

NEW YORK STATE AMBIENT AIR QUALITY REPORT FOR 2020

New York State Ambient Air Monitoring Program

BUREAU OF AIR QUALITY SURVEILLANCE DIVISION OF AIR RESOURCES NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Summary and background information

This technical document is designed to provide summary information about the ambient air quality in New York State as it relates to the EPA's National Ambient Air Quality Standards (NAAQS). The data here is provided in the same format at the EPA NAAQS, and as such may include information at air quality monitoring stations that have since been closed. In the footer of each page there is a key to assist in the interpretation of the data. Site numbers are the NYS internal site identifiers and are different than the AQS site numbers.

This document does not cover all pollutants measured, only those that have a NAAQS criteria. More information about the other programs for which the NYSDEC collects data, and more detailed information about the instrumentation currently available at individual site can be found in the <u>Monitoring Network Plan</u>.

For more information about the current and historic NAAQS, standards for regulatory action, health effects of individual pollutants, and more please go to the EPA's Criteria Air Pollutants webpage.

Full datasets are available for download and review from the EPA Air Data webpage using the API.

For current Air Quality Index (AQI) Forecast and Current Observations for New York State, please go to the NYSDEC's AQI webpage.

2020 Change Notes:

Due to the COIVD-19 Pandemic, some sites were inaccessible causing data completeness to be below 75%.

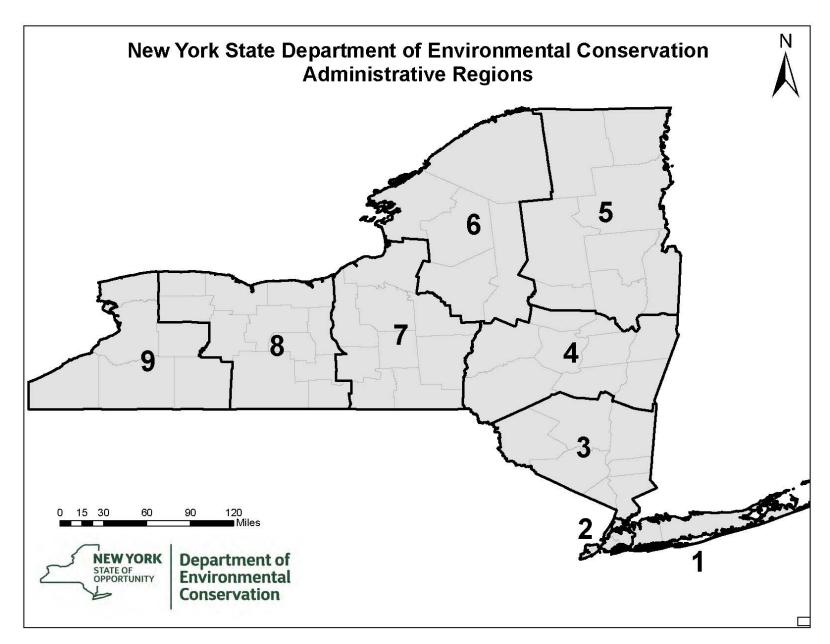
File version: 4/13/2020

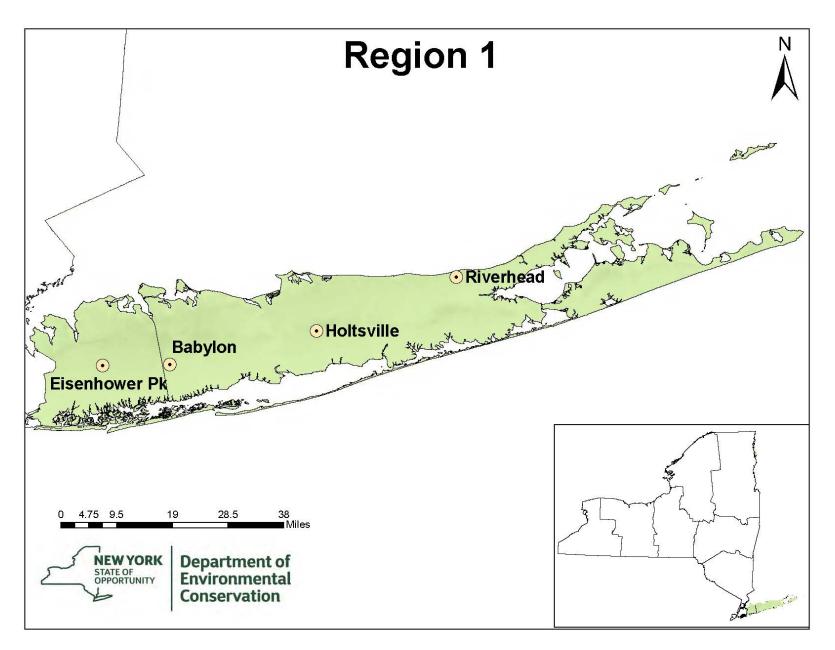
National Ambient Air Quality Standards

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxi	مام		8-hour	9 ppm	N-44- h d-d dh
Cardon Mionoxi	ae	primary	1-hour	35 ppm	Not to be exceeded more than once per year
Lead		primary and secondary	Rolling 3-month average	0.15 μg/m ³	Not to be exceeded
Nitrogen Dioxid	ام	primary	1-hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
Nitrogen Dioxid		primary and secondary	Annual	53 ppb ⁽²⁾	Annual Mean
Ozone		primary and secondary	8-hour	0.070 ppm ⁽³⁾	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
		primary	Annual	12 μg/m ³	annual mean, averaged over 3 years
	PM _{2.5}	secondary	Annual	$15 \mu g/m^3$	annual mean, averaged over 3 years
Particle Pollution		primary and secondary	24-hour	35 μg/m ³	98th percentile, averaged over 3 years
	PM ₁₀	primary and secondary	24-hour	150 μg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide		primary	1-hour	75 ppb ⁽⁴⁾	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

Footnotes

- (1) Final rule signed October 15, 2008. The 1978 lead standard (1.5 μg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 year, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- (2) The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.
- ⁽³⁾ Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O₃ standards additionally remain in effect in some areas. Revocation of the previous (2008) O₃ standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.
- (4) The previous SO₂ standards (0.14 ppm 24-hour and 0.03 ppm annual/ 30 ppb) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which implementation plans providing for attainment of the current (2010) standard have not been submitted and approved and which is designated nonattainment under the previous SO₂ standards or is not meeting the requirements of a SIP call under the previous SO₂ standards (40 CFR 50.4(3)), A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the require NAAQS.





SULFUR DIOXIDE - Continuous Pulsed Fluorescence Parameter Code: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB* (4))

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Eisenhower Park	36-059-0005	2.09	1.97	1.51	1.12	1.35	1.03	0.4	0.23	0.23	0.24	0.30
Holtsville	36-103-0009	5.81	2.22	1.03	1.2	0.84	0.77	0.39	0.16	0.12	0.08	0.06

Holtsville site (5151-10) was operated by Suffolk County Health Dept. until 9/30/10, when NYSDEC commenced monitoring.

		avera	ge of 99 th pero	One Hour	Č	to exceed 75	PPB *				
Observations 99th Percentile, PPB											
	Total Data 2018 2019 2020 3-yr										
Station	Site No.	Obs.	Avail	2016	2019	2020	Avg.				
Eisenhower Park	36-059-0005	8,603	98	8.2	10.6	13.6	10.80				
Holtsville	36-103-0009	8,150	93	4.9	3.2	2.4	3.50				

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

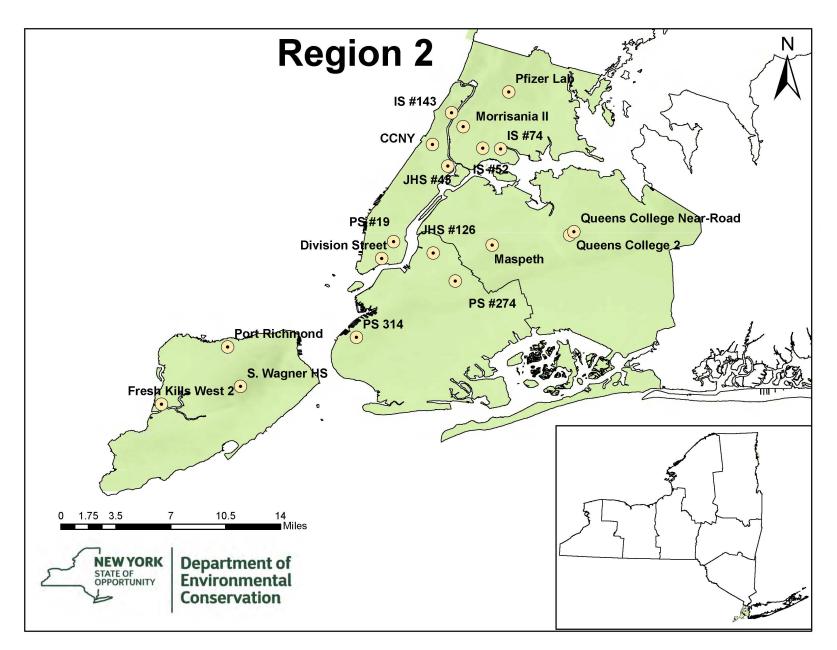
(Average of last 3 years' annual means not to exceed 12 μg/m³*; and average of 98th percentile for last 3 years not to exceed 35 μg/m³*)

