantial amount of toxic organic compounds.

Monitoring for UFPs in New York State has expanded since 2009. There are now monitors at urban sites in Albany and Queens, at near-road locations in Buffalo, Rochester, and Queens, and two located in rural areas at Whiteface Mountain and at Pinnacle State Park in the Southern Tier. Data suggest that the UFPs are regional in nature, though some size fractions are impacted by local mobile sources. These sites utilize an API Model 651 which counts particles larger than 7 nanometers. Data from these ultrafine monitors are being uploaded to the EPA AQS database for use by researchers.

Sulfur Dioxide

Sulfur dioxide (SO_2), a colorless, reactive gas that is produced during the burning of sulfur-containing fuels such as coal and oil, during metal smelting, and by other industrial processes. It belongs to a family of gases called sulfur oxides (SO_x). Major sources include power plants, industrial boilers, petroleum refineries, smelters, and iron and steel mills. Generally, the highest concentrations of SO_2 are found near large fuel combustion sources.

High concentrations of SO_2 can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO_2 levels while at moderate exertion may result in reduced lung function that may be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer-term exposures to high concentrations of SO_2, in conjunction with high levels of PM, include respiratory illness, alterations in the lungs' defenses, and aggravation of an existing cardiovascular disease.

Additionally, there are a variety of environmental concerns associated with high concentrations of SO_2. Because SO_2, along with NO_x, is a major precursor to acidic deposition (i.e. acid rain), it contributes to the acidification of soils, lakes, and streams and the associated adverse impacts on ecosystems. Sulfur dioxide exposure to vegetation can increase foliar injury, decrease plant growth and yield, and decrease the number and variety of plant species in a given community. Sulfur dioxide also is a major precursor to $PM_{2.5}$ (aerosols), which is a main pollutant that impairs visibility and is of significant concern to human health. Finally, SO_2 can accelerate the corrosion of natural and man-made materials (e.g., concrete and limestone) that are used in buildings and monuments, as well as paper, iron-containing metals, zinc, and other protective coatings.

Figure 3-13 shows the number of SO_2 monitors and the composite annual means in New York State over the years.

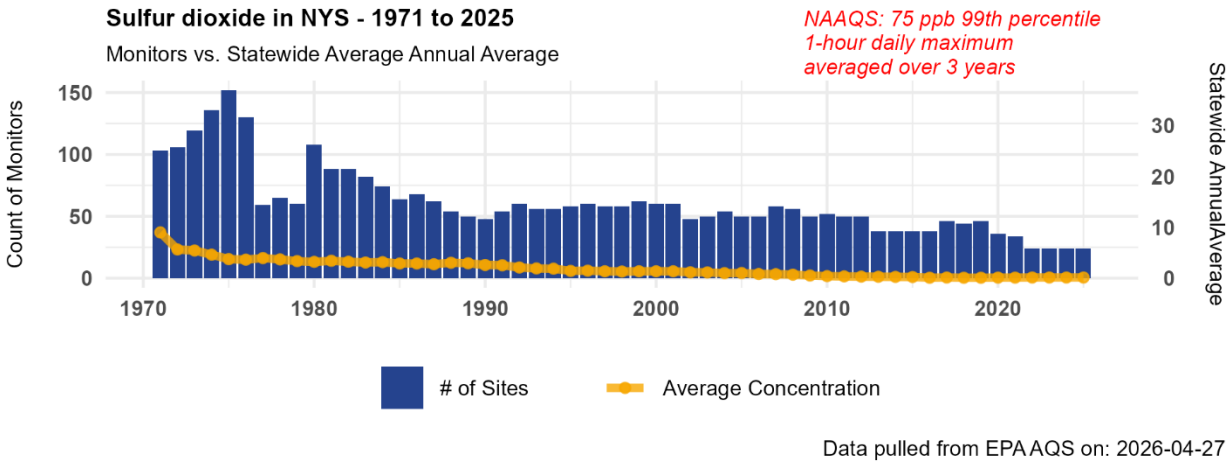


Figure 3-17 Sulfur Dioxide Monitors and Concentration Trends

Effective August 23, 2010, the EPA established requirements for an SO_2 monitoring network, and replaced the existing 24-hour and annual standards with a new short-term standard based on the 3-year average of the 99th percentile of the yearly distribution of 1-hour daily maximum SO_2 concentrations at 75 ppb. On September 21, 2015, the EPA finalized requirements for air agencies to monitor or model ambient SO_2 levels in areas with large sources of SO_2 emissions to help implement the 1-hour SO_2 NAAQS. This rule is known as the Data Requirements Rule (DRR) and states that, at a minimum, air agencies must characterize air quality around sources that emit 2,000 tons per year (tpy) or more of SO_2. The DRR requires sources to accept enforceable emission limits that reduce their emissions to a level below 2000 tpy, to determine through dispersion modeling that there are no ambient air concentrations of SO_2 above the NAAQS, or to monitor air quality to ensure that there are no exceedances of the primary SO_2 NAAQS.

There were two sources in New York State that have elected to characterize air quality in areas near their facilities by monitoring in order to satisfy the DRR. The facilities established and operated SO_2 monitors at locations that are acceptable to the NYSDEC and EPA. The primary objective of this monitoring is to determine the 1-hour concentration of SO_2 at the location or locations where the maximum impact from the source is expected to occur. The NYSDEC utilized dispersion modeling to determine how many monitors were necessary for each source, as well as to determine the acceptable locations where these monitors could be established. The Cayuga East and Cayuga West sites were closed at the end of 2019, when the facility in question closed, and thus do not appear on the map in Figure 3-15.

There are 12 SO_2 monitors in operation currently, as shown in Figure 3-15. 43i TLE and 48iQ-TL instruments using the pulsed fluorescence method are deployed in the network.

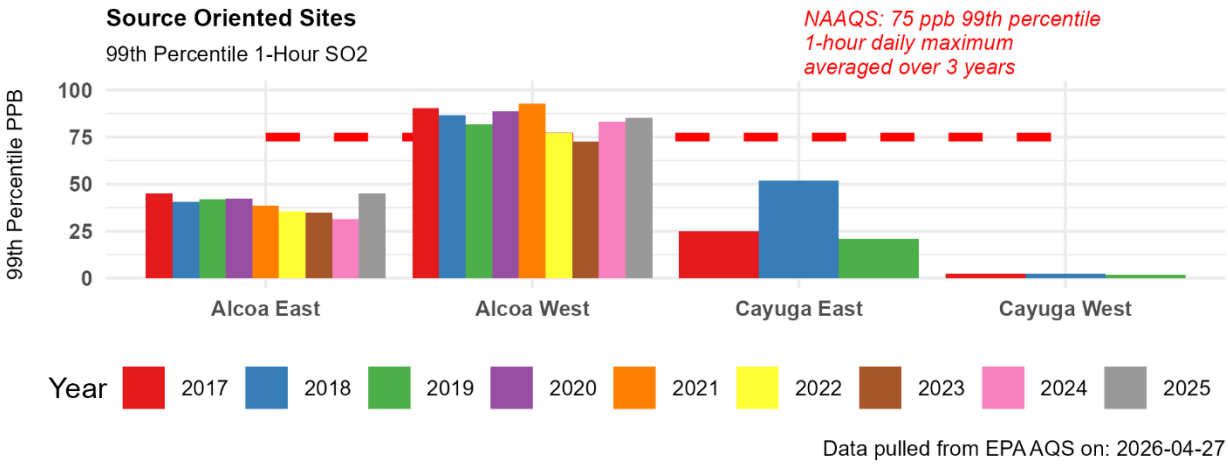


Figure 3-18 Source Oriented Sulfur Dioxide Monitors and Concentration Trends

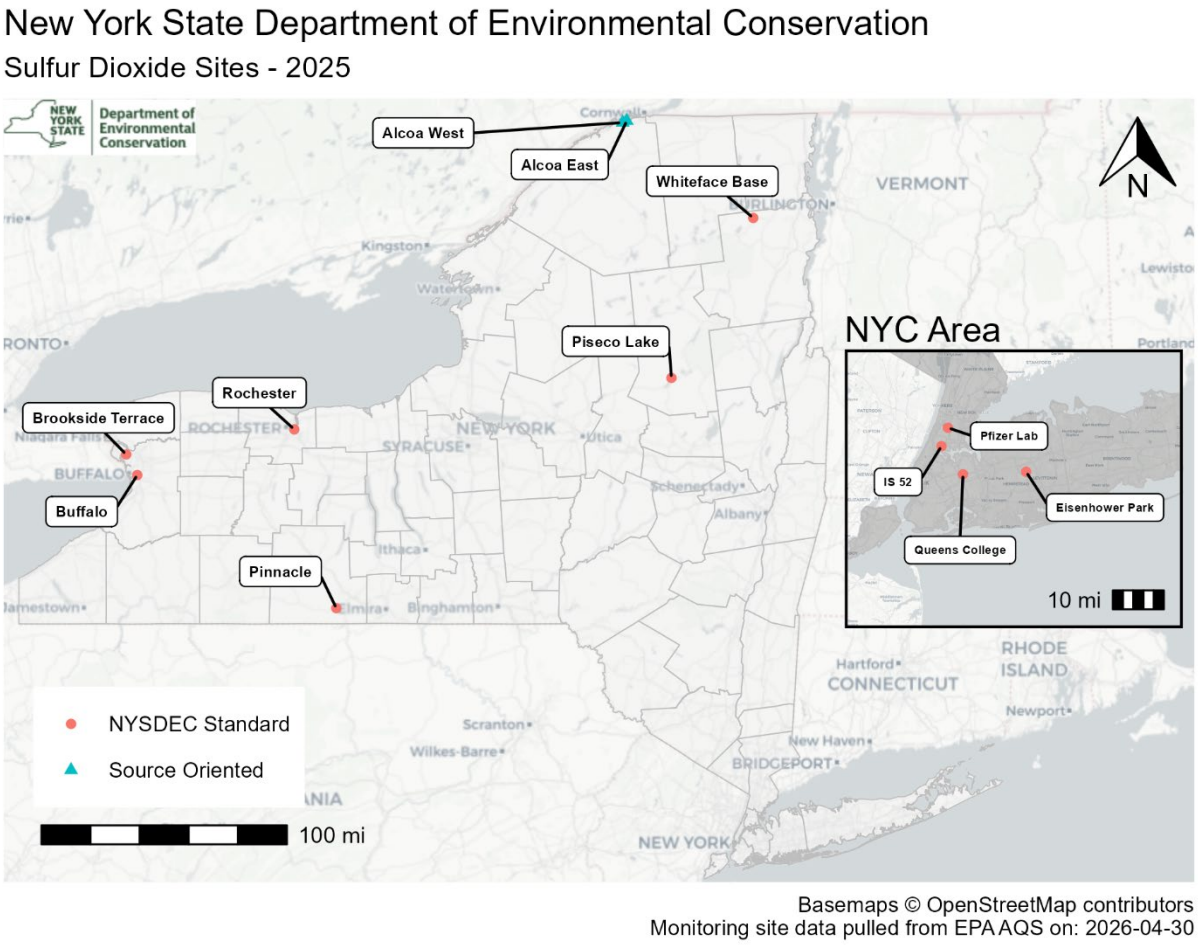


Figure 3-19 Map of Sulfur Dioxide Monitoring Sites

Ozone

Ozone (O_3), a molecule made up of three oxygen atoms, is a very reactive gas, and is toxic and irritating even at low concentrations. It occurs naturally in small amounts in the earth's upper atmosphere, and in the air of the lower atmosphere after a lightning storm. In the stratosphere, between 10km and 50km above the earth's surface, it forms the Ozone Layer. This is an important protective layer that filters out most of the harmful ultra-violet radiation from the sun. When O_3 is present at ground level and in the troposphere (10-18 km above earth's surface), it

is considered a pollutant and a greenhouse gas. Ozone is a primary component of smog. Short-term (1- to 3-hour) and prolonged (6- to 8-hour) exposures to ambient O_3 concentrations have been linked to a number of health effects.

Ground-level O_3 remains a pervasive pollution problem in the United States. Ozone is formed in the atmosphere through the reaction of volatile organic compounds (VOCs) with NOx in the presence of heat and sunlight, which are most abundant in the summer. VOCs are emitted from a variety of sources, including motor vehicles, refineries, consumer products, and natural sources. Changing weather patterns contribute to yearly differences in O_3 concentrations. Ozone, and the precursor pollutants that react to form O_3, can also be transported into an area from sources located hundreds of miles upwind.