Station	EPA	EPA Mathad	C'4. N.	Daily	Maximu	ım Values	s, μg/m ³	98tl	h Perce	ntile, με	g/m ³		Quar verag	terly es, 202	20	An	nual M	l ean, μg.	$/m^3$
Station	Param Code	Method Code	Site No.	Obs	1	2	3	2018	2019	2020	3-yr Avg.	1	2	3	4	2018	2019	2020	3-yr Avg.
Eisenhower	88502	702	36-059-0005	366	22.0	21.5	19.1	16.6	15.0	15.0	15.5	7.0	3.6	4.8	6.7	6.0	5.7	5.5	5.7
Park (C)	88302	702	30-039-0003	300	7-Nov	8-Nov	23-Jan	10.0	13.0	13.0	13.3	7.0	3.0	4.0	0.7	0.0	3.1	5.5	3.7
Babylon (F)	88101	145	36-103-0002	93	21.6	19.1	14.3	16.7	17.0	19.1	17.6	5.5	6.2	7.4	6.1	6.8	6.4	6.3	6.5
Babyloli (F)	00101	143	30-103-0002	93	20-Dec	8-Nov	11-Dec	10.7	17.0	19.1	17.0	3.3	0.2	7.4	0.1	0.8	0.4	0.5	0.5
II-14:11- (C)	00502	702	26 102 0000	254	21.4	18.9	17.3	16.6	12.2	14.4	140	6.9	2.7	4.0	6.4	6.6	5.5	5.4	5 0
Holtsville (C)	88502	702	36-103-0009	354	8-Nov	7-Nov	4-Jul	16.6	13.3	14.4	14.8	6.8	3.7	4.8	6.4	6.6	5.5	5.4	5.8

OZONE - Continuous UV Light Absorption

Parameter Code: 44201

				8-hr Runr	ning Averag	ge Begin Ho	ur		4th Highes	t Daily Max	imum 8-Hou	ır Average-
		0	bservati	ons	Da	aily Highest	Values, PF	PM	Not to exc	ceed an avg o last 3	f 0.070 ppm years.	during the
		Total Daily	%	Days >.070								
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.
Babylon	36-103-0002	239	98	3	0.080	0.073	0.071	0.069	0.074	0.072	0.069	0.071
Babyion	30-103-0002	239	70	3	20-Jul	26-Jun	27-Jul	18-Jul	6-Aug	27-Jun	18-Jul	0.071
Holtsville	36-103-0009	236	97	4	0.08	0.074	0.073	0.073	0.076	0.068	0.073	0.072
Hollsville	30-103-0009	230	97	4	20-Jul	27-Jul	28-Jul	28-Jul	6-Aug	3-Jul	28-Jul	0.072
D' 1 1	26 102 0004	245	100	2	0.075	0.075	0.072	0.069	0.072	0.07	0.069	0.070
Riverhead	36-103-0004	245	100	3	27-Jul	27-Jul	5-Aug	20-Jul	2-May	31-May	20-Jul	0.070



SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter Code: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB (4))

					,							
Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Botanical Garden	26 005 0122	4.92	1.65	2.20	2.44	1.0	1.20	0.94	0.50	0.62	0.56	0.44
(Harding Lab/Pfizer Lab)	36-005-0133	4.83	4.65	3.28	2.44	1.9	1.29	0.84	0.59	0.63	0.56	0.44
IS 52	36-005-0110	6.22	XX	2.1	1.22	1.36	1.83	0.67	0.54	0.57	0.41	0.42
Queens College	36-081-0124	2.83	2.65	1.79	1.22	1.11	0.75	0.57	0.52	0.41	0.36	0.35

Sampling was suspended at 7094-07 on 06/24/10 due to building construction and resumed on 08/10/13. Sampling was suspended at 7093-10 in 2009

		averaş	ge of 99 th pero	One Hour	•	to exceed 75	PPB *		
	Observations 99 th								
Station	Site No.	Total Obs.	% Avail	2018	2019	2020	3-yr Avg.		
Botanical Garden (Harding Lab/Pfizer Lab)	36-005-0133	8,525	97	6.2	4.3	3.8	4.77		
IS 52	36-005-0110	8,662	99	7.5	4.5	4.3	5.43		
Queens College 2	36-081-0124	8,400	96	5.5	5.4	6.4	5.77		

INHALABLE PARTICULATES (PM₁₀) Parameter Code:81102

				24-Hour C	oncentrat	ions - μg/m	1 ³		Not	to exce	ed an ex	xpected	0 μg/m ³ d avg of 3 years	one per	year
		Maximum 2nd Max. 3rd Max. 2018 2019 2020													
		Total													Exp.
Station	Site No.	Obs.	Value	Date	Value	Date	Value	Date	Mea	Est	Mea	Est	Mea	Est	Avg.
Division Street	36-061-0134	30	24.	22-Jan	21	3-Feb	18	10-Jan	0	0	0	0	0	0	0
IS 52	36-005-0110	123	31	24-Sep	31	24-Sep	28	11-Dec	0	0	0	0	0	0	0
Queens College 2	36-081-0124	62	28	2-Feb	24	11-Nov	21	2-Jul	0	0	0	0	0	0	0

(Manhattan Sites)

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years' annual means not to exceed 12 μg/m³ *; and average of 98th percentile for last 3 years not to exceed 35 μg/m³ *)

					Maxim	um Value	s, μg/m ³	98t	h Perce	ntile, µջ	g/m ³	Qua	-	Avera 20	iges,	Anı	nual Me	ean, μg/	m^3
Station	EPA Param Code	EPA Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1	2	3	4	2018	2019	2020	3-yr Avg.
JHS 45 (F)	88101	145	36-061-0079	108	20.7 8-Nov	17 24-Feb	16.4 20-Dec	19.7	18.7	17.0	18	6.9	xx	7.6	6.4	8.1	7.2	7.1	7.4
IS 143 (C)	88502	702	36-061-0115	290	23.3 8-Nov	22.5 25-Dec	22.0 9-Nov	18.9	17.0	17.5	18	8.7	5.0	6.3	8.1	7.7	7.0	7.5	7.4
PS 19 (C)*	88502	702	36-061-0128	0	XX XX	xx xx	xx xx	21.8	17.8	XX	20	xx	xx	xx	xx	8.8	8.0	XX	8.4
PS 19 (F)*	88101	145	36-061-0128	0	XX XX	XX XX	XX XX	27	19.6	xx	23	XX	XX	XX	xx	10.4	8.8	XX	9.6
Division St (F)	88101	145	36-061-0134	23	16.5 24-Feb	13.2 18-Feb	13.2 4-Jan	21.6	19.5	16.5	19	9.1	xx	xx	xx	9.6	8.6	9.1	9.1
Division St (C)	88502	702	36-061-0134	69	19.4 24-Jan	17.3 23-Jan	16.1 3-Jan	19.3	17.7	16.6	18	8.8	xx	xx	xx	6.8	6.8	8.8	7.5
CCNY (C)	88502	702	36-061-0135	328	18.5 23-Jan	16.9 25-Sep	16.6 5-Jul	17.5	14.7	15.6	16	7.7	4.4	5.8	6.8	8.0	6.6	6.1	6.9

⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

^{*} Sampling stopped at PS19 due to roof work in 2019

INHALABLE PARTICULATES (PM2.5)

(Bronx & Brooklyn Sites)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years' annual means not to exceed 12 μg/m³ *; and average of 98th percentile for last 3 years not to exceed 35 μg/m³ *)

					Maxin	num Value	s , μg/m ³	98tl	h Perce	ntile, με	g/m ³	Qua	rterly 20	Avera 20	iges,	Anı	nual Me	ean, μg/	m ³
Station	EPA Param Code	EPA Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.
Morrisania	88502	702	36-005-0080	366	23.3	22.2	22.1	18.6	16.1	15.9	16.9	7.6	3.7	5.3	7.0	7.0	6.2	5.9	6.4
(C)					4-Jul	8-Nov	9-Nov												
IS 52 (F)	88101	145	36-005-0110	215	29.9	24.5	24.5	19.3	19.4	20.4	19.7	6.3	XX	7.2	6.5	8.0	7.4	6.7	7.3
. ,					29-Jan	24-Jan	24-Jan												
IS 52 (C)	88101	236	36-005-0110	365	30.0	27.1	24.6	18.9	20.2	20.6	19.9	8.6	6.8	9.1	8.9	8.6	8.6	8.4	8.5
13 32 (C)	00101	230	30-003-0110	303	9-Nov	8-Nov	21-Dec	16.9	20.2	20.0	19.9	0.0	0.8	9.1	0.9	8.0	0.0	0.4	6.5
IS 74 (C)	88502	702	36-005-0112	366	25.4	21.7	19.3	17.0	15.8	15.9	16.2	7.8	4.1	5.9	7.1	6.6	6.3	6.2	6.4
15 /4 (C)	88302	702	30-003-0112	300	9-Nov	8-Nov	25-Sep	17.0	13.0	13.9	10.2	7.0	7.1	3.9	7.1	0.0	0.5	0.2	0.4
Botanical Gdn	88101	145	36-005-0133	98	20	16.5	16.5	21.5	19.2	16.5	19.1	6.9	6.6	7.6	6.5	8.3	7.0	6.9	7.4
- Pfizer (F)	00101	143	30-003-0133	76	8-Nov	20-Dec	11-Dec	21.3	19.2	10.5	19.1	0.9	0.0	7.0	0.5	0.5	7.0	0.9	7.4
PS 314 (C)	88502	702	36-047-0052	366	22.5	22.4	17.7	15.9	14.7	14.7	15.1	7.0	3.3	5.3	6.6	6.1	6.0	5.5	5.9
13314 (C)	86302	702	30-047-0032	300	8-Nov	9-Nov	24-Jan	13.9	14./	14./	13.1	7.0	3.3	3.3	0.0	0.1	0.0	3.3	3.9
JHS 126 (F)	88101	145	36-047-0122	72	24.5	19.7	17.8	17.9	18.4	19.7	18.7	7.3	WW.	7.6	7.2	7.9	7.6	7.4	7.6
лъ 120 (г)	00101	143	30-04/-0122	12	8-Nov	14-Nov	11-Dec	17.9	16.4	19./	10./	7.3	XX	7.0	1.2	7.9	7.0	7.4	7.0
PS 274 (C)	88502	702	36-047-0118	351	23.2	22.4	20.4	17.1	15.1	15.4	15.9	7.4	3.6	4.8	6.4	6.2	5.9	5.5	5.9
13 2/4 (C)	88302	/02	30-04/-0118	331	9-Nov	8-Nov	13-Aug	1/.1	13.1	13.4	13.9	/.4	3.0	4.0	0.4	0.2	3.9	3.3	3.9

⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

INHALABLE PARTICULATES (PM2.5)

(Queens, and Staten Island Sites)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years' annual means not to exceed 12 μg/m³ *; and average of 98th percentile for last 3 years not to exceed 35 μg/m³ *)

Station	EPA Param	EPA Method	Site No.	Total	Maxim	um Valu	es, μg/m ³	98t	h Perce	ntile, µչ	g/m³	Qua	rterly 20		iges,	An	nual M	ean, μg	$/\mathrm{m}^3$
Station	Code	Code	Site No.	Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.
Maspeth Library (C)	88502	702	36-081-0120	206	16.6 3-Jan	16.3 24-Jan	15.3 23-Jan	16.5	14.9	14.3	15.2	7.3	3.3	2.2	8.5	6.5	6.0	5.6	6.0
Queens College 2 (FRM)	88101	145	36-081-0124	226	20.7 8-Nov	15.5 24-Sep	15.3 20-Dec	19.1	17.8	16.1	17.7	6.4	6.8	7.9	6.2	7.3	6.7	6.9	7.0
Queens College 2 (FEM)	88101	182	36-081-0124	361	27.4 9-Nov	24.0 21-Dec	22.2 8-Nov	18.3	16.6	16.1	17.0	5.8	4.4	6.5	5.9	6.6	5.9	5.7	5.9
Queens College Near Road (C)	88502	702	36-081-0125	184	25.1 9-Nov	24.1 8-Nov	18.7 21-Dec	18.6	16.7	17.9	17.8	XX	xx	6.1	7.6	7.4	7.2	6.8	7.2
Queens College Near Road (F)	88101	145	36-081-0125	88	22.4 8-Nov	16.4 24-Sep	15.8 20-Dec	19.5	18.4	16.4	18.1	7.5	7.5	8.1	6.4	8.3	7.8	7.4	7.8
Port Richmond (F)	88101	145	36-085-0055	87	24.2 8-Nov	22 7-Jan	18.1 24-Feb	20.1	20.9	22.0	21.0	7.8	6.9	8.7	7.2	7.7	7.6	7.6	7.6
Port Richmond (C)	88502	702	36-085-0055	332	24.6 8-Nov	22.4 12-Dec	20.9 7-Nov	18.3	16.6	16.7	17.2	7.4	3.4	6.3	7.0	7.2	6.0	6.0	6.4
Freshkills West (C)	88502	702	36-085-0111	363	21.5 8-Nov	21.2 12-Dec	19.8 9-Nov	20.5	15.4	15.2	17.0	7.0	4.3	5.4	6.2	8.0	6.5	5.7	6.8

(FRM or FEM) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

(C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

CARBON MONOXIDE - Continuous Gas Filter Correlation

Parameter Code: 42101

		Maximu	ım not to	exceed 3	ur Averag 35 PPM m ar year *	e ore than o	nce per		mum not to (,	Non-Overlap M more than ar *	2 0,
		Ob	servatio	ns	High	est Values,	PPM	Obsei	rvations	Hig	hest Values,	PPM
		Total	%	>35	1 /	2.1	2.1		>9			Days>
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	Total	PPM	1st	2nd	9 PPM
CCNIV	26.061.0125	0.505	98	0	1.99	1.80	1.69	2.945	0	1.50	1.40	0
CCNY	36-061-0135	8,585	98	U	4-Feb	3-Jan	23-Jan	2,845	U	4-Feb	23-Jan	0
Botanical Gardens	26 005 0122	7.620	87	0	1.92	1.72	1.59	2.522	0	1.30	1.20	0
(Pfizer Lab)	36-005-0133	7,629	8/	U	12-Dec	11-Dec	24-Jan	2,533	U	24-Jan	23-Jan	0
O C-11 2	26 091 0124	7.077	91	0	2.13	1.88	1.60	2.652	0	1.60	1.60	0
Queens College 2	36-081-0124	7,977	91	U	9-Nov	18-Oct	11-Dec	2,653	0	9-Nov	9-Nov	0
Queens College	26 001 0125	7,002	00	0	2.33	2.12	2.02	2.400	0	1.80	1.80	0
Near Road	36-081-0125	7,893	90	0	9-Nov	8-Nov	18-Oct	2,489	0	9-Nov	9-Nov	0

OZONE - Continuous UV Light Absorption

(Bronx, Brooklyn, and Staten Island Sites)

Parameter Code: 44201

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

				8-hr	Running Av	verage Begin	Hour		4th H	ighest Daily Ave	Maximum rage-	8-Hour
		Ol	oservatio	ons	1	Daily Highes	t Values, PP	М	Not to exc	ceed an avg o last 3	of 0.070 ppm years	during the
		Total	%	Days >.070								
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.
Botanical Garden	36-005-0133	243	100	1	0.073	0.070	0.070	0.069	0.077	0.068	0.069	0.071+
(Pfizer Lab)	30-003-0133	243	100	1	9-Jun	19-Jul	19-Jul	22-Jul	6-Aug	17-Jul	22-Jul	0.071+
IC 52	36-005-0110	243	100	0	0.069	0.068	0.068	0.066	0.071	0.069	0.066	0.069
IS 52	30-003-0110	243	100	U	9-Jun	22-Jul	22-Jul	19-Jul	18-Jun	29-Jul	19-Jul	0.068
E1-1-11-W4	26 005 0111	236	97	2	0.073	0.071	0.063	0.062	XX	0.065	0.062	0.062
Freshkills West	36-085-0111	230	9/	L	22-Jul	9-Jun	1-Aug	19-Jul	XX	30-Jul	19-Jul	0.063
C W.	26.095.0067		0	0 0	XX	XX	XX	XX	XX	XX	XX	
Susan Wagner	36-085-0067	XX	0	U	XX	XX	XX	XX	XX	XX	XX	XX

Sampling was suspended at 7094-01 from in 2018 due to building construction

OZONE - Continuous UV Light Absorption

(Manhattan and Queens Sites)

Parameter: 44201

				8-hr Rı	ınning Avera	ige Begin Ho	ır		4th Highe	st Daily Max	imum 8-Hou	ır Average-
		(Observati	ions	Γ	Paily Highest	Values, PPN	И	Not to exce		0.070 ppm du rears	uring the last
	Total % Da >.0											Avg.
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	
CCNY	36-061-0135	242	99	1	0.073	0.070	0.070	0.069	0.077	0.066	0.069	0.070
CCNT	30-001-0133	242	99	1	22-Jul	19-Jul	19-Jul	9-Jun	10-Jul	3-Jul	9-Jun	0.070
One one Callege	26 001 0124	241	341 93	2	0.082	0.072	0.071	0.068	0.073	0.071	0.068	0.070
Queens College	36-081-0124	341		3	30-Jul	27-Jul	22-Jul	9-Jun	25-May	29-Jul	9-Jun	0.070

NITROGEN DIOXIDE - Continuous Chemiluminescence

Parameter:42602

Annual Averages 2010 through 2020

Annual Arithmetic Mean (PPB) - Primary Standard (12-month average not to exceed 53 PPB *)

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Botanical Garden	36-005-0133	20.1	20.86	18.61	18.37	17.2	17.1	15.59	14.91	14.44	12.81	12.36
(Harding Lab/Pfizer Lab)	/7094-06	20.1	20.80	18.01	16.37	17.2	17.1	13.39	14.91	14.44	12.81	12.50
IS 52	36-005-0110	24.94	XX	20.8	20.67	19.88	20.13	18.27	17.3	17.46	16.87	15.22
Queens College	36-081-0124	19.28	21.62	17.5	17.5	16.75	17.16	15.81	15.25	14.44	14.18	12.46
Queens College Near-Road	36-081-0125	XX	16.29	16.44	16.84	14.79						

Sampling was suspended at 7094-07 on 06/24/10 due to building construction, and resumed on 08/10/13.