Exposures to O_3 result in lung inflammation, aggravate preexisting respiratory diseases such as asthma, and may make people more susceptible to respiratory infection. Children active outdoors during the summer when O_3 levels are at their highest are most at risk of experiencing such effects. Other at-risk groups include adults who are active outdoors and individuals with preexisting respiratory disorders.

EPA initially established primary and secondary NAAQS for photochemical oxidants on April 30, 1971. Both primary and secondary standards were set at an hourly average total photochemical oxidants, not to be exceeded more than one hour per year. Revisions to the NAAQS were made in 1979, and again in 1997. In July 1997 EPA revised the O_3 standards by replacing the existing primary 1 hour average standard with an 8 hour average set at a level of 0.08 ppm. The form of the primary standard was changed to the annual fourth-highest daily maximum 8 hour average concentration, averaged over three years. The 8 hour ozone standard (primary and secondary) was lowered to 0.075 ppm on May 27, 2008, at which time the 1 hour standard was revoked.

In October 2015, the EPA updated the NAAQS for ground-level O_3, based on extensive scientific evidence about ozone's effects. Under the October 2015 rule, the primary standard was lowered to 0.070 ppm, which took effect January 1st, 2016. In addition to lowering the 8 hour O_3 standard, the 2015 O_3 rule expanded the monitoring season of 32 states including New York. The New York O_3 monitoring season now runs from March 1 through the end of October. The number of O_3 monitors and concentration trends for the 8 hour standard in New York State for the past three decades is shown in Figure 3-16.

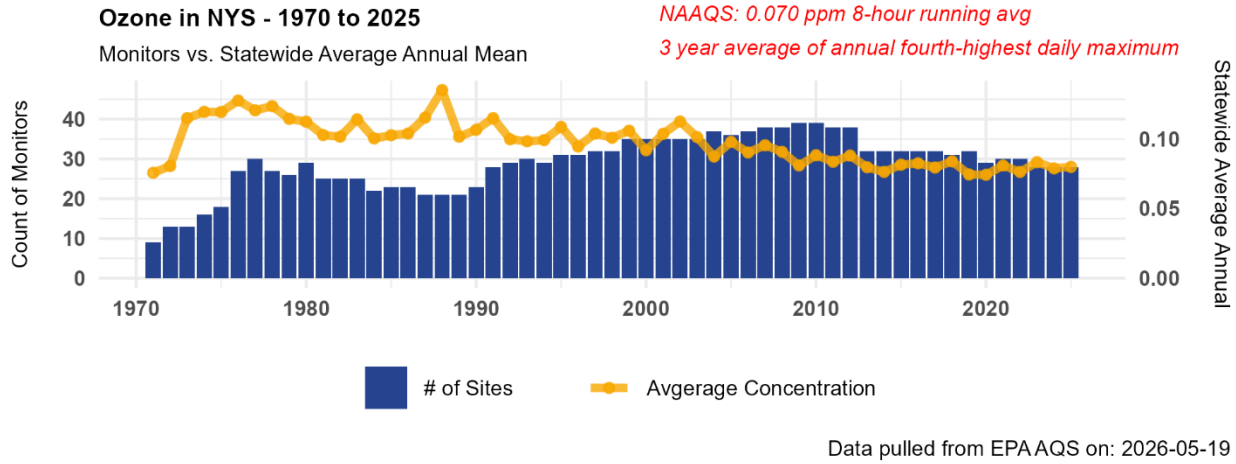


Figure 3-20 Ozone Monitors and 8 hour Concentration Trends

At present, the NYSDEC operates API T400 and N400 ozone monitors statewide, which use the UV photometric method for detection. The site locations are depicted in Figure 3-17 below.

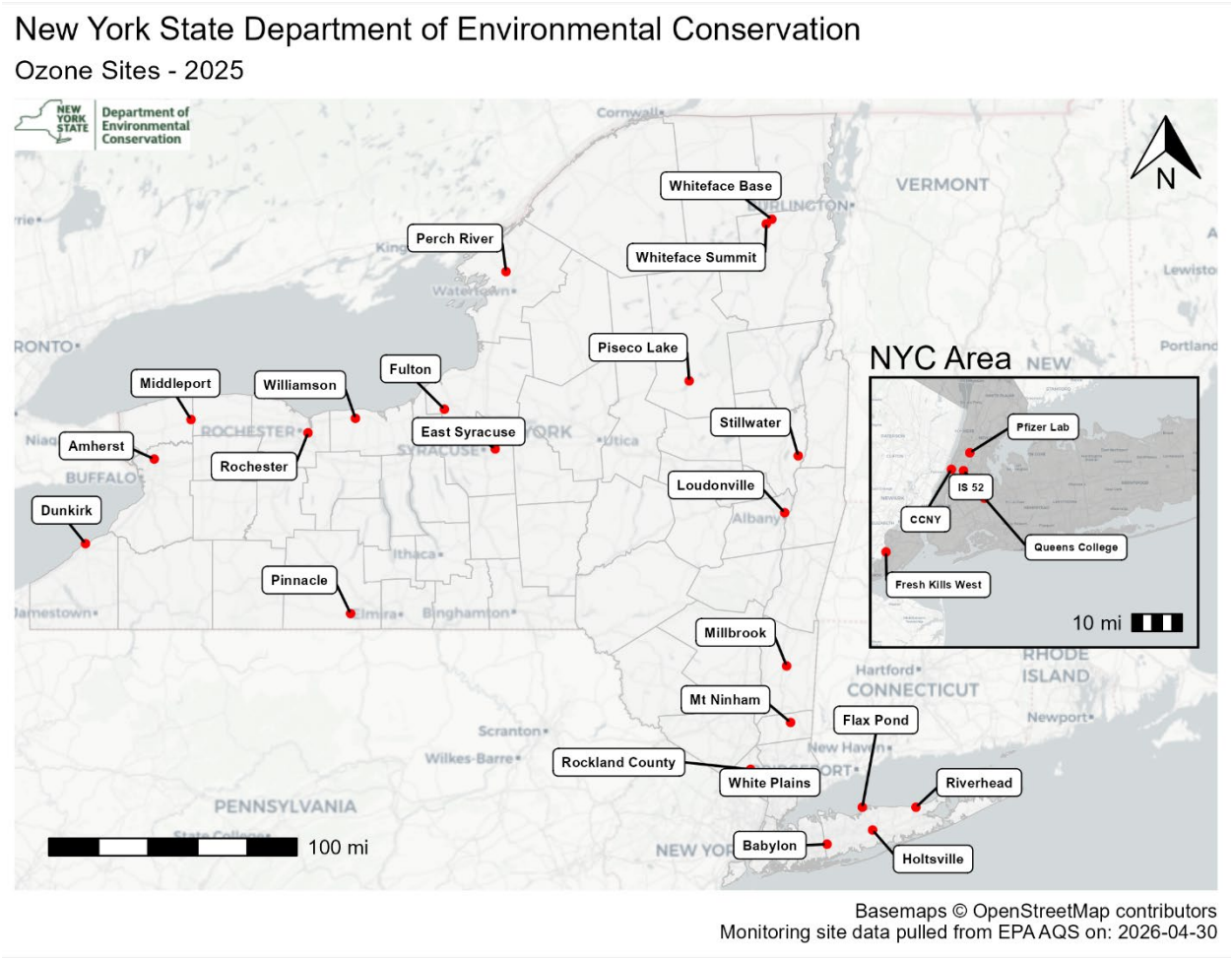


Figure 3-21 Map of Ozone Monitoring Sites

Air Toxics Program

In general, EPA uses ambient air toxics monitoring to support the efforts to reduce human exposure to and health risks from air toxics. The monitoring data provided by the ambient air toxics monitoring program is intended to support four major objectives:

- Establish trends and evaluate the effectiveness of air toxics emissions reduction strategies.
- Characterize ambient concentrations (and deposition) in local areas. Air toxics originate from local sources and can concentrate in relatively small geographical areas, producing the greatest risks to human health.
- Provide data to support, evaluate, and improve air quality models. Air quality models are used to develop emission control strategies, perform exposure assessments, and assess program effectiveness.
- Provide data to support scientific studies to better understand the relationship between ambient air toxics concentrations, human exposure, and health effects from these exposures.

EPA's national air toxics monitoring program is comprised of four different monitoring efforts:

- National Air Toxics Trends Stations (NATTS)
- EPA funded local-scale projects to assess conditions at the local level
- Existing State and local program monitoring
- Persistent bio-accumulative toxics monitoring

The aim for the NATTS network is to supply long-term monitoring data for certain priority air toxics across representative areas of the country to show overall trends for these pollutants. Currently, there are 23 NATTS established in 22 cities. The two New York NATTS sites are in the Bronx and Rochester.

National Air Toxics Trends Stations (NATTS)

EPA's Urban Air Toxics Program identified 33 high-priority urban air toxics. From these 33 air toxics, EPA developed a list of 19 "core" air toxics representing the pollutants for which EPA will eventually develop trends information. However, because of limitations in available methodologies, EPA identified 6 of these 19 pollutants that at a minimum, in starting the network, each of the NATTS should monitor. These six pollutants are considered national air toxics "drivers" (i.e., pollutants of concern in all areas of the country).

Table 6 NATTS Pollutants of Concern

Compound	Monitoring Type
1,3-butadiene	Required
acrolein	Required
arsenic	Required
formaldehyde	Required
benzene	Required
Acrolein	Required
ETO	Required
trichloroethylene	Desired - Optional
tetrachloroethylene	Desired - Optional
beryllium	Desired - Optional

Compound	Monitoring Type
nickel	Desired - Optional
cadmium	Desired - Optional
acetaldehyde	Desired - Optional
1,2-dichloropropene	Desired - Optional
carbon tetrachloride	Desired - Optional
lead	Desired - Optional
chloroform	Desired - Optional
manganese	Desired - Optional
methylene chloride	Desired - Optional
vinyl chloride	Desired - Optional

For the two NATTS sites, New York performs analysis of 42 VOCs (Table 7), and 12 carbonyls (Table 11). More details on the sampling and analysis are provided in the NY Toxics Monitoring and the Photochemical Assessment Monitoring Stations sections. In addition, low volume PM_{10} Teflon filters are collected for trace metals analysis using ICP-MS. The targeted metals include arsenic, beryllium, cadmium, lead, manganese, nickel, antimony, cobalt, and selenium, with the last three being potential future Hazardous Air Pollutants (HAPs).

Polycyclic Aromatic Hydrocarbons (PAHs) sampling at the Rochester and IS 52 sites began in July 2008. The collection media consists of one 110 mm diameter glass microfiber filter and a tubular glass cartridge containing a combination of Polyurethane Foam (PUF) and XAD-2® resin. The exposed samples are shipped to an EPA contract laboratory (ERG©) for analysis.

NY Toxics Monitoring Network

The NY ambient air toxics monitoring program was first established in 1985 as part of the Governor's Air Monitoring Modernization Capital Budget Program. New York State has been operating a toxics monitoring network, funded entirely by State monies, since 1990. Currently, there are 12 sites statewide collecting 24 hour canister samples for VOC analysis in a 1-in-6 day interval. See section on NY Toxics Monitoring Network.

The goal is to monitor air quality related to toxics in the State's urban, industrial, residential, and rural areas. Implementation of this program started the development of a long-term toxics air quality database for New York State. The database will be used to define, attain, and preserve good air quality in New York State. The data defines actual air quality impacts of the VOCs. The data is used in the design and management of New York's air quality, including risk assessment, modeling, planning and trend analysis. Volatile organic compounds are collected in fused silica lined stainless steel canisters. The canister is filled by a flow calibrated sampling device that pumps ambient air into the canister over a 24 hour period. Samples are collected at a one in six days' frequency and shipped back to the NYSDEC laboratory facility for analysis.

The analysis methodology is a modified version of EPA method TO-15. An aliquot of air sample is taken from the canister at a controlled flow and temperature onto an Entech® Model 7200A preconcentrator. The preconcentration process involves a series of steps. The first trap consists of glass beads/Tenax® held at -110℃, which is then heated to room temperature to remove water/moisture in the sample. The next trap in line consists of Tenax® held at - 30℃. The contaminants of interest are then desorbed at 150℃ and collected on the cryofocuser held at -150℃. The sample is then rapidly heated for injection into a GCMS. This method of analysis allows for positive identification by retention time and molecular mass.