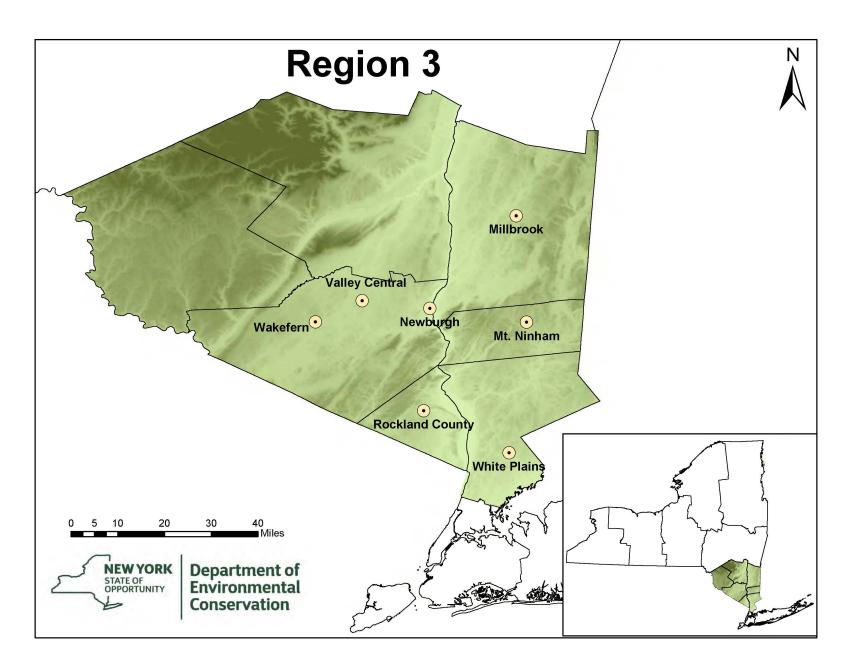
			One-Hour	Averages - a	verage of 98tl	h percentile f	or last 3 years	s not to excee	ed 75 PPB *	
		Obser	vations		98th Perce	entile, PPB		High	hest Values,	PPB
Station	Site No.	Total	% Avail	2018 2019 2020 3				1st	2nd	3rd
Botanical Gardens - Pfizer Lab	36-005-0133	8,648	99	53.9	50.4	47.1	50.5	62.0 02/24 :08	59.76 11/08 :20	55.34 02/24 :11
IS 52	36-005-0110	7,673	88	59.3	57.7	52.7	56.6	76.4 11/08 :22	75.9 11/08 :23	75.1 11/09 :00
Queens College	36-081-0124	8,512	97	53.1	53.9	52.4	53.1	76.2 11/09 :09	64.5 11/09 :08	64.3 11/09 :10
Queens College Near- Road	36-081-0125	8,222	94	53.5	51.0	54.1	52.9	72.8 11/09 :09	63.8 11/09 :10	60.7 11/09 :08

⁽Annual Means in parentheses are based on less than 75% available data)

^{*}New York and Federal Ambient Air Quality Standard + Denotes a contravention of NYS/Federal AAQS

LEAD -PM₁₀ Samplers Parameter: 85128

				24-Но	ır Concen	trations -	μg/m³			Maximum	E MONTH R AVERAGES In not to exceed stive beginning	S $10.15 \ \mu g/m^3$,
				Maxi	mum	2nd	Max.	3rd	Max.	Hig	Highest Values, μg/m ³	
Station	Site No.	Total Obs.	% Avail	Value	Date	Value	Date	Value	Date			2020
IS 52	36-005-0110	33	54	.0073	09/24	.0070	12/11	.0055	01/22	0.0033 0.0027 .0027		



SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB* (4))

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Mt. Ninham	36-079-0005	0.8	0.86	0.73	0.72	0.63	0.59	0.23	0.22	0.11	0.13	0.12
Millbrook	36-027-0007	XX	1.15	1.42	2.45	0.65	0.81	0.18	0.16	0.18	0.23	0.1
Belleayre Mtn.	36-111-1005	0.5	0.52	0.31	XX							

Sampling was suspended at 5565-03 in 2013

				One Hour	Averages		
		avera	ge of 99th per	centile for las	t 3 years not	to exceed 75	PPB *
		Obser	vations		99 th Perce	entile, PPB	
Station	Site No.	Total	%	2018	2019	2020	3-yr
Station	Site 110.	Obs.	Avail	2010	2017	2020	Avg.
Mt. Ninham	36-079-0005	8,390	96	3.4	1.5	1.1	2.0
Millbrook	36-027-0007	8,606	98	3.4	1.6	1.2	2.1

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years= annual means not to exceed 12 μ g/m3 *; and average of 98th percentile for last 3 years not to exceed 35 μ g/m³ *, changed from 65 m³g/m³ on 12/17/06)

					Max	imum V μg/m³	alues,	98th	Perce	ntile, µջ	g/m ³	Qua		Avera 020	ages,	A	nnual	Mean,	μg/m³
Station	EPA Param Code	EPA Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.
Newburgh (F)	88101	145	36-071-0002	87	26.1 5-Jul	21.5 20-Dec	21.5 8-Nov	16.2	14.5	21.5	17.4	5.7	6.4	7.0	6.1	6.4	5.8	6.3	6.2
Newburgh (C)	88502	702	36-071-0002	366	26.1 5-Jul	25.4 5-Jul	23.7 8-Nov	17.2	14.8	16.7	16.2	7.3	3.6	5.1	6.7	5.9	5.8	5.7	5.8
Rockland Co. (C)	88502	702	36-087-0005	366	25.4 5-Jul	16.9 9-Nov	16.0 20-Dec	16.4	13.5	13.7	14.5	6.4	3.1	4.7	5.8	5.5	5.2	5.0	5.2
White Plains (C)	88502	702	36-119-2004	360	21.1 5-Jul	19.1 7-Nov	16.5 8-Nov	15.2	12.3	13.5	13.6	6.5	3.1	4.4	5.9	5.3	5.0	5.0	5.1

⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

$\mathbf{OZONE}\text{ -} Continuous \ UV \ Light \ Absorption$

Parameter: 44201

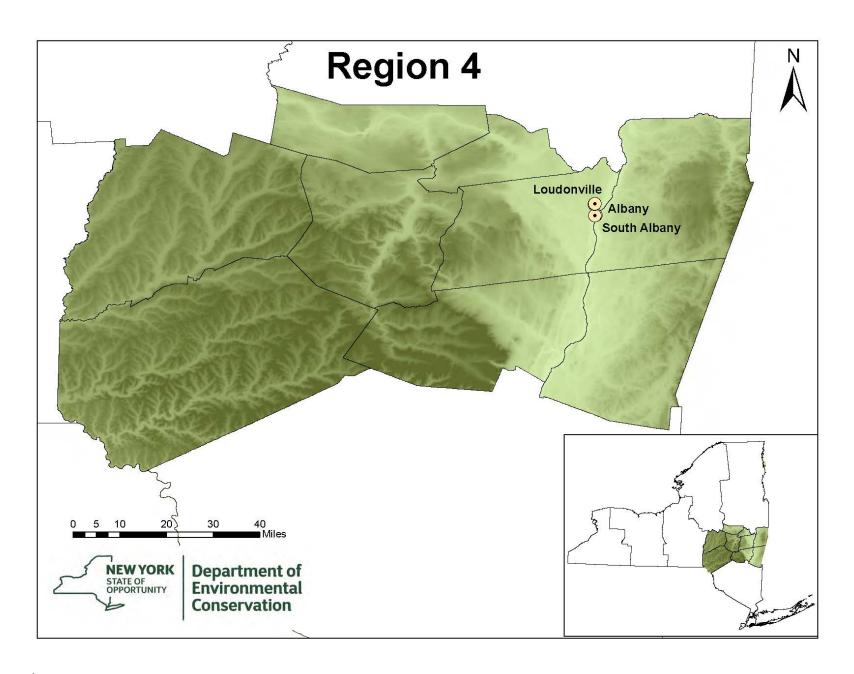
				8-hr R	unning Aver	age Begin Ho	our		4th Highes	st Daily Max	imum 8-Hou	r Average-
			Observat	tions	I	Daily Highest	t Values, PP	М	Not to exce		0.070 ppm du ears	iring the last
	Station Site No. Ob											
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.
W-ll Ctl	26 071 5001	225	96	0	0.062	0.061	0.06	0.058	0.064	0.058	0.059	0.060
Valley Central	36-071-5001	235	90	U	4-Jul	2-Aug	5-Jul	30-Mar	17-May	30-Mar	9-Jul	0.060
Daaldand Camba	26 007 0005	240	98	0	0.074	0.070	0.066	0.066	0.066	0.066	0.061	0.064
Rockland County	36-087-0005	240	98	U	4-Jul	5-Jul	16-Jul	16-Jul	18-May	13-Apr	1-Jun	0.064
White Plains	36-119-2004	240	98	1	0.072	0.070	0.070	0.069	0.072	0.078	0.069	0.073
white Plains	30-119-2004	240	90	1	30-Jul	16-Jul	29-Jul	22-Sep	10-Jun	28-Jul	22-Sep	0.073
Millhungle	36-027-0007	242	99	0	0.067	0.064	0.063	0.061	0.063	0.065	0.061	0.063
Millbrook	30-027-0007	242	99	U	11-Jul	5-Jun	22-Sep	30-Jul	10-Apr	10-Jul	30-Jul	0.063
Mt Nigham	26 070 0005	220	94	0	0.071	0.067	0.064	0.062	0.067	0.067	0.062	0.065
Mt. Ninham	36-079-0005	229	94	U	22-Sep	5-Jun	16-Jul	11-Jul	18-May	10-Jul	11-Jul	0.065

⁽Annual Means in parentheses are based on less than 75% available data)
*New York and Federal Ambient Air Quality Standard + Denotes a contravention of NYS/Federal AAQS

LEAD - Low Volume Air Samplers

Parameter: 14128

				24-1	Hour Conc	entrations -	- μg/m³			A Maximu	MONTH ROAVERAGES on not to exceed the second	eed 0.15
				Maxi	mum	2nd	Max.	3rd]	Max.	Highe	est Values, μ	g/m^3
Station	Total % Site No. Obs. Avail			Value	Date	Value	Date	Value	Date	2018	2019	2020
Wallkill	36-071-3002	92	75	.0839	07/02	.0432	07/29	.0241	09/15	0.01	0.01	0.01



SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB * (4))

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Loudonville	36-001-0012	2.33	1.92	0.97	2.03	1.61	1.3	0.36	0.21	0.03	0.17	0.2
Schenectady	36-093-0003	1.92	2.18	XX								
Grafton State Park	36-083-0004	1.12	1.13	0.76	XX							

Sampling at 4601-05 and 4153-04 was terminated on 06/30/11 and 12/31/12, respectively.