Table 7 Target List of Volatile Organic Compounds

Chemical	Alternative Names and Notes	CAS Number	AQS ID
Acrolein	2-Propenal; Acrylic aldehyde; Acrylaldehyde	107-02-8	43505
Benzene	Benzol	71-43-2	45201
Benzyl chloride	Chloromethylbenzene; Chlorotoluene	100-44-7	45809
1,3-Butadiene	Butadiene	106-99-0	43218
Carbon tetrachloride	Tetrachloromethane	56-23-5	43804
Chlorobenzene	Monochlorobenzene; Benzene chloride	108-90-7	45801
Chloroform	Trichloromethane	67-66-3	43803
1,4-Dichlorobenzene(p)	p-Dichlorobenzene	106-46-7	45807
1,3-Dichloropropene	Includes cis and trans isomers	542-75-6	43841
Ethyl Chloride	Chloroethane	75-00-3	43812
Ethylbenzene	Ethylbenzol; Phenylethane	100-41-4	45203
Ethylene dibromide	1,2-Dibromoethane	106-93-4	43843
Ethylene dichloride	1,2-Dichloroethane	107-06-2	43815
Ethylidene dichloride	1,1-Dichloroethane	75-34-3	43813
Methyl bromide	Bromomethane	74-83-9	43819
Methyl chloride	Chloromethane	74-87-3	43801
Methyl chloroform	1,1,1-Trichloroethane	71-55-6	43814
Methyl tert-butyl ether	MTBE	1634-04-4	43372
Methylene chloride	Dichloromethane	75-09-2	43802
Propylene dichloride	1,2-Dichloropropane	78-87-5	43829
Styrene	Ethenylbenzene, Vinyl benzene	100-42-5	45220
1,1,2,2-Tetrachloroethane	Tetrachloroethane	79-34-5	43818
Tetrachloroethylene	Perchloroethylene; Perc	127-18-4	43817
Toluene	Methylbenzene	108-88-3	45202
1,2,4-Trichlorobenzene	1,2,4-Trichlorobenzol	120-82-1	45810
1,1,2-Trichloroethane	Vinyl Trichloride	79-00-5	43820
Trichloroethylene	Trichloroethene; TCE	79-01-6	43824
Vinyl chloride	Chloroethylene	75-01-4	43860
Vinylidene chloride	1,1-Dichloroethylene; 1,1-Dichloroethene	75-35-4	43826
o-Xylene	1,2-Dimethyl benzene	95-47-6	45204
m,p-Xylenes	Dimethyl benzenes	1330-20-7	45102
1,2 Dichlorobenzene	*ortho*-Dichlorobenzene, *o*-Dichlorobenzene	95-50-1	45805
1,3 Dichlorobenzene	*m*-Dichlorobenzene; *meta*-Dichlorobenzene	541-73-1	45806

Chemical	Alternative Names and Notes	CAS Number	AQS ID
1,2,4-Trimethylbenzene	pseudocumene	95-63-6	43348
1,3,5-Trimethylbenzene	Mesitylene	108-67-8	45207
Hexachloro-1,3-Butadiene	Hexachlorobutadiene	87-68-3	43844
Cis-1,2-Dichloroethylene	1, 2-dichloroethylene	156-59-2	43218
Dichlorodifluoromethane	Freon-12	75-71-8	43823
Trichlorofluoromethane	Freon-11	75-69-4	43811
Trichlorotrifluoroethane	Freon 113, 1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	43821
Dichlorotetrafluoroethane	Freon 114	76-14-2	43852
Bromodichloromethane	Bromodichloromethane, Bromo(dichloro)methane, Dichlorobromomethane	75-27-4	43828

Currently, there are 12 toxics monitoring sites in operation for the measurement of VOCs, and 11 sites for carbonyls statewide. These locations are shown in Figure 4-10 below.

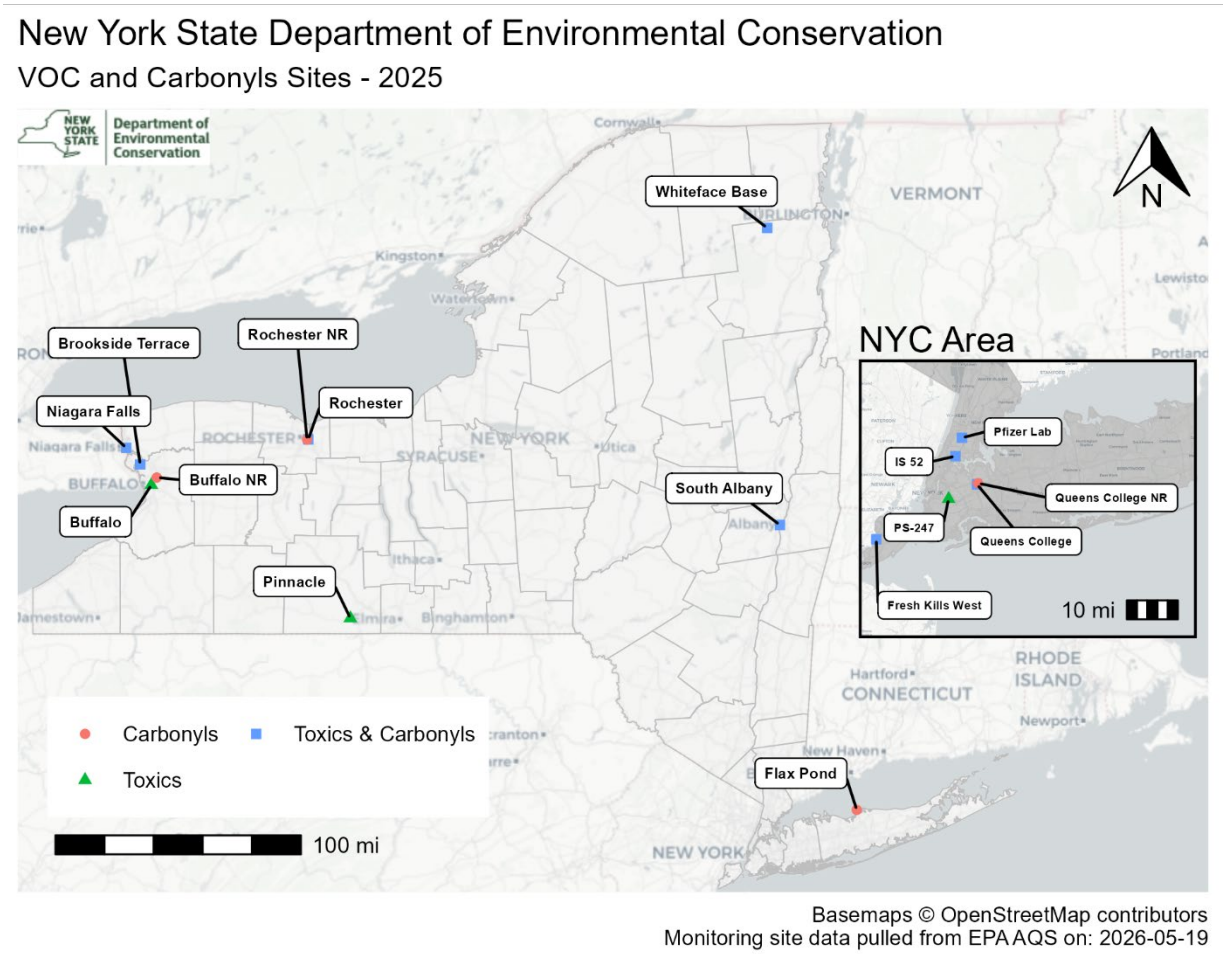


Figure 4-22 Map of Toxics Monitoring Sites

Photochemical Assessment Monitoring Stations (PAMS)

The 1993 revisions to federal regulations, 40 CFR Part 58, provide for the establishment and maintenance of a network of Photochemical Assessment Monitoring Stations (PAMS). The purpose of the PAMS program is to provide an air quality database that will assist in evaluating and modifying control strategies for attaining the O_3 NAAQS. PAMS data are also being used to better characterize the nature and extent of the O_3 problem, track VOC and NOx emission inventory reductions, assess air quality trends, and determine whether areas of New York remain in non-attainment of the O_3 NAAQS.

The parameters to be measured at a PAMS site vary with the site's O_3 non-attainment designation and whether a site is upwind or downwind of O_3 precursor source areas. These parameters are O_3, oxides of nitrogen, speciated VOCs, and specific meteorological measurements. As part of the October 2015 Ozone rule, the EPA revised the PAMS network, requiring states that operate PAMS sites to measure nitrogen dioxide, hourly speciated VOCs, eight-hour averaged carbonyls on every third day, and hourly averaged mixing height.

The two PAMS sites in New York were originally located in the Bronx at the New York Botanical Gardens and in Queens at the Queensborough Community College. The revised PAMS network required PAMS sites to be installed at NCore sites in MSAs with a population over 1 million. This requirement had placed PAMS stations in Queens and in Rochester. The NYSDEC received waivers to move the PAMS site from Queens to the existing site in the Bronx and from Rochester to a new location on the north shore of Long Island north of Stony Brook.

The Bronx location was selected instead of Queens because the Bronx better represents a source region for O_3 precursors than Queens. This is important for determining how much local sources contribute to VOCs and to nitrogen species that contribute to O_3 formation in downwind regions.

The Long Island location was selected instead of Rochester because counties in the New York Metro Area, lower Hudson Valley, Long Island, New Jersey, and Connecticut are not meeting the Ozone NAAQS. The highest O_3 design values found amongst these non-attainment areas are from locations along the southern shore of Connecticut. The area on the north shore of Long Island is well suited to determine the concentrations of O_3 precursor pollutants likely to cross the Long Island Sound and contribute to the high design value sites in Connecticut. Air masses typically travel from the Southwest to the Northeast in the summertime when O_3 levels are highest. The location selected for the new PAMS monitoring site on Long Island is at the Flax Pond Marine Laboratory in the Village of Oldfield in Setauket, NY.

The map in Figure 4-11 shows the location of these sites.

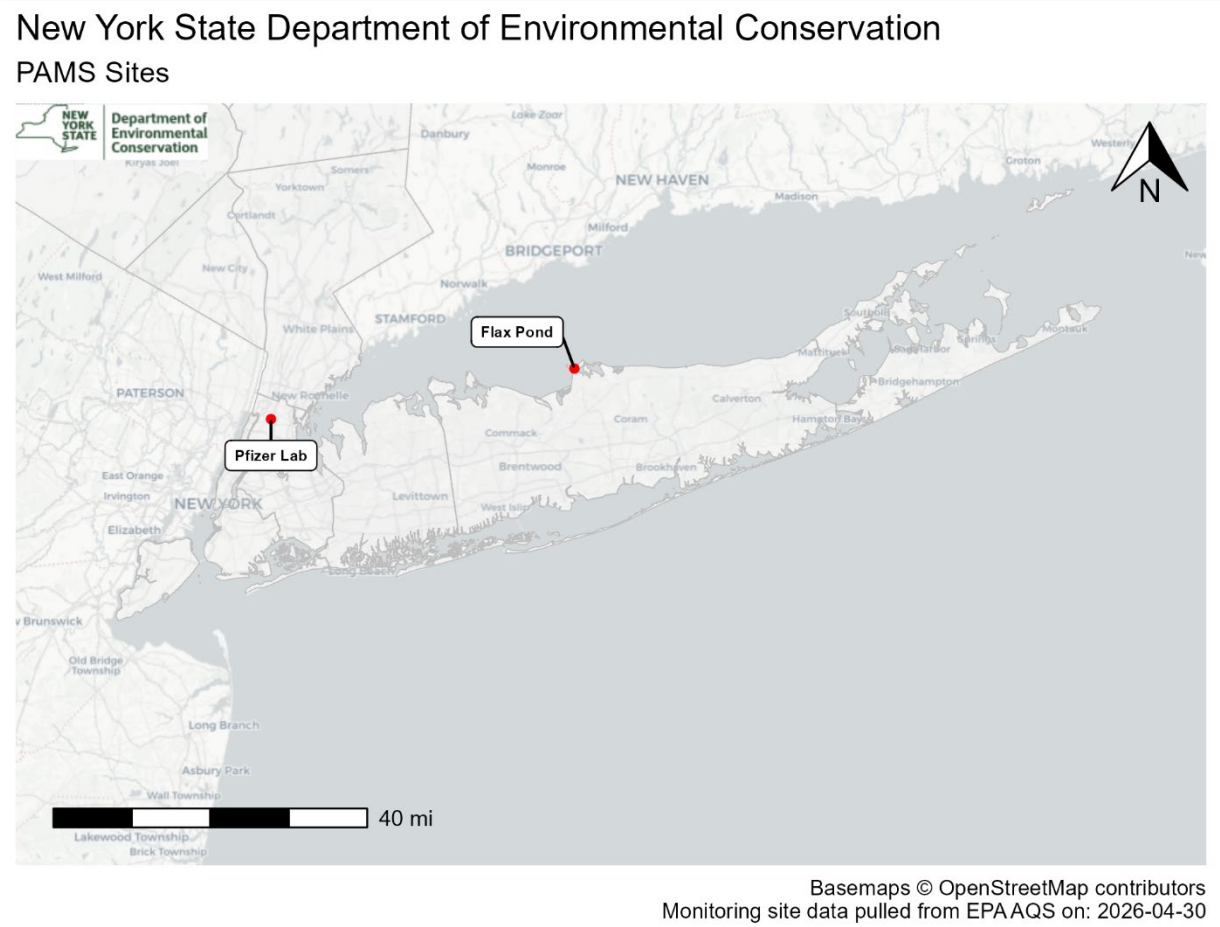


Figure 4-23 Map of PAMS Sites in NYS

Table 8 lists the chronology of monitoring at these sites.