				One Hour	Averages				
		averaş	ge of 99 th pero	centile for las	t 3 years not	to exceed 75	PPB *		
		Observations 99th Percentile, PPB							
Station	Site No.	Total	%	2018	2019	2020	3-yr		
Station	Site No.	Obs.	Avail	2016	2019	2020	Avg.		
Loudonville	36-001-0012	8,641	99	2.1	3.4	1.9	2.47		

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years annual means not to exceed 12 μg/m3 *and average of 98th percentile for last 3 years not to exceed 35 μg/m³ *,)

		_			Maxim	um Value	$e^{\mathbf{s}}$, $\mu g/m^3$	98tl	h Perce	ntile, µչ	g/m ³	Qu		y Aver		Anı	nual M	ean, μg/	m ³
Station	EPA Param Code	EPA Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.
Albany Co. HD (FRM)	88101	145	36-001-0005	248	23.2 8-Nov	21.7 20-Dec	21.7 20-Dec	18.6	17.7	22.8	19.7	5.9	7.0	6.2	5.9	6.4	5.8	8.7	6.1
Albany Co. HD (FEM)	88101	236	36-001-0005	363	52.5 8-Nov	43.2 9-Nov	37.4 7-Nov	18.2	18.8	22.6	19.9	8.0	6.6	9.1	11.2	7.9	7.5	8.7	8.1
Loudonville (F)	88101	145	36-001-0012	117	20.2 20-Dec	13.4 31-Jan	12.2 11-Dec	16.2	13.4	12.2	13.9	4.9	4.6	5.8	4.5	5.8	5.1	4.9	5.3

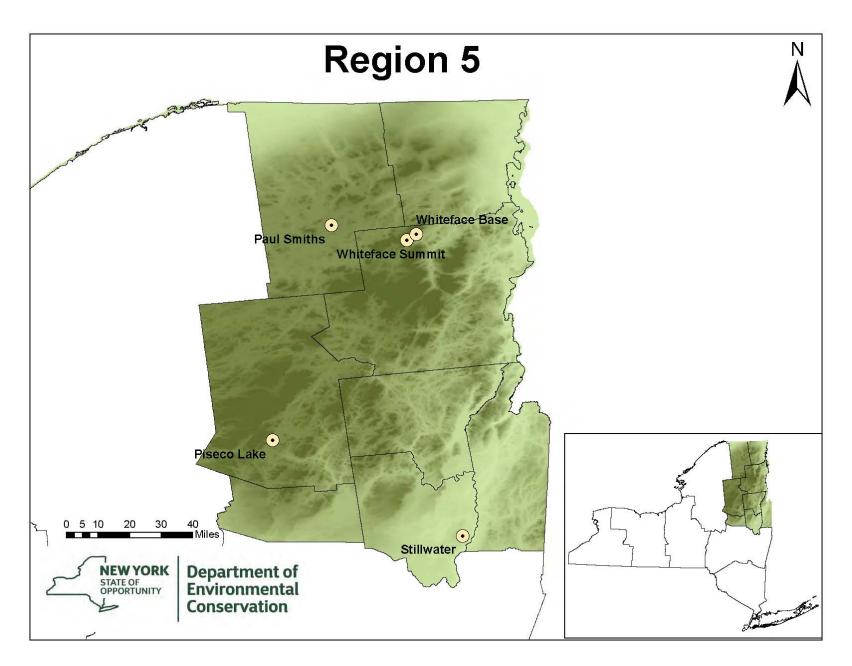
⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

$\mathbf{OZONE}\text{ -} Continuous \ UV \ Light \ Absorption$

Parameter: 44201

				8-hr	Running Avera	4th Highest Daily Maximum 8-Hour Average-								
		Observations			Da	aily Highest	Values, PPM	[Not to exceed an avg of 0.070 ppm during the last 3 years					
		Total	%	Days >.070										
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.		
Loudonville	26 001 0012	241	99	0	0.062	0.059	0.059	0.056	0.064	0.056	0.053	0.057		
Loudonville	udonville 36-001-0012 241 99 0				5-Jul	5-Jun	5-Jun	19-May	11-Apr	19-May	26-May	0.037		



SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB * (4))

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Whiteface Mtn Lodge	36-031-0003	0.72	0.73	0.67	0.36	0.38	0.47	0.26	0.18	0.18	0.13	0.14
Paul Smiths College	36-033-0004	0.57	0.67	0.5	0.52	0.6	0.32	0.2	0.28	0.11	0.17	XX
Piseco Lake	36-041-0005	0.34	0.32	0.14	0.17	0.21	0.16	0.05	0.03	0.03	0.05	0.03

1	i i i i i i i i i i i i i i i i i i i	<u> </u>		-J									
		One Hour Averages											
		avera	average of 99th percentile for last 3 years not to exceed 75 PPB										
		Obser	vations	99th Percentile, PPB									
Station	Site No.	Total	%	2018	2019	2020	3-yr						
Station	Site No.	Obs.	Avail	2010	2019	2020	Avg.						
Whiteface Mtn Lodge	36-031-0003	8,482	97	1	0.9	1.1	1.00						
Paul Smiths College	36-033-0004	XX	XX	1.1	1.1	XX	1.10						
Piseco Lake	36-041-0005	8,503	97	1	0.6	0.7	0.77						

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years= annual means not to exceed 12 μg/m3 *; and average of 98th percentile for last 3 years not to exceed 35 μg/m³ *)

					Maxim	Maximum Values, μg/m³				98th Percentile, μg/m ³				Quarterly Averages, 2020				Annual Mean, μg/m ³			
Station	EPA Param Code	EPA Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.		
Whiteface Base (F)	88101	145	36-031-0003	29	9.2 8-Jul	8.9 2-Jul	7.5 27-May	12.5	8.7	8.9	18	2.2	3.2	4.9	2.7	3.4	2.8	3.2	3.1		
Whiteface Base (C)	88502	702	36-031-0003	360	12.3 26-Sep	11.2 7-Nov	10.5 10-Oct	10.4	8.3	9.0	9.2	2.8	3.3	4.0	3.2	3.3	3.0	3.3	3.2		

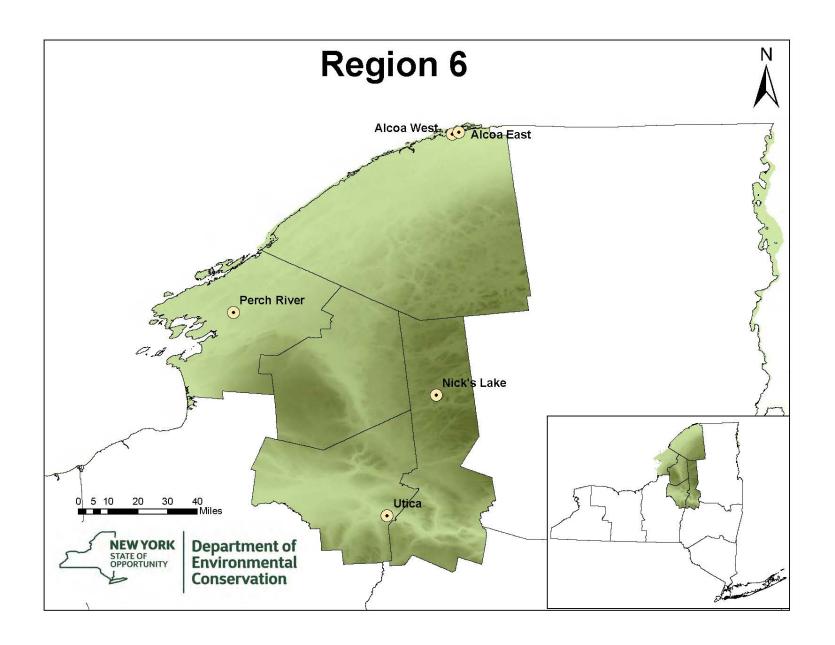
⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