Table 8 Information on PAMS Sites

Site Name	Parameters	Implementation Date
New York Botanical Garden	True NO_2/NO_Y	June 1994
New York Botanical Garden	CO	June 1994
New York Botanical Garden	O_3	June 1994
New York Botanical Garden	VOCs	June 1994
New York Botanical Garden	Carbonyls	June 1994
New York Botanical Garden	NMOC	September-1999
New York Botanical Garden	Solar Radiation	June 2023
New York Botanical Garden	Boundary Height	June 2023
Flax Pond	NO_2 / NO_y	June 2019
Flax Pond	Boundary Height	June 2023
Flax Pond	Solar Radiation	June 2023
Flax Pond	O_3	June 2018
Flax Pond	VOC	June 2018
Flax Pond	Carbonyls	June 2018

For gaseous parameters, Table 9 lists the sampling instruments and analysis methods.

Table 9 Instrumentation for Gaseous Pollutants

Parameter	Instrument	Analysis Method	Frequency
NO_2	API T500U	Cavity Attenuation	Continuous
NO_y	TEI 42i-Y/TAPI T200U-Y	Chemiluminescent	Continuous
O_3	TAPI N400	Ultraviolet	Continuous
CO	TEI 48iQ-TL	Infrared	Continuous

Volatile organic compounds are monitored with an on-site, real-time Gas Chromatography (GC) instrument. The on-site GC system consists of a Markes® Unity Air Server™-Thermal Desorber System integrated with an Agilent® GC.

All other parameters at the site, except for the summer intensive VOCs and carbonyls, are run on a continuous basis year-round. The PAMS VOC and carbonyl intensive sampling startup is June 1st each year and continues until August 31st after the final system audit. The other twenty-four-hour carbonyl and canister samples are continued on a 1-in-6-day schedule throughout the year. During the 2026 summer PAMS season, NYSDEC will resume the 1 in 3 day, 8 hour samples at the two PAMS sites.

The methods and sampling frequencies are provided in Table 10 below.

Table 10 VOC Methods and Sampling Frequencies

Sampling Method	Analytical Method	Frequency
Method TO-14a	GC/FID	Hourly

Carbonyls are sampled using DNPH cartridges and analyzed with HPLC according to EPA Method TO-11a. The target compound list is provided in Table 11 below.

Table 11 Target Compound List for Carbonyl Sampling

Compound	AIRS Code
acetaldehyde	43503
acetone	43551
benzaldehyde	45501
crotonaldehyde	43516
formaldehyde	43502
hexanal	43517
methacrolein	43515
m-tolualdehyde	45504
n-butyraldehyde	43510
propionaldehyde	43504
valeraldehyde	43518

The PAMS targeted compounds are listed below in Table 12:

Table 12 PAMS Target Compounds List

Compound	AIRS #
ethene	43203
acetylene	43206
ethane	43202
propene	43205
propane	43204
isobutane	43214
1-butene	43280
n-butane	43212
trans-2-butene	43216
cis-2-butene	43217
isopentane	43221
1-pentene	43224
n-pentane	43220
isoprene	43220
trans-2-pentene	43226
cis-2-pentene	43227
2,2-dimethylbutane	43227
cyclopentane	43242
2-,3-dimethylbutane	43284
2-methylpentane	43285
3-methylpentane	43230
n-hexane	43231
n-hexene *added 1997*	43245
Methylcyclopentane	43262
2,4-dimethylpentane	43247
benzene	45201

Compound		AIRS #
cyclohexane		43248
2-methylhexane		43263
2,3-dimethylpentane		43291
3-methylhexane		43249
2,2,4-trimethylpentane		43250
n-heptane		43232
Methylcyclohexane		43261
2,3,4-trimethylpentane		43252
toluene		45202
2-methylheptane		43960
3-methylheptane		43253
n-octane		43233
ethylbenzene		45203
m,p-xylene		45109
styrene		45220
o-xylene		45204
nonane		43235
isopropylbenzene		45210
n-propylbenzene		45209
m-ethyltoluen	*added 1995*	45212
p-ethyltoluene	*added 1995*	45213
1,3,5-trimethylbenzene		45207
o-ethyltoluene	*added 1995*	45211
1,2,4-trimethylbenzene		45208
n-decane		43238
1,2,3trimethylbenzene	*added 1995*	45225
1,3-diethylbenzene	*added 1995*	45218
1,4 diethylbenzene	*added 1995*	45219
n-undecane		43954
dodecane	*added 1997*	45218
tnmoc		43102
pamshc		43000
1,3-Butadiene		43218
Isoprene		43243
2,2-Dimethylbutane		43244
alpha.-Pinene		43256
beta.-Pinene		43257

Enhanced Ozone and Ozone Precursor Monitoring

New York State is located within the Ozone Transport Region and includes areas that are subject to enhanced ozone and ozone precursor monitoring requirements. Under 40 CFR Part

58, Appendix D, states with moderate or above 8-hour ozone nonattainment areas and states in the Ozone Transport Region are required to develop and implement an Enhanced Monitoring Plan describing additional ozone and ozone precursor monitoring activities that are important for understanding ozone formation and transport needs within the state.

New York's Enhanced Monitoring Plan is supported by the statewide ozone monitoring network and required Photochemical Assessment Monitoring Stations (PAMS) sites, and additional carbonyl and formaldehyde measurements conducted to better characterize ozone-precursor chemistry in the New York metropolitan area and surrounding transport region.

Supplemental Hourly Formaldehyde Monitoring

NYSDEC also operates Picarro formaldehyde analyzers at three sites: Flax Pond, and New York Botanical Garden. These instruments provide useful high-time-resolution formaldehyde measurements that supplement the TO-11A DNPH carbonyl network. The hourly Picarro measurements are particularly useful for evaluating diurnal formaldehyde patterns, short-duration concentration changes, transport events, and relationships between formaldehyde, ozone, nitrogen oxides, VOCs, and meteorology.

The Picarro data are currently used as supplemental enhanced-monitoring information and are not being presented as a replacement for the required TO-11A DNPH carbonyl measurements. NYSDEC staff are evaluating a correction or adjustment approach to improve comparability between the hourly Picarro formaldehyde measurements and the DNPH-based carbonyl measurements collected in the field. Until that evaluation is complete and documented, the TO-11A DNPH measurements remain the primary basis for meeting the PAMS carbonyl sampling requirement.

The addition of hourly formaldehyde measurements at Flax Pond, and New York Botanical Garden strengthens New York's enhanced ozone-precursor monitoring network by providing temporal detail that is not available from the 8-hour or 24-hour DNPH sampling schedules alone. These measurements improve NYSDEC's ability to evaluate ozone-formation chemistry in the New York metropolitan area, characterize precursor variability during high-ozone periods, and support future analyses of control strategy effectiveness.

NCore Sites

The National Core Monitoring Program (NCore) is an EPA initiative to redesign a portion of the National air monitoring network. The existing compliance-oriented network is set up with a parameter specific design that is targeted at the relatively high concentrations near the NAAQS. The data from this compliance-oriented network is not as accurate at the low levels needed for trends analysis and model validation. The single parameter design is also not well suited to multi-pollutant health studies, integrated model assessment, or the analysis of source attribution through comparisons of co-pollutants from sources to receptors.

The NCore program has been designed around approximately 75 sites nationwide that are sited to represent large urban areas away from significant individual sources. A smaller subset of these sites are located in rural areas. The NYSDEC operates two urban NCore sites and one rural NCore site. The sites are listed in Table 13:

Table 13 NCore Sites

AQS ID #	Site Name	General Location
36-081-0124	Queens College	Located in Kew Gardens, Queens, NY

36-055-1007	Rochester	Located Southeast of Rochester, NY
36-101-0003	Pinnacle	Located 15 mi. Southwest of Corning, NY

Pinnacle is the only rural site of the three and was selected as one of ten pilot NCore sites. The rural nature of this site allows for it to act as a background site, with few sources of local pollution. The data from this site are used to ensure that monitoring equipment and methods can measure compounds at very low levels, and information from this site is being used for biogenic research and trace level analysis.

NCore Monitoring Objectives

a.) Timely Reporting of Data to the Public
b.) Support for Development of Emission Strategies
c.) Accountability of Emission Strategy Progress
d.) Support for Long-Term Health Assessments
e.) Compliance
f.) Support to Scientific Studies
g.) Support to Ecosystem Assessments

NCore Primary Monitoring Parameters

The NCore sites are required to be sited in conjunction with the $PM_{2.5}$ FRM network and the $PM_{2.5}$ speciation network. These parameters are supplemented with the NCore specific parameters that include NO_y, Low Level CO and Low Level SO_2.

NO_y which is defined as the sum of all reactive nitrogen oxides includes NO, and NO_2, and other nitrogen oxides referred to as NO_z. The NCore program requires NO_y monitoring because it is the best indicator of the results from NO_x reduction strategies, it is valuable for ecosystem assessments, it is important for model evaluation, and it supports NO_2 estimates for health effects studies.

CO is important to the NCore program because it is used in model evaluation, it is a surrogate for many combustion-related pollutants, it is included in health effect studies, and it can be used to assess control programs. CO is also monitored under the existing criteria monitoring program but NCore requires more accuracy at lower concentrations and siting that makes the data more representative of wider areas than the existing network.

SO_2 is important for model evaluation because of its role in the formation of sulfate, which comprises a large percentage of $PM_{2.5}$ mass, particularly in the Northeast. SO_2 is also important for some health effect studies and, like CO, it must be monitored accurately at low concentrations to meet the objectives of the NCore program.

To meet the monitoring requirements, trace level instruments for SO_2 and CO as well as NO_y measurements have all been operational at the three NCore sites since the beginning of 2011.

Acid Deposition Monitoring Network

NYSDEC's acid deposition program was initially established in response to the State Acid Deposition Control Act (SADCA) in 1985. This program was designed to provide measurements of acid deposition and related quantities necessary to assess the effectiveness of sulfur control policy and other strategies aimed at reducing the effects of acid rain. The deposition of sulfate statewide has decreased by more than 60% since the monitoring program began and the concentrations of acidic pollutants continue to decline.

At the end of 2012, NYSDEC discontinued the existing acid rain monitoring program and transitioned 7 monitoring locations to the National Acid Deposition Program (NADP). The transition to the NADP has resulted in savings to NYSDEC, provided better and more useful data for use in Federal regulation development and allows for the comparison of data from New York with other acid sensitive regions across the country. Additionally, because the NADP program provides a uniform operational framework, the data from existing NADP sites both within New York and in neighboring states can be utilized in the analysis of deposition in New York.