$\mathbf{OZONE}\text{ -} Continuous \ UV \ Light \ Absorption$

Parameter: 44201

				8-hr I	Running Ave	rage Begin H	our		4th Highest Daily Maximum 8-Hour Average-					
		О	bservatio	ons	D	aily Highest	Values, PPN	Л	Not to exceed an avg of 0.070 ppm during the last 3 years					
		Total	%	Days >.070								Avg.		
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020			
G4'11 4	26 001 0004	221	0.5	0	0.057	0.057	0.056	0.054	0.06	0.067	0.054	0.060		
Stillwater	36-091-0004	231	95	0	30-Mar	30-Mar	28-Jun	14-Mar	17-May	9-May	14-Mar	0.060		
Whiteface Mtn. Summit	36-031-0002	236	97	0	0.064	0.063	0.062	0.062	0.067	0.069	0.062	0.066		
Willeface With. Summit	30-031-0002	230	91	U	5-Jun	30-Mar	29-Jun	29-Jun	16-Mar	1-May	29-Jun	0.000		
Whiteface Mtn. Base	36-031-0003	239	98	0	0.061	0.057	0.057	0.057	0.06	0.066	0.057	0.061		
willterace with. base	30-031-0003	239	90	U	30-Mar	28-Mar	28-Mar	28-Mar	15-Apr	2-May	28-Mar	0.061		
D' I I	26 041 0005	240	0.0	0	0.056	0.055	0.054	0.054	0.064	0.063	0.054	0.060		
Piseco Lake	36-041-0005	240	98	0	28-Jun	29-Jun	1-Jun	1-Jun	10-Apr	24-Apr	1-Jun	0.060		
M. M. I	26.070.0005	220	0.4	0	0.071	0.067	0.064	0.062	0.067	0.067	0.062	0.065		
Mt. Ninham	36-079-0005	229	94	0	22-Sep	5-Jun	16-Jul	11-Jul	18-May	10-Jul	11-Jul	0.065		



SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB * (4))

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Alcoa West	36-089-0004	XX	5.16	4	4.01	3.75						
Alcoa East	36-089-0005	XX	1.62	1.3	1.36	1.57						
Nick's Lake*	36-043-0005	0.54	0.48	0.65	0.6	0.67	0.52	0.2	0.16	0.12	0.28	xx

^{*36-043-0005} Closed in 2019 due to low concentrations and issues at the site.

			One Hour Averages average of 99th percentile for last 3 years not to exceed Observations 99th Percentile, PPI							
Station	Site No.	Total Obs.	% Avail	2018	2019	2020	3-yr Avg.			
Alcoa West*	36-089-0004	8,714	99	86.5	82.0	88.7	85.7			
Alcoa East*	36-089-0005	8,749	100	40.6	42.0	42.2	41.6			
Nick's Lake	36-043-0005	XX	XX	1.1	2.5	XX	1.8			

^{*}Alcoa East and Alcoa West are source oriented monitors established in 2017 to comply with the Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide Primary National Ambient Air Quality Standard (80 FR 51052) that requires that NYSDEC provide data to characterize the 1-hour ambient air concentration of SO2 in areas near the Alcoa Massena West Aluminum Plant.

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years= annual means not to exceed 12 μ g/m3 *; and average of 98th percentile for last 3 years not to exceed 35 μ g/m³ *, changed from 65 μ g/m³ on 12/17/06)

					Maximu	m Value	98th Percentile, μg/m ³				Quarterly Averages, 2020				Annual Mean, μg/m ³				
Station	EPA Param Code	Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.
Utica (C)	88502	702	36-065-2001	358	25.0 27-Aug	20.0 7-Nov	19.4 8-Nov	14.1	12.6	14.2	13.6	6.2	2.8	4.0	5.8	5.1	4.6	4.6	4.8

⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

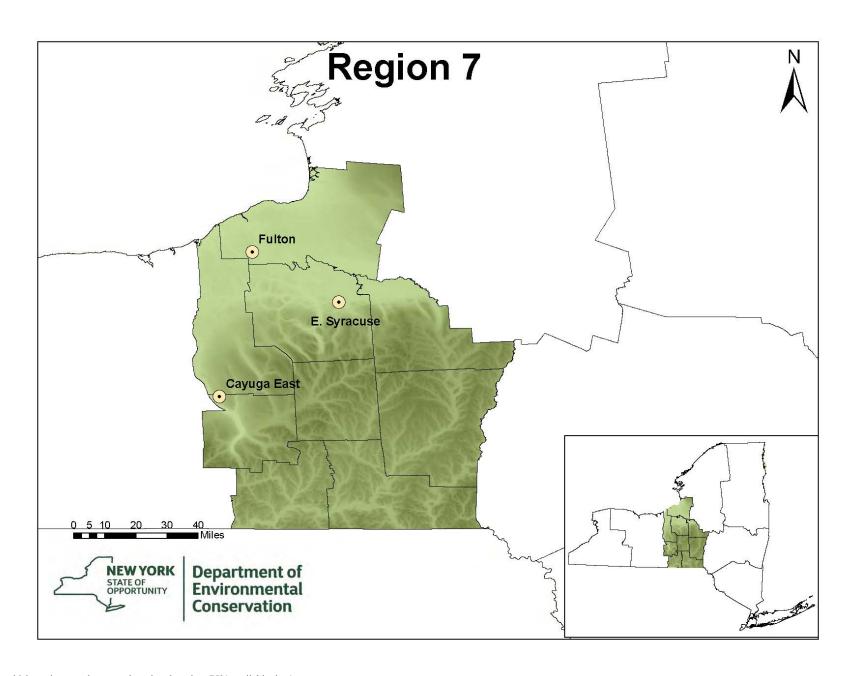
$\mathbf{OZONE}\text{ -} Continuous \ UV \ Light \ Absorption$

Parameter: 44201

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

			8	3-hr Running	Average Beg	gin Hour			4th Highes	at Daily Max	imum 8-Hou	ır Average-
		•	Observations		Ι	Daily Highest	Values, PPN	М	Not to exc	-	of 0.070 ppm years	during the
		Total	%	Days >.070								
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.
Nick's Lake	36-043-0005			0	XX	XX	XX	XX	0.057	0.048	XX	(0.052)
NICK S Lake	30-043-0003	XX	XX	U	XX	XX	XX	XX	10-Jun	1-Jun	XX	(0.052)
D 1 D'	26.045.0002	241	00	0	0.067	0.061	0.061	0.06	0.068	0.056	0.06	0.061
Perch River	36-045-0002	241	99	0	18-Jul	26-Jul	5-Jun	9-Jul	2-May	27-Jul	9-Jul	0.061

Sampling stopped at 2167-03 in December 31st 2019 due to no power being available at the site



SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB * (4))

							,					
Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Camp Georgetown	36-053-0006	1.09	0.52	0.34	XX	xx						
Cayuga East*	36-109-0002	XX	0.34	0.09	-0.03	xx						
East Syracuse	36-067-1015	0.92	0.88	0.54	0.61	0.70	0.60	0.40	0.35	0.26	0.12	0.16

Sampling at 2655-01 was suspended on 04/02/2012

		averaş	ge of 99 th perc	One Hour	_	to exceed 75	PPB *						
		average of 99 th percentile for last 3 years not to exceed 75 PPB * Observations 99 th Percentile, PPB											
		Total	%	2018	2019	2020	3-yr						
Station	Site No.	Obs.	Avail	2018	2019	2020	Avg.						
Cayuga East	36-109-0002	XX	XX	51.8	20.8	XX	xx						
East Syracuse	36-067-1015	8,539	97	2.2	0.9	0.9	1.33						

^{*}Cayuga East is a source-oriented monitor established in 2017 to comply with the Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide Primary National Ambient Air Quality Standard (80 FR 51052) that requires that NYSDEC provide data to characterize the 1-hour ambient air concentration of SO2 in areas near the Cayuga Operating Company Power Plant.

⁽Annual Means in parentheses are based on less than 75% available data)

^{*}New York and Federal Ambient Air Quality Standard + Denotes a contravention of NYS/Federal AAQS

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years= annual means not to exceed 15 μ g/m³*; and average of 98th percentile for last 3 years not to exceed 35 μ g/m³*, *changed* from 65 μ g/m³ on 12/17/06)

					Maxim	um Value	s, μg/m ³	981	h Perce	ntile, μg	g/m ³	Qua	rterly 2 202	,	ges,	An	nual M	ean, μg	$/m^3$
Station	EPA Param Code	EPA Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.
East Syracuse (FRM)	88101	145	36-067-1015	210	13.0	8.3	8.2	16.1	14.8	14.2	18.0	5.4	4.7	5.8	4.5	5.9	5.5	4.4	5.3
(FKWI)					28-Jan	23-Jun	9-Feb												
East Syracuse (FEM)	88101	236	36-067-1015	364	21.7	20.8	20.5	16.0	13.9	14.4	14.8	7.7	5.5	6.5	6.2	4.7	6.5	6.5	5.9
(FEWI)					25-Feb	1-Feb	26-Feb												