NYSDEC currently operates 5 wet deposition sites as part of the NADP National Trends Network (NTN). The Bronx (NY06) and Rochester (NY43) sites were established under the Mercury Deposition Network (MDN) and include wet mercury deposition monitoring, in addition to the NTN parameters. NYSDEC added bi-weekly ammonia deposition monitoring to the Bronx site in fall 2025 and is also collecting weekly PFAS deposition samples at the Bronx as part of the PFAS-NTN Subnetwork (PFN), which started as an official NADP network in April 2026. Data from all the NADP sites can be accessed from: http://nadp.slh.wisc.edu/data/

Table 14 Acid Deposition Monitoring Network

Currently active NYSDEC operated NADP monitoring locations:	The other NADP sites currently operating in New York but sponsored by other organizations are:
NY06 Bronx	NY01 Alfred
NY28 Piseco Lake	NY08 Aurora Research Farm
NY43 Rochester	NY20 Huntington Wildlife
NY92 Amherst	NY22 Akwesasne Mohawk-Fort Covington
NY94 Nick's Lake	NY52 Bennett Bridge
	NY67 Ithaca
	NY68 Biscuit Brook
	NY96 Cedar Beach, Southold
	NY98 Whiteface Base
	NY99 West Point

Anticipated Changes in the Next 18 Months

Miscellaneous Projects

Monitoring staff provide technical support and maintenance for several portable field instruments. The advanced leak detection and repair (LDAR) equipment purchased by EPA for NYSDEC has proven to be extremely valuable during field deployments at petroleum storage facilities and compressor stations. In addition to the Forward Looking Infrared (FLIR) camera, staff maintain and calibrate H_2S (hydrogen sulfide) real-time instruments as well as train Regional staff for their proper field use. Laboratory staff prepare and ship evacuated canisters fitted with orifice flow devices to the Regions as needed for whole air grab sampling. These samples are then returned to the laboratory facility for VOC analysis.

Proposed Changes and Additions at Existing Sites

As part of the requirements specified in the revised Monitoring Regulations Parts 53 and 58, a network assessment was performed to determine “if the network meets the monitoring objectives defined in appendix D to this part, whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate for incorporation into the ambient air monitoring network.” As a result of this exercise, NYSDEC is proposing the following modifications to the existing network.

Temporary move of the $PM_{2.5}$ Federal Reference Method (FRM) from JHS45 to IS52

Due to construction at the site, the $PM_{2.5}$ FRM filter-based monitoring equipment was temporally relocated from the JHS45 air monitoring site to the IS52 air monitoring site in 2025. This satisfies colocation requirements for the network. The FRM monitor will be returned to the JHS45 air monitoring site at the end of construction.

Temporary Closure of the JHS126 $PM_{2.5}$ FRM site

Due to roof work at the site, the JHS 126 $PM_{2.5}$ FRM air monitoring equipment has been temporally shut down. The monitor will be returned to operation following the completion of roof work at the site.

Discontinuation of the Wallkill source-oriented Pb monitor

NYSDEC proposes to discontinue the source-oriented lead monitoring site located in Wallkill, Orange County, New York, associated with Ecobat Resources New York LLC, formerly Revere Smelting & Refining Corp., located at 65 Ballard Road in Middletown, Town of Wallkill. The facility operates a secondary lead (Pb) smelter that processes primarily used lead-acid batteries, and its principal emission-generating activities include kiln drying of lead-containing material, smelting, slag casting, refining kettles, and material handling and storage.

This monitor was historically operated to characterize potential ambient lead impacts from the nearby secondary lead smelting source. Under 40 CFR Part 58 Appendix D, state and local monitoring agencies must conduct ambient lead monitoring near Pb sources expected to or shown to contribute to Pb concentrations in excess of the NAAQS. At a minimum, one source-oriented SLAMS monitor is required near each non-airport Pb source emitting 0.50 tons per year or more of Pb, based on the most recent National Emissions Inventory or other scientifically justifiable methods and data.

Facility Emissions

The current emissions information for Ecobat Resources New York LLC indicates that the facility is well below the 0.50 tons per year Pb threshold. TRI data for lead compounds reported by the facility show the following total air releases can be seen in Figure 4-12, below. The reported emissions from the past five years are available in Table 15 .

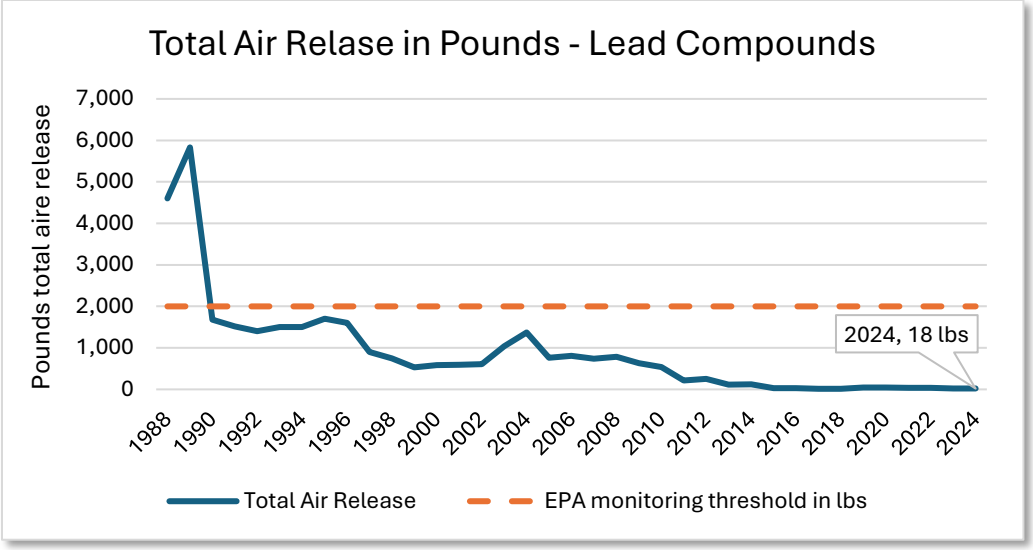


Figure 4-242 Emissions from Ecobat Resources New York LLC

Table 15 Reported Emissions

Reporting Year	Reported TRI total air releases of lead compounds, lbs. from Ecobat Resources New York LLC
2020	47
2021	39
2022	39
2023	18
2024	18

The most recent TRI value, 18 pounds per year, is equivalent to approximately 0.009 tons/year, which is less than 2 percent of the 0.50 tons per year federal source-oriented Pb monitoring threshold. The 2020–2024 average is approximately 32 pounds per year, or 0.016 tons per year, also substantially below the Appendix D monitoring threshold.

Because the facility's reported air releases of lead compounds are well below the level that requires source-oriented Pb monitoring, NYSDEC has determined that continued operation of the Wallkill Pb monitor is no longer necessary to meet the minimum network design requirements of 40 CFR Part 58 Appendix D. Discontinuation of this monitor would not affect NYSDEC's ability to meet applicable Pb monitoring requirements, and the site is not needed to satisfy a minimum Appendix D monitoring requirement.

Ambient Air Measurements

Ambient Pb concentrations measured at the Wallkill site have remained well below the Pb NAAQS of 0.15 µg/m³, measured as a rolling 3-month average. The highest calculated rolling 3-month Pb average in the available 2015–2025 dataset was 0.0339 µg/m³, for the period ending April 2016, which is approximately 22.6 percent of the Pb NAAQS. Since 2018, calculated rolling 3-month averages have been substantially lower; the highest value from 2018 through June 2025 was 0.0098 µg/m³, for the period ending August 2020, which is approximately 6.5 percent of the NAAQS.

Since 2015, there have been no calculated rolling 3-month averages exceeding 50 percent of the Pb NAAQS. These long-term monitoring results, together with current facility emissions information showing reported air releases of lead compounds well below the 0.50 tons/year

source-oriented monitoring threshold, support NYSDEC's proposal to discontinue the Wallkill Pb monitor, pending EPA Region 2 approval.

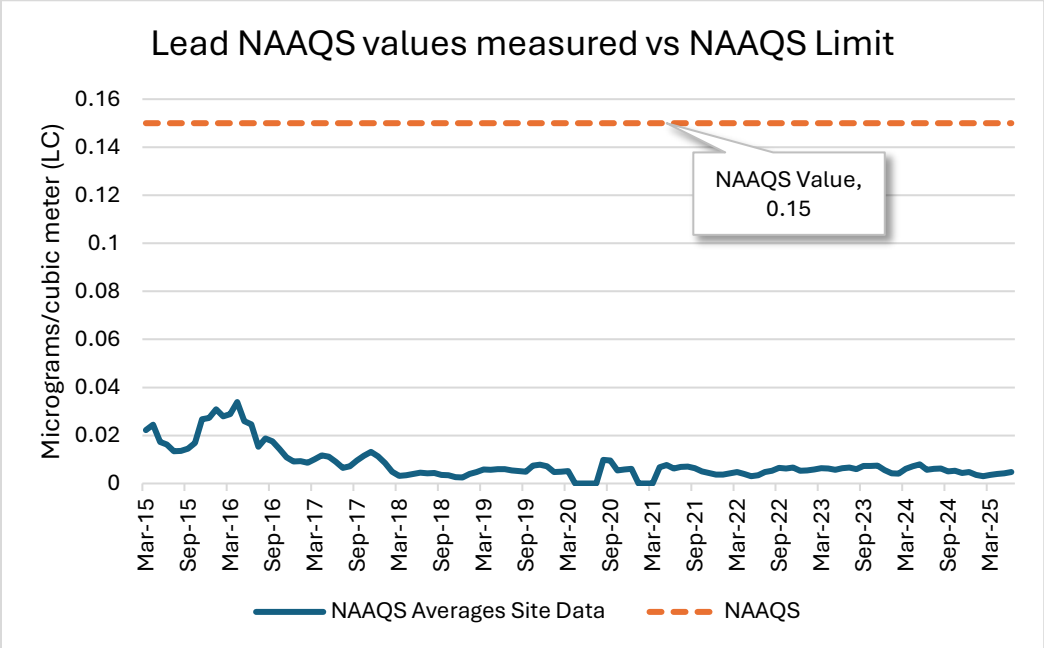


Figure 4-253 Lead NAAQS Values Measured at Wallkill Site vs. NAAQS Limit

NYSDEC will continue to evaluate Pb emissions information for Ecobat Resources New York LLC through applicable emissions inventory, permitting, compliance, and network assessment processes. NYSDEC will reassess monitoring needs if future emissions information, facility changes, modeling, monitoring data, or other information indicates a renewed potential for ambient Pb impacts requiring source-oriented monitoring.

General site improvements

The NYSDEC air monitoring network is one of the largest in the nation, with a mix of leased space in buildings, standalone shelters, and outbuildings. During the 2026 and 2027 monitoring seasons, NYSDEC plans to make several site improvements to ensure continued operation of the air monitoring network. These improvements include repairing or replacing air conditioning units to ensure that instruments do not overheat in the summer, repairing or replacing flooring and roofing, and more.

Monitoring Sites

The Bureau's tasks and responsibilities are carried out by staff in four sections. While the field operators are stationed throughout the State, the managers are physically located in the Central Office in Albany (Northern Monitoring, Network Operations), our Region 2 Office in Long Island City (Southern Monitoring), and the SUNY East Campus in Rensselaer (Monitoring Support). Functionally, the Northern Monitoring Section is responsible for ambient air monitoring sites in upstate New York, north of and including the counties of Rockland and Putnam. The Southern Monitoring Section is responsible for ambient air monitoring sites in the counties of Westchester, Nassau, Suffolk, and those counties comprising the City of New York. Currently there are 55 active sites statewide. Figures 9.1 and 9.2 show monitoring site locations for the two monitoring operations, respectively.