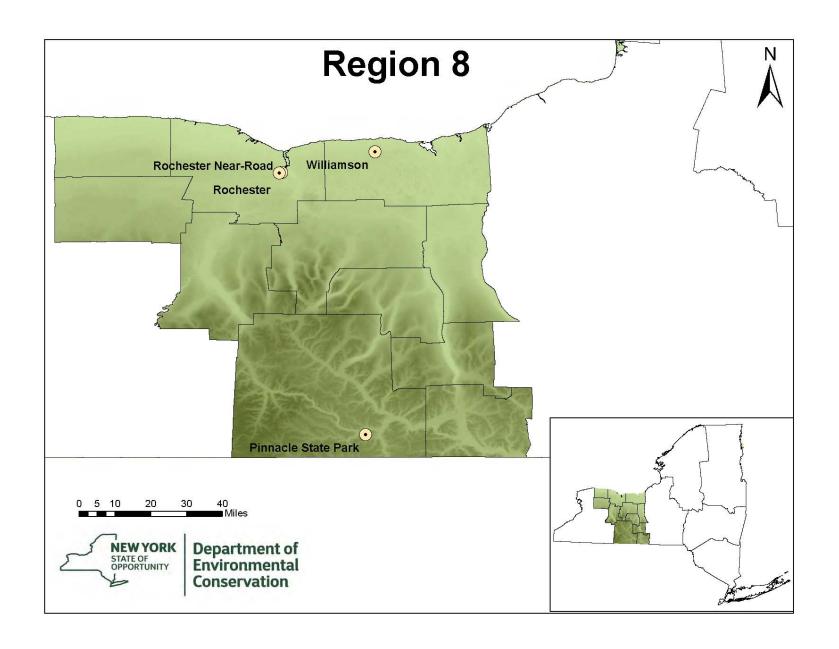
⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

$\mathbf{OZONE}\text{ -} Continuous \ UV \ Light \ Absorption$

Parameter:44201

				8-hr R	unning Avera	age Begin Ho	ur		4th Highest	t Daily Maxi	mum 8-Hou	r Average-
		•	Observa	tions	D	aily Highest	Values, PPM	1	Not to excee	ed an avg of 0 3 ye	0.070 ppm du ears	ring the last
	Total	%	Days >.070									
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.
East Syracuse	36-067-1015	243	100	0	0.062	0.061	0.06	0.058	0.066	0.058	0.058	0.060
Last Syracuse	30-007-1013	243	100	U	5-Jun	9-Jun	25-Sep	26-May	2-May	14-Mar	26-May	0.000
F-14 /C 1	26 075 0002	220	00	0	0.057	0.056	0.056	0.056	0.067	0.056	0.056	0.050
Fulton/Granby	36-075-0003	239	98	0	9-Jun	25-Sep	4-Jun	25-Sep	14-Jul	29-Jun	4-Jun	0.059



SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB * (4))

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Elmira	36-015-0003	2.08	1.65	1.48	XX							
Rochester	36-055-1007	2.19	1.15	0.99	0.91	0.96	0.79	0.68	0.49	0.23	0.17	0.11
Cayuga West*	36-099-0002	XX	0.11	0.09	0.23	XX						
Pinnacle	36-101-0003	0.63	0.71	0.39	0.39	0.45	0.33	0.21	0.13	0.13	0.07	0.02

Sampling was suspended at 0701-05 in 2013

				One Hour	Averages					
		averaş	ge of 99 th pero	centile for las	t 3 years not	to exceed 75	PPB *			
		Observations 99th Percentile, PPB								
Station	Site No.	Total	%	2018	2019	2020	3-yr			
Station	Site No.	Obs.	Avail	2018	2019	2020	Avg.			
Rochester	36-055-1007	8,642	99	7.5	2	1.5	3.67			
Cayuga West*	36-099-0002	XX	XX	2.4	1.9	XX	XX			
Pinnacle	36-101-0003	7,992	91	2	1.8	1.1	1.63			

^{*}Cayuga West is a source-oriented monitor established in 2017 to comply with the Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide Primary National Ambient Air Quality Standard (80 FR 51052) that requires that NYSDEC provide data to characterize the 1-hour ambient air concentration of SO2 in areas near the Cayuga Operating Company Power Plant.

⁽Annual Means in parentheses are based on less than 75% available data)

^{*}New York and Federal Ambient Air Quality Standard + Denotes a contravention of NYS/Federal AAQS

INHALABLE PARTICULATES (PM₁₀)

Parameter Code:81102

			2	24-Hour C	oncentrat	ions - μg/n	n^3		Not 1	to excee	d an exp	ected a	50 μg/r avg of or years *	ne per y	ear during
			Maxir	num	2nd	Max.	3rd M	ax.	20	18	201	9	20	20	
		Total													Exp.
Station	Site No.	Obs.	Value	Date	Value	Date	Value	Date	Mea	Est	Mea	Est	Mea	Est	Avg.
Rochester	36-055-1007	60	37.74	22-Jan	25.0	11-Dec	25.0	24-Sep	0	0	0	0	0	0	0

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years annual means not to exceed 12 μg/m3 *; and average of 98th percentile for last 3 years not to exceed 35 μg/m³)

					Maximu	m Value	es, μg/m ³	98th	Percei	ntile, µ	ıg/m³	Quarte	erly Av	erages,	2020	A	nnual	Mean,	μg/m ³
Station	EPA Param Code	Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1st	2nd	3rd	4th	2018	2019	2020	3-yr Avg.
Rochester Near Road (F)	88101	145	36-055-0015	54	19.1	14.6	13.8	19.3	15.7	13.8	16.3	6.4	4.9	6.5	5.8	7.3	6.6	5.9	6.6
					11-Dec	8-Nov	31-Jan												
Rochester Near Road	88502	702	36-055-0015	360	18.7	18.2	17.9	17.4	14.4	13.8	15.2	7.1	4.8	6.3	7.9	7.2	6.7	6.5	6.8
(C)					12-Dec	8-Nov	25-Sep												
Rochester 2 (F)	88101	145	36-055-1007	239	17.7	17.0	14.2	18.6	16.2	15.3	16.7	5.5	5.1	6.6	5.4	6.9	6.5	5.6	6.3
Rochester 2 (1)	00101	143	30-033-1007	237	11-Dec	8-Nov	5-Jul	10.0	10.2	13.3	10.7	3.3	J.1	0.0	J. T	0.7	0.5	5.0	0.5
Rochester 2 (C)	88101	236	36-055-1007	366	25.0	20.2	19.7	17.9	16.3	15.4	16.5	7.3	5.8	6.5	6.8	6.1	6.3	6.6	6.3
Rochester 2 (C)	88101	230	30-033-1007	300	12-Dec	8-Nov	11-Dec	17.9	10.5	13.4	10.5	7.5	5.0	0.5	0.6	0.1	0.5	0.0	0.5
Dimmoslo (E)	88101	145	36-101-0003	231	24.3	13.3	11.2	13.7	13.4	12.2	13.1	4.6	4.2	4.9	4.0	5.3	4.4	4.4	4.7
Pinnacle (F)	88101	143	30-101-0003	231	22-Jan	20-Dec	7-Jan	13./	13.4	12.2	13.1	4.0	4.2	4.9	4.0	3.3	4.4	4.4	4./
Dimmoolo (C)	00101	236	26 101 0002	347	25.3	17.6	16.5	12.2	13.1	12.1	12.8	6.1	5.0	5.9	6.0	1.5	6.1	5.7	5.5
Pinnacle (C)	88101		36-101-0003			11-Dec	20-Dec	13.2	13.1	12.1	12.8	6.1	3.0	3.9	0.0	4.5	0.1	5./	3.3

⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

CARBON MONOXIDE - Continuous Gas Filter Correlation

Parameter: 42101

				One-Hour	Average			Rur	ning 8-H	our Average	(Non-Overla	pping)
		Maximum	not to excee	ed 35 PPM mo	ore than one	ce per calenda	ar year *	Maxin	num not to	exceed 9 PP calendar ye	M more than ear *	once per
		0	bservations		Hig	hest Values,	PPM	Observ	ations	High	nest Values, l	PPM
		Total	%	>35					>9			Days>
Station	Site No.	Obs.	Avail	PPM	1	2	3	Total	PPM	1st	2nd	9PPM
Rochester 2	36-055-1007	8,621	98	0	1.07	1.06	1.03	8,533	0	0.90	0.90	0
Rochester 2	30-033-1007	6,021	90	U	9-Nov	11-Dec	12-Dec	6,555	U	12-Dec	12-Dec	U
Rochester Near-	36-055-0015	7,961	91	0	1.69	1.16	1.02	7,886	0	1.40	1.20	0
Road	30-033-0013	7,901	91	U	10-Jun	11-Jun	12-Dec	7,880	U	11-Jun	10-Jun	U
Dimma ala	36-101-0003	7 000	90	0	0.54	0.27	0.26	7.500	0	0.30	0.20	0
Pinnacle	30-101-0003	7,808	89	0	8-Aug	24-Jan	26-Feb	7,590	U	24-Jan	31-Dec	U

OZONE - Continuous UV Light Absorption

				8-hr Run	ning Average	e Begin Hour			4th Highes	t Daily Maxi	mum 8-Hou	r Average-
		(Observation	s	D	aily Highest	Values, PPN	1	Not to excee	_).070 ppm du ears	iring the last
		Total	%	Days >.070								
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.
D14 2	26.055.1007	252	1.45	0	0.064	0.063	0.062	0.061	0.071	0.059	0.061	0.062
Rochester 2	36-055-1007	353	145	0	8-Jul	7-Jul	18-Jul	9-Jun	25-May	6-May	9-Jun	0.063
D:1-	26 101 0002	351	144	0	0.055	0.055	0.054	0.053	0.064	0.054	0.053	0.057
Pinnacle	36-101-0003	331	144	U	3-May	25-Sep	17-Jun	24-Sep	23-Apr	9-Mar	24-Sep	0.037
W/:11:	26 117 2001	220	98	0	0.064	0.061	0.061	0.06	0.071	0.06	0.06	0.062
Williamson	36-117-3001	239	98	U	18-Jul	5-Jul	9-Jun	25-Sep	25-May	13-Apr	8-Jul	0.063