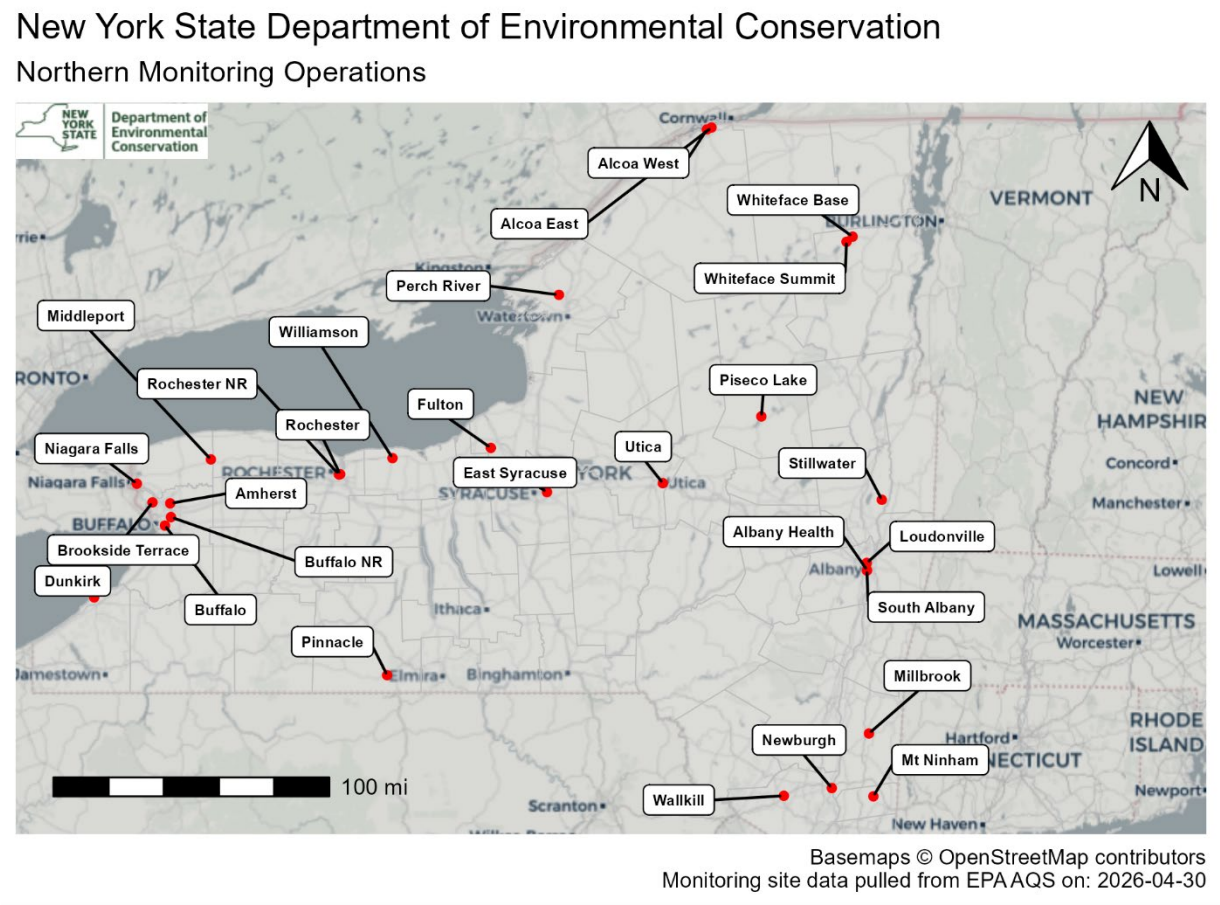


Figure 8-26 Map of Site Locations for Northern Monitoring Operation

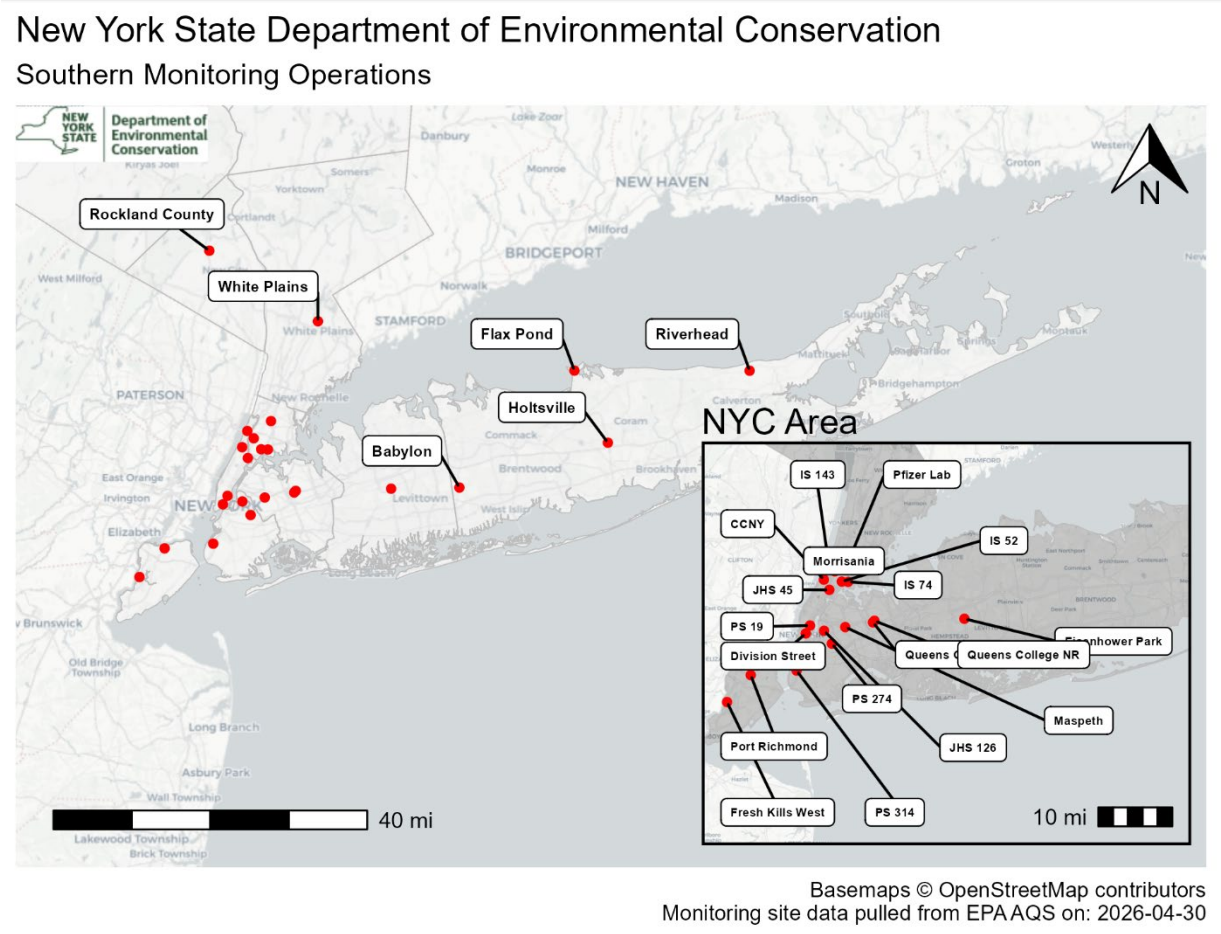


Figure 8-27 Map of Site Locations for Southern Monitoring Operation

Information pertaining to each monitoring site, including location, parameters monitored, sampling frequency, and analysis methodologies, is provided below for the two monitoring operations.

Most of the monitoring sites meet the siting criteria requirements for the parameters monitored as specified in Appendix E of 40 CFR Part 50. For the few sites that do not meet all of the siting requirements, we have demonstrated to EPA that in all instances the site is as representative of the monitoring area as it would be if the siting criteria were being met, and that the monitor or probe cannot reasonably be located so as to meet the siting criteria because of physical constraints. Waivers have been granted by the Regional Administrator for these sites and are documented below in Table 16.

Table 16 Site Waivers

AQS ID	Public Site Name	Waiver Purpose	Waiver Year	Affected Monitors
36-061-0135	CCNY	Relocation of PAMS Site	2017	All PAMS Equipment
36-103-0044	Flax Pond	Relocation of PAMS Site	2017	All PAMS Equipment
36-071-3002	Wallkill	Use of Pb-PM_{10} monitoring in lieu of Pb-TSP monitoring	2017	Particulate Matter Sampler

Southern Monitoring Operations (SMO) Sites

AQS ID	Latitude	Longitude	Site Address	Network Affiliation	Local Site ID	Public Site Name	County	NYS DEC Region	NYS PEJ
36-059-0005	40.74316	-73.58549	EISENHOWER PARK, 740 MERRICK AV at OLD COUNTRY Rd		2950-10	Eisenhower Park	Nassau	1	No
36-103-0002	40.74529	-73.41919	EAST FARMINGDALE WATER DIST., 72 GAZZA BLVD.		5150-02	Babylon	Suffolk	1	No
36-103-0004	40.96078	-72.71238	3059 SOUND AVENUE, RIVERHEAD		5155-01	Riverhead	Suffolk	1	EJ
36-103-0009	40.82799	-73.05754	57 DIVISION STREET		5151-10	Holtsville-Suffolk	Suffolk	1	No
36-103-0044	40.961017	-73.139046	15 Shore Dr. Setauket-East Setauket NY 11733	PAMS	5151-12	Flax Pond	Suffolk	1	No
36-005-0080	40.83606	-73.92009	MORRISANIA CENTER, 1225-57 GERARD AVE.		7094-05	Morrisania	Bronx	2	EJ
36-005-0110	40.816	-73.902	IS 52 681 KELLY ST	NATTS, CSN STN	7094-07	IS 52	Bronx	2	EJ
36-005-0112	40.81551	-73.88553	IS 74 730 BRYANT AV		7094-08	IS 74	Bronx	2	EJ

36-005-0133	40.8679	-73.87809	200TH STREET AND SOUTHERN BOULDVARD Pfizer Lab	PAMS, UNOFFICIAL PAMS	7094-10	Pfizer Lab	Bronx	2	EJ
36-047-0052	40.64182	-74.01871	PS 314, 330 59th ST		7095-07	PS 314	Kings	2	EJ
36-047-0118	40.69454	-73.92769	PS 274 800 BUSHWICK AVE		7095-98	PS 274	Kings	2	EJ
36-047-0122	40.71961	-73.94771	JHS 126 424 LEONARD ST		7095-43	JHS 126	Kings	2	No
36-061-0079	40.7997	-73.93432	SCHOOL IS 45, 2351 1ST AVENUE		7093-08	JHS 45	New York	2	EJ
36-061-0115	40.84955	-73.935649	515 W 182nd St		7093-15	IS 143	New York	2	EJ
36-061-0128	40.73	-73.984	PS 19 185 1ST AVENUE		7093-21	PS 19	New York	2	No
36-061-0134	40.71436	-73.99518	40 DIVISION STREET, PS 124	CSN SUPPLEMENTAL	7093-24	Division Street	New York	2	EJ
36-061-0135	40.81976	-73.94825	160 CONVENT AVENUE		7093-25	CCNY	New York	2	No
36-081-0120	40.72698	-73.89313	Maspeth Library 69-70 GRAND AV		7096-13	Maspeth	Queens	2	EJ
36-081-0124	40.73614	-73.82153	Queens College 65-30 Kissena Blvd Parking Lot#6	NCORE, UNOFFICIAL PAMS, CSN SUPPLEMENTAL	7096-15	Queens College	Queens	2	EJ

36-081-0125	40.739264	-73.817694	I-495, H Harding Expwy and 153rd St	NEAR ROAD	7096-16	Queens College NR	Queens	2	EJ
36-085-0055	40.63307	-74.13719	POST OFFICE, 364 PORT RICHMOND AVE.		7097-03	Port Richmond	Richmond	2	EJ
36-085-0111	40.58027	-74.19832	FRESHKILLS WEST 310 West Service Road		7097-17	Fresh Kills West	Richmond	2	No
36-027-0007	41.78555	-73.74136	Forest Road, VILLAGE OF MILLBROOK, Inst of Ecosystem Studies		1328-01	Millbrook	Dutchess	3	No
36-071-0002	41.49916	-74.00885	55 BROADWAY		3502-04	Newburgh	Orange	3	EJ
36-071-3002	41.45869	-74.35404	260 BALLARD ROAD, TOWN OF WALLKILL, Wakefern Corp		3566-09	Wallkill	Orange	3	EJ
36-079-0005	41.45589	-73.70977	NYSDEC FIELD HQTRS Mt Ninham		3951-01	Mt Ninham	Putnam	3	No
36-087-0005	41.18208	-74.02819	2 South Mountain Road		4353-02	Rockland County	Rockland	3	EJ
36-119-2004	41.05192	-73.76366	WHITE PLAINS PUMP STATION, 240 ORCHARD STREET		5902-04	White Plains	Westchester	3	EJ

Northern Monitoring Operations (NMO) Sites

AQS ID	Latitude	Longitude	Site Address	Network Affiliation	Local Site ID	Public Site Name	County	NYS DEC Region	NYS PEJ
36-001-0005	42.64225	-73.75464	ALBANY CO. HEALTH DEPT. GREEN & S FERRY STREETS	CSN SUPPLEMENTAL	0101-13	Albany Health	Albany	4	EJ
36-001-0012	42.68075	-73.75733	LOUDONVILLE RESERVOIR 300 ALBANY SHAKER RD		0101-33	Loudonville	Albany	4	No
36-001-0013	42.640931	-73.756511	274 S Pearl St, Albany, NY 12202	NATTS	0101-34	South Albany	Albany	5	EJ
36-031-0002	44.36608	-73.90312	Wilmington, SUMMIT, WHITEFACE MTN, WEATHER STATION		1567-03	Whiteface Summit	Essex	5	No
36-031-0003	44.39308	-73.8589	Wilmington, BASE WHITEFACE MTN, ASRC, SUNY	CSN SUPPLEMENTAL, CASTNET	1567-04	Whiteface Base	Essex	5	No
36-041-0005	43.44957	-74.51625	PISECO LAKE AIRPORT		2050-01	Piseco Lake	Hamilton	5	No
36-091-0004	43.01209	-73.6489	SARATOGA NATIONAL HISTORICAL PARK		0101-34	Stillwater	Saratoga	5	No
36-045-0002	44.08747	-75.97316	VAADI ROAD, PERCH RIVER		2223-01	Perch River	Jefferson	6	No

36-065-2001	43.09892	-75.22506	406 ELIZABETH ST., Utica HEALTH Dept		3202-01	Utica	Oneida	6	EJ
36-089-0004	44.955468	-74.9078	327 Pontoon Bridge Rd		4402-08	Alcoa West	St. Lawrence	6	EJ
36-089-0005	44.965412	-74.875	2019 NY-131		4402-07	Alcoa East	St. Lawrence	6	EJ
36-067-1015	43.05235	-76.05921	5895 ENTERPRISE PARKWAY,		3353-09	East Syracuse	Onondaga	7	No
36-075-0003	43.28428	-76.46324	820 COUNTY ROUTE 8		3754-01	Fulton	Oswego	7	EJ
36-055-0015	43.145013	-77.55728	I-490 and 1775 East Avenue, Rochester, NY 14610	NEAR ROAD	2701-23	Rochester NR	Monroe	8	No
36-055-1007	43.14618	-77.54817	2 YARMOUTH ROAD, RG&E Substation	NCORE, NATTS, PROPOSED NCORE, CSN SUPPLEMENTAL	2701-22	Rochester	Monroe	8	No
36-101-0003	42.09142	-77.20978	8301 ACKERSON ROAD, Pinnacle State Park	NCORE, PROPOSED NCORE, CSN SUPPLEMENTAL	5001-04	Pinnacle	Steuben	8	No
36-117-3001	43.23086	-77.17136	4440 Ridge Road, WAYNE County Occupational CENTER, WILLIAMSON		5863-01	Williamson	Wayne	8	No
36-013-0006	42.49963	-79.31881	STP, Wright Park Drive, DUNKIRK		0601-04	Dunkirk	Chautauqua	9	No

36-029-0002	42.99328	-78.77153	AUDUBON GOLF COURSE, 450 MAPLE ROAD		1451-03	Amherst	Erie	9	No
36-029-0005	42.876907	-78.809526	TRAILER,185 DINGENS STREET (near WEISS ST.)	CSN SUPPLEMENTAL	1401-18	Buffalo	Erie	9	No
36-029-0023	42.921107	-78.765825	I90 Mile Post 424.6 East Bound Side, Cheektowaga, NY 14225	NEAR ROAD	1455-02	Buffalo NR	Erie	9	No
36-029-1014	42.99813	-78.89926	192 BROOKSIDE TERRACE WEST		1472-14	Tonawanda II BRTS	Erie	9	No
36-063-1006	43.22386	-78.47888	MIDDLEPORT STP, 3825 NORTH HARTLAND RD		3120-02	Middleport	Niagara	9	EJ
36-063-7001	43.096373	-79.011447	4200 Pine Ave, Niagara Falls, NY 14301	NATTS	3102-26	Niagara Falls	Erie	9	EJ

Measured Parameters by Site

36-001-0005

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Black Carbon PM2.5 Corrected	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Albany-Schenectady-Troy, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	Albany-Schenectady-Troy, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	QUALITY ASSURANCE	NEIGHBORHOOD	Albany-Schenectady-Troy, NY
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	Albany-Schenectady-Troy, NY
PM2.5 Carbon Speciation	URG 3000N w/Pall Quartz filter and Cyclone Inlet	IMPROVE	838	1-in-6 days	POPULATION EXPOSURE	N/A	Albany-Schenectady-Troy, NY
PM2.5 Element Speciation	Met One SASS/SuperSASS Teflon	Energy dispersive XRF	811	1-in-6 days	POPULATION EXPOSURE	N/A	Albany-Schenectady-Troy, NY
PM2.5 Ion Speciation	Met One SASS/SuperSASS Nylon	Ion Chromatography	812	1-in-6 days	POPULATION EXPOSURE	N/A	Albany-Schenectady-Troy, NY
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	GENERAL/BACKGROUND	N/A	Albany-Schenectady-Troy, NY

Particle Number, Total Count	T-API 651/TSI 3783 at 3.0 lpm with 7 nm min. detectable particle (D50)	Water-Based Condensation particle counter	173	Continuous	GENERAL/BACKGROUND	N/A	Albany-Schenectady-Troy, NY

36-001-0012

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	Albany-Schenectady-Troy, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	Albany-Schenectady-Troy, NY

36-001-0013

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND	N/A	Albany-Schenectady-Troy, NY
Toxics	SS 6L- PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	Albany-Schenectady-Troy, NY

36-005-0080

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-005-0110

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Black Carbon PM2.5 Corrected	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	GENERAL/BACKGROUND; OTHER	N/A	New York-Newark-Jersey City, NY-NJ-PA
Collocated Black carbon PM2.5 STP	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	GENERAL/BACKGROUND; OTHER	N/A	New York-Newark-Jersey City, NY-NJ-PA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA
Nitric oxide (NO)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	574	Continuous	GENERAL/BACKGROUND; UNKNOWN	N/A	New York-Newark-Jersey City, NY-NJ-PA
Nitrogen dioxide (NO2)	Instrumental - Teledyne API - Model N500	Cavity-Attenuated Phase-Shift (CAPS) spectroscopy Nitrogen Oxides Analyzer	256	Continuous	GENERAL/BACKGROUND; POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA

Oxides of nitrogen (NOx)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	574	Continuous	GENERAL/BACKGROUND; UNKNOWN	N/A	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND; POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Collocated PM10 - LC	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA
PM10 Metals Speciation	R & P Partisol 2025 Teflon	ICPMS	907	1-in-6 days	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
Collocated PM10 Total 0-10um STP	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	GENERAL/BACKGROUND	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	QUALITY ASSURANCE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Carbon Speciation	URG 3000N w/Pall Quartz filter and Cyclone Inlet	IMPROVE	838	1-in-3 days	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Element Speciation	Met One SASS/SuperSASS Teflon	Energy dispersive XRF	811	1-in-3 days	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

PM2.5 Ion Speciation	Met One SASS/SuperSASS Nylon	Ion Chromatography	812	1-in-3 days	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
Polycyclic Aromatic Hydrocarbons	Hi Vol/PUF-XAD-2	GCMS TO-13	118	1-in-6 days	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
Collocated Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	GENERAL/BACKGROUND	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-005-0112

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-005-0133

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-3 days	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA
NOy - NO	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Nitric oxide (NO)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
Nitrogen dioxide (NO2)	Instrumental - Teledyne API - Model N500	Cavity-Attenuated Phase-Shift (CAPS) spectroscopy Nitrogen Oxides Analyzer	256	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PAMS Precursors	PRECONCENTRATION TRAP	PE 8700;AUTO GC;SUBAMBIENT-DUAL FID	128	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Reactive oxides of nitrogen (NOy)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

Solar radiation	INSTRUMENTAL	PYRANOMETER	011	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Collocated Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	GENERAL/BACKGROUND	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Toxics	SS 6L - PRESSURIZED CANISTER	CRYOGENIC PRECON:GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA
Ultraviolet radiation	INSTRUMENTAL	UV RADIOMETER (PHOTOMETER)	011	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA

36-013-0006

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	HIGHEST CONCENTRATION	URBAN SCALE	Jamestown-Dunkirk-Fredonia, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	UPWIND BACKGROUND	URBAN SCALE	Jamestown-Dunkirk-Fredonia, NY

36-027-0007

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA

36-029-0002

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	Buffalo-Cheektowaga-Niagara Falls, NY
Collocated PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY

36-029-0005

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
Nitrogen dioxide (NO2)	Teledyne-API Model 200EUP or T200UP	Photolytic-Chemiluminescence	200	Continuous	HIGHEST CONCENTRATION	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
Oxides of nitrogen (NOx), Nitric oxide (NO)	Instrumental - Teledyne API - Model N500	Cavity-Attenuated Phase-Shift (CAPS) spectroscopy Nitrogen Oxides Analyzer	256	Continuous	HIGHEST CONCENTRATION	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
PM10 - LC	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
PM10 Total 0-10um STP	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY

PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
Collocated PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
PM2.5 Carbon Speciation	URG 3000N w/Pall Quartz filter and Cyclone Inlet	IMPROVE	838	Intermittent	POPULATION EXPOSURE	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
PM2.5 Element Speciation	Met One SASS/SuperSASS Teflon	Energy Dispersive XRF	811	1-in-6 days	POPULATION EXPOSURE	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
PM2.5 Ion Speciation	Met One SASS/SuperSASS Nylon	Ion Chromatography	812	1-in-6 days	POPULATION EXPOSURE	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
Collocated Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	Buffalo-Cheektowaga-Niagara Falls, NY

36-029-0023

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
Black Carbon PM2.5 Corrected	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND; HIGHEST CONCENTRATION	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
Nitric oxide (NO)	INSTRUMENTAL	GAS PHASE CHEMILUMINESCENCE	099	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
Nitrogen dioxide (NO2)	Instrumental - Teledyne API - Model N500	Cavity-Attenuated Phase-Shift (CAPS) spectroscopy Nitrogen Oxides Analyzer	256	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
Oxides of nitrogen (NOx)	INSTRUMENTAL	GAS PHASE CHEMILUMINESCENCE	099	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY

PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY
Particle Number, Total Count	T-API 651/TSI 3783 at 3.0 lpm with 7 nm min. detectable particle (D50)	Water-Based Condensation particle counter	173	Continuous	HIGHEST CONCENTRATION	MICROSCALE	Buffalo-Cheektowaga-Niagara Falls, NY

36-029-1014

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	HIGHEST CONCENTRATION	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	POPULATION EXPOSURE	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	HIGHEST CONCENTRATION	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
Sulfur dioxide	INSTRUMENTAL	PULSED FLUORESCENT	060	Continuous	HIGHEST CONCENTRATION	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	HIGHEST CONCENTRATION	NEIGHBORHOOD	Buffalo-Cheektowaga-Niagara Falls, NY
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	POPULATION EXPOSURE	N/A	Buffalo-Cheektowaga-Niagara Falls, NY

36-031-0002

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	None
Particle Number, Total Count	T-API 651/TSI 3783 at 3.0 lpm with 7 nm min. detectable particle (D50)	Water-Based Condensation particle counter	173	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	None

36-031-0003

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND	N/A	None
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	None
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	REGIONAL TRANSPORT	REGIONAL SCALE	None
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	REGIONAL TRANSPORT	REGIONAL SCALE	None
PM2.5 Carbon Speciation	URG 3000N w/Pall Quartz filter and Cyclone Inlet	IMPROVE	838	1-in-6 days	POPULATION EXPOSURE	N/A	None
PM2.5 Element Speciation	Met One SASS/SuperSASS Teflon	Energy Dispersive XRF	811	1-in-6 days	UNKNOWN	N/A	None

PM2.5 Ion Speciation	Met One SASS/SuperSASS Nylon	Ion Chromatography	812	1-in-6 days	UNKNOWN	N/A	None
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	GENERAL/BACKGROUND	N/A	None
PM2.5 Total Atmospheric	Virtual Impactor	FDMS-Gravimetric 1405-DF	790	Continuous	OTHER	N/A	None
• Sulfate (TSP) LC • Nitric acid (HNO3) LC • Calcium (TSP) LC • Particulate Nitrate (TSP) LC • Chloride (TSP) LC • Ammonium (TSP) LC • Total Nitrate (NO3 + HNO3) LC • Sodium Ion (TSP) LC • Magnesium (TSP) LC • Sulfur dioxide (LC) • Potassium TSP LC	• Teflon CASTNET-style 3-stage filter pack • Nylon CASTNET-style 3-stage filter pack • Teflon CASTNET-style 3-stage filter pack - Inductively Coupled Plasma • Teflon + Nylon CASTNET-style 3-stage filter pack • Nylon and cellulose CASTNET-style 3-stage filter pack	• Ion Chromatography EPA Modified Method 300.0 • Optical Emission Spectrometry (ICP-OES) EPA Modified Method 6010B • Automated Colorimetry EPA Modified Method 350.1 • Ion Chromatography EPA Method 300.0	900	Weekly	GENERAL/BACKGROUND	REGIONAL SCALE	None
Sulfur dioxide	INSTRUMENTAL	PULSED FLUORESCENT	060	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	None
Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	None
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	None

36-041-0005

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	None
Collocated Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	None

36-045-0002

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Watertown-Fort Drum, NY

36-047-0052

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	MICROSCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-047-0118

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-047-0122

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-055-0015

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	HIGHEST CONCENTRATION	NEIGHBORHOOD	Rochester, NY
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	HIGHEST CONCENTRATION	MIDDLE SCALE	Rochester, NY

Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND; HIGHEST CONCENTRATION	N/A	Rochester, NY
Nitric oxide (NO)	Teledyne-API Model 200EUP or T200UP	Photolytic-Chemiluminescence	200	Continuous	HIGHEST CONCENTRATION	N/A	Rochester, NY
Nitrogen dioxide (NO2)	Instrumental - Teledyne API - Model N500	Cavity-Attenuated Phase-Shift (CAPS) spectroscopy Nitrogen Oxides Analyzer	256	Continuous	HIGHEST CONCENTRATION	MIDDLE SCALE	Rochester, NY
Oxides of nitrogen (NOx)	Teledyne-API Model 200EUP or T200UP	Photolytic-Chemiluminescence	200	Continuous	HIGHEST CONCENTRATION	N/A	Rochester, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	HIGHEST CONCENTRATION	NEIGHBORHOOD	Rochester, NY
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	HIGHEST CONCENTRATION	NEIGHBORHOOD	Rochester, NY
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	HIGHEST CONCENTRATION	MIDDLE SCALE	Rochester, NY
Particle Number, Total Count	T-API 651/TSI 3783 at 3.0 lpm with 7 nm min. detectable particle (D50)	Water-Based Condensation particle counter	173	Continuous	HIGHEST CONCENTRATION	N/A	Rochester, NY

36-055-1007

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Black Carbon PM2.5 Corrected	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	Rochester, NY
Black carbon PM2.5 STP	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	Rochester, NY
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Rochester, NY
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	Rochester, NY
NOy - NO	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	POPULATION EXPOSURE	N/A	Rochester, NY
Nitric oxide (NO)	Instrumental	Chemiluminescence Teledyne API 200 EU/501	699	Continuous	POPULATION EXPOSURE	N/A	Rochester, NY
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	Rochester, NY
PM10 - LC	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	Rochester, NY
PM10 Metals Speciation	R & P Partisol 2025 Teflon	ICPMS	907	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	Rochester, NY
PM10 Total 0-10um STP	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	Rochester, NY

PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	Rochester, NY
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Rochester, NY
PM2.5 Carbon Speciation	URG 3000N w/Pall Quartz filter and Cyclone Inlet	IMPROVE	838	1-in-3 days	POPULATION EXPOSURE	N/A	Rochester, NY
PM2.5 Element Speciation	Met One SASS/SuperSASS Teflon	Energy dispersive XRF	811	1-in-3 days	POPULATION EXPOSURE	N/A	Rochester, NY
PM2.5 Ion Speciation	Met One SASS/SuperSASS Nylon	Ion Chromatography	812	1-in-3 days	POPULATION EXPOSURE	N/A	Rochester, NY
PM2.5 Total Atmospheric	Virtual Impactor	FDMS-Gravimetric 1405-DF	790	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Rochester, NY
Polycyclic Aromatic Hydrocarbons	Hi Vol/PUF-XAD-2	GCMS TO-13	118	1-in-6 days	POPULATION EXPOSURE	N/A	Rochester, NY
Reactive oxides of nitrogen (NOy)	Instrumental	Chemiluminescence Teledyne API 200 EU/501	699	Continuous	POPULATION EXPOSURE	N/A	Rochester, NY
Collocated Sulfur dioxide	INSTRUMENTAL	PULSED FLUORESCENT	060	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Rochester, NY
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	Rochester, NY

36-059-0005

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-061-0079

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	QUALITY ASSURANCE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-061-0115

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-061-0128

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-061-0134

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-061-0135

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA

36-063-1006

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	HIGHEST CONCENTRATION	URBAN SCALE	Buffalo-Cheektowaga-Niagara Falls, NY

36-063-7001

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND	N/A	Buffalo-Cheektowaga-Niagara Falls, NY
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	Buffalo-Cheektowaga-Niagara Falls, NY

36-065-2001

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Utica-Rome, NY
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	GENERAL/BACKGROUND	N/A	Utica-Rome, NY

36-067-1015

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Syracuse, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	Syracuse, NY

PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Syracuse, NY
PM2.5 Total Atmospheric	Virtual Impactor	FDMS-Gravimetric 1405-DF	790	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	Syracuse, NY

36-071-0002

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-071-3002

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Lead (TSP) LC Non-FRM/FEM	Low- Vol TEI 2025 with Omni-directional Inlet	Energy Dispersive X-Ray Fluorescence (EDXRF)	821	1-in-6 days	SOURCE ORIENTED	MIDDLE SCALE	New York-Newark-Jersey City, NY-NJ-PA

36-075-0003

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	REGIONAL TRANSPORT	URBAN SCALE	Syracuse, NY

36-079-0005

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA

36-081-0120

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-081-0124

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
NOy - NO	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Nitric oxide (NO)	Instrumental	Chemiluminescence Teledyne API 200 EU/501	699	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Nitric oxide (NO)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	574	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Nitrogen dioxide (NO2)	Instrumental	Chemiluminescence Thermo Electron 42C-TL, 42i-TL	574	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Oxides of nitrogen (NOx)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	574	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM10 - LC	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

PM10 - LC	Virtual Impactor	FDMS-Gravimetric 1405-DF	790	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM10 Total 0-10um STP	R - P Co Partisol Model 2025	Gravimetric	127	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM10-2.5 - Local Conditions	Thermo Scientific 1405-DF Dichotomous FDMS	FDMS Gravimetric	207	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Carbon Speciation	URG 3000N w/Pall Quartz filter and Cyclone Inlet	IMPROVE	838	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Element Speciation	Met One SASS/SuperSASS Teflon	Energy dispersive XRF	811	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Ion Speciation	Met One SASS/SuperSASS Nylon	Ion Chromatography	812	1-in-3 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Total Atmospheric	Virtual Impactor	FDMS-Gravimetric 1405-DF	790	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Particle Number, Total Count	T-API 651/TSI 3783 at 3.0 lpm with 7 nm min. detectable particle (D50)	Water-Based Condensation particle counter	173	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

Reactive oxides of nitrogen (NOy)	Instrumental	Chemiluminescence Teledyne API 200 EU/501	699	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-081-0125

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	SOURCE ORIENTED	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Black Carbon PM2.5 Corrected	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	SOURCE ORIENTED	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	SOURCE ORIENTED	MIDDLE SCALE	New York-Newark-Jersey City, NY-NJ-PA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA

Nitric oxide (NO), Nitrogen dioxide (NO2), Oxides of nitrogen (NOx)	Instrumental - Teledyne API - Model N500	Cavity-Attenuated Phase-Shift (CAPS) spectroscopy Nitrogen Oxides Analyzer	256	Continuous	SOURCE ORIENTED	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	SOURCE ORIENTED	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	SOURCE ORIENTED	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	SOURCE ORIENTED	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Particle Number, Total Count	T-API 651/TSI 3783 at 3.0 lpm with 7 nm min. detectable particle (D50)	Water-Based Condensation particle counter	173	Continuous	SOURCE ORIENTED	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-085-0055

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-085-0111

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-6 days	OTHER	N/A	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA
Toxics	SS 6L-PRESSURIZED CANISTER	CRYOGENIC PRECON: GC/MS	150	1-in-6 days	SOURCE ORIENTED	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-087-0005

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	GENERAL/BACKGROUND	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	GENERAL/BACKGROUND	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-089-0004

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Collocated Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	SOURCE ORIENTED	MIDDLE SCALE	Ogdensburg-Massena, NY

36-089-0005

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Collocated Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	SOURCE ORIENTED	NEIGHBORHOOD	Ogdensburg-Massena, NY

36-091-0004

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	HIGHEST CONCENTRATION	URBAN SCALE	Albany-Schenectady-Troy, NY

36-101-0003

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Black Carbon PM2.5 Corrected	Magee Scientific AE21ER Aethalometer	Optical absorption	866	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Teledyne API 300 EU / T300U	593	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
NOy - NO	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
Nitric oxide (NO)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	GENERAL/BACKGROUND	URBAN SCALE	Corning, NY
PM10 - LC	Virtual Impactor	FDMS-Gravimetric 1405-DF	790	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-3 days	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY

PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
PM2.5 Carbon Speciation	URG 3000N w/Pall Quartz filter and Cyclone Inlet	IMPROVE	838	1-in-3 days	POPULATION EXPOSURE	N/A	Corning, NY
PM2.5 Element Speciation	Met One SASS/SuperSASS Teflon	Energy dispersive XRF	811	1-in-3 days	POPULATION EXPOSURE	N/A	Corning, NY
PM2.5 Ion Speciation	Met One SASS/SuperSASS Nylon	Ion Chromatography	812	1-in-3 days	POPULATION EXPOSURE	N/A	Corning, NY
PM2.5 Total Atmospheric	Virtual Impactor	FDMS-Gravimetric 1405-DF	790	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
Particle Number, Total Count	T-API 651/TSI 3783 at 3.0 lpm with 7 nm min. detectable particle (D50)	Water-Based Condensation particle counter	173	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
Reactive oxides of nitrogen (NOy)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
Collocated Sulfur dioxide	INSTRUMENTAL	Pulsed Fluorescent 43C-TLE/43i-TLE	560	Continuous	GENERAL/BACKGROUND	REGIONAL SCALE	Corning, NY
Toxics	SS 6L - PRESSURIZED CANISTER	CRYOGENIC PRECON:GC/MS	150	1-in-6 days	GENERAL/BACKGROUND	N/A	Corning, NY

36-103-0002

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC	Gravimetric	145	1-in-6 days	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-103-0004

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA

36-103-0009

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	POPULATION EXPOSURE	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 - Local Conditions	Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled	Broadband spectroscopy	636	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

36-103-0044

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Carbon monoxide	INSTRUMENTAL	Gas Filter Correlation Thermo Electron 48i-TLE	554	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Carbonyls	SILICA-DNPH-CART-KI O3 SCRUB	HPLC ULTRAVIOLET ABSORPTION	202	1-in-3 days	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
NOy - NO	Instrumental	Chemiluminescence Teledyne API 200 EU/501	699	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Nitric oxide (NO)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Nitrogen dioxide (NO2)	Teledyne Model T500U	Cavity Attenuated Phase Shift Spectroscopy	212	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
PAMS Precursors	PRECONCENTRATION TRAP	PE 8700;AUTO GC;SUBAMBIENT-DUAL FID	128	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Reactive oxides of nitrogen (NOy)	Instrumental	Chemiluminescence Thermo Electron 42C-Y, 42i-Y	674	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

Solar radiation	INSTRUMENTAL	PYRANOMETER	011	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Ultraviolet radiation	INSTRUMENTAL	UV RADIOMETER (PHOTOMETER)	011	Continuous	MAX PRECURSOR EMISSIONS IMPACT	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA

36-117-3001

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	HIGHEST CONCENTRATION	URBAN SCALE	Rochester, NY

36-119-2004

Parameter	Sampling Method	Analysis Method	Method Code	Operating Schedule	Monitoring Objective	Measurement Scale	CSBA
Acceptable PM2.5 AQI & Speciation Mass	PM2.5 SCC w/Correction Factor	TEOM Gravimetric 50 deg C	702	Continuous	POPULATION EXPOSURE	NEIGHBORHOOD	New York-Newark-Jersey City, NY-NJ-PA
Ozone	INSTRUMENTAL	ULTRA VIOLET ABSORPTION	087	Continuous	HIGHEST CONCENTRATION	URBAN SCALE	New York-Newark-Jersey City, NY-NJ-PA
PM2.5 Raw Data	PM2.5 SCC w/No Correction Factor	TEOM Gravimetric 50 deg C	701	Continuous	POPULATION EXPOSURE	N/A	New York-Newark-Jersey City, NY-NJ-PA

Revision Record

Table 17 Revision Record

Revision	Date	Responsible Entity	Description of Change
1.0	5/20/2026	DEC BAQS	Initial release.
2.0	5/20/2026	DEC BAQS	Corrected Revision Record, added table for site 36-001-0013, and changed formatting.