NITROGEN DIOXIDE - Continuous Chemiluminescence

Parameter: 42602

Annual Averages 2010 through 2020
Annual Arithmetic Mean (PPB) - Primary Standard (12-month average not to exceed 53 PPB *)

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Rochester Near-Road	36-055-0015	XX	XX	XX	XX	9.38	10.09	9.72	9.08	8.73	7.55	5.68

			One-Hour	Averages - a	verage of 98tl	h percentile f	or last 3 years	s not to excee	ed 75 PPB *	
		Obser	vations		98th Perce	entile, PPB		High	hest Values,	PPB
			%				3-yr			
Station	Site No.	Total	Avail	2017	2017 2019 2020		avg.	1st	2nd	3rd
D14 N D1	26.055.0015	7.210	92	25.0	20.0	20.0	24.0	37.4	36.9	35.5
Rochester Near-Road	36-055-0015	7,219	82	35.8	38.9	30.0	34.9	01/23 :06	01/23 :07	01/22 :19

LEAD -PM₁₀ Samplers Parameter: 85128

				THREE MONTH ROLLING AVERAGES Maximum not to exceed 0.15 μg/m³, effective beginning 1/1/13							AVERAGES Maximum not to excu µg/m³, effective beginn	
				Maxi	imum	2nd	Max.	3rd	Max.	High	nest Values,	$\mu g/m^3$
Station	Site No.	Total Obs.	% Avail	Value	Date	Value	Date	Value	Date	2018	2019	2020
Rochester	36-055-1007	58	95	.0073	09/24	.0070	12/11	.0055	01/22	0.0022	0.0017	.0026

SULFUR DIOXIDE - Continuous Pulsed Fluorescence

Parameter: 42401

Annual Averages 2010 through 2020

Annual Arithmetic Mean (ppb) - Primary Standard (12-month average not to exceed 30 PPB * (4))

Station	Site No.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Buffalo	36-029-0005	1.50	2.01	2.72	2.41	1.49	1.04	0.49	0.35	0.40	0.40	0.34
Brookside Terrace	36-029-1014	1.83	3.43	2.11	2.82	1.52	1.02	0.77	0.34	0.38	0.33	0.20
Dunkirk	36-013-0006	1.54	1.72	1.30	1.03	1.50	1.28	0.41	0.16	0.14	0.13	0.11
Niagara Falls	36-063-2008	1.53	2.74	3.47	XX							

Sampling was suspended at 1472-04 in 2007, and at 0675-01 and 3102-25 in 2013

		avera	ge of 99 th per	One Hour		to exceed 75	PPB *					
		Observations 99th Percentile, PPB										
Station	Site No.	Total Obs.	% Avail	2018	2019	2020	3-yr Avg.					
Buffalo	36-029-0005	8,522	97	7.1	13.4	16.4	12.3					
Brookside Terrace	36-029-1014	8,580	98	5	2.4	2.2	3.2					
Dunkirk	36-013-0006	8,494	97	3	3.2	2.5	2.9					

INHALABLE PARTICULATES (PM₁₀)

Parameter Code:81102

			24	4-Hour Cor	ncentratio	ons - μg/m	3		Not to	exceed a	an expe	ays > 1 cted avg ast 3 ye	g of one		r during the
			Maxi	Maximum 2nd Max. 3rd Max.				2018			2019		20		
		Total													Exp.
Station	Site No.	Obs.	Value	Date	Value	Date	Value	Date	Mea	Est	Mea	Est	Mea	Est	Avg.
Buffalo (R&P)	36-029-0005	58	29 27-May 27 22-Jan 26 11-Dec					11-Dec	0	0	0	0	0	0	0

INHALABLE PARTICULATES (PM2.5)

Comparison Between NYS Ambient Air Quality and Ambient Air Quality Standards for Calendar Year 2020

(Average of last 3 years annual means not to exceed 12 μg/m3 *; and average of 98th percentile for last 3 years not to exceed 35 μg/m³ *)

					Maxim	Maximum Values, μg/m ³		98th Percentile, μg/m ³			Quarterly Averages, 2020				Annual Mean, μg/m ³				
Station	EPA Param Code	Method Code	Site No.	Total Obs.	1 st	2 nd	3 rd	2018	2019	2020	3-yr Avg.	1 st	2 nd	3 rd	4 th	2018	2019	2020	3-yr Avg.
Buffalo (F)	88101	145	36-029-0005	58	33.8 5-Jul	25.1 8-Nov	18.7 11-Dec	19.4	16.8	18.7	18.3	6.0	6.3	7.9	6.0	7.5	7.0	6.5	7.0
Buffalo (C)	88502	702	36-029-0005	362	47.9 4-Jul	26.7 8-Nov	24.1 5-Jul	17.8	14.6	16.3	16.3	7.3	5.9	7.4	8.0	7.5	6.7	7.1	7.1
Grand Island Blvd (C)	88502	702	36-029-1013	xx	XX XX	XX XX	XX XX	19.5	14.2	xx	16.8	xx	XX	XX	XX	8.9	6.5	xx	7.7
Brookside Terrace (C)	88502	702	36-029-1014	365	19.9 5-Jul	18.6 8-Nov	16.6 7-Nov	17.5	14.1	13.2	14.9	6.3	4.5	6.2	7.2	7.3	6.7	6.1	6.7
Buffalo Near Road (C)	88502	702	36-029-0023	345	63.7 4-Jul	23.6 8-Nov	20.2 7-Nov	17.0	14.6	16.4	16.0	6.8	4.9	7.3	8.1	7.4	6.9	6.8	7.0
Buffalo Near Road (F)	88101	145	36-029-0023	57	37.7 5-Jul	22.5 8-Nov	18.2 11-Dec	17.8	14.9	18.2	17.0	6.5	6.2	8.3	6.2	7.6	7.6	6.8	7.3
Dunkirk (F)	88101	145	36-013-0006	58	13.2 24-Sep	12.8 8-Nov	12.3 24-Feb	17.2	13.8	12.3	14.4	5.1	5.1	6.7	4.0	6.6	6.6	5.2	6.1
Amherst (F)	88101	145	36-029-0002	86	58.1 5-Jul	19.8 8-Nov	14.2 31-Jan	17.8	14.8	14.2	15.6	5.3	5.4	7.6	4.7	6.9	6.9	6.0	6.6

⁽F) = Federal Reference Method or Federal Equivalent Method: Parameter Code: 88101

⁽C) = Continuous, used for AQI calculations. Values based on 24-hour averages of 1-hour values. Parameter Code 88502

⁽Annual Means in parentheses are based on less than 75% available data)

^{*}New York and Federal Ambient Air Quality Standard + Denotes a contravention of NYS/Federal AAQS

CARBON MONOXIDE - Continuous Gas Filter Correlation

Parameter:42101

				One-Hou	ır Average			Running 8-Hour Average (Non-Overlapping)						
		Maximum	not to ex	ceed 35 PPM	I more than o	once per calen	ıdar year	Maximu	ım not to	exceed 9 PP calendar ye	M more than ar *	once per		
		Obs	servation	ıs	Highest Values, PPM			Observa	tions	Higl	PPM			
		Total	%	>35					>9			Days>		
Station	Site No.	Obs.	Obs. Avail PPM			2nd	3rd	Total	PPM	1st	2nd	9PPM		
Buffalo	36-029-0005	7,776	89	0	1.40	1.00	1.00	7,809	0	1.00	1.00	0		
Bullaio	30-029-0003	7,770	89	U	9-Nov	11-Dec	11-Dec	7,809	U	10-Nov	10-Nov	U		
D. C. 1 - N 1	26,020,0022	0.240	18 05 0		1.49	1.34	1.21	9.220	0	1.00	0.90	0		
Buffalo Near-Road	36-029-0023	8,348	348 95 0		9-Nov	8-Nov	24-Oct	8,330	0	9-Nov	10-Nov	0		

$\mathbf{OZONE}\text{ -} Continuous \ UV \ Light \ Absorption$

Parameter: 44201

				8-hr Runnin	g Average B	egin Hour			4th Highes	t Daily Maxi	mum 8-Hou	r Average-
		(Observations		D	aily Highest	Values, PPM	ſ	Not to excee	ed an avg of 0 3 ye	1.1	ring the last
		Total	%	Days >.070								
Station	Site No.	Obs.	Avail	PPM	1st	2nd	3rd	4th	2018	2019	2020	Avg.
Dunkirk	36-013-0006	242	99	0	0.068	0.067	0.065	0.064	0.071	0.065	0.064	0.066
Duliklik	30-013-0000	272	99	U	7-Jul	2-Jun	3-Jul	9-Jun	26-May	26-Jun	9-Jun	0.000
A14	26,020,0002	214	88	0	0.070	0.067	0.066	0.066	0.069	0.063	0.066	0.066
Amherst	36-029-0002	214	88	U	7-Jul	2-Jun	8-Jul	8-Jul	24-May	28-Jun	8-Jul	0.066
Middleport	36-063-1006	239	98	0	0.066	0.065	0.065	0.064	0.069	0.059	0.064	0.064
Middleport	30-003-1000	239	90	0	9-Jul	7-Jul	9-Jun	8-Jul	25-May	10-Jul	8-Jul	0.004

NITROGEN DIOXIDE - Continuous Chemiluminescence

Parameter: 42602

Annual Averages 2010 through 2020

Annual Arithmetic Mean (PPB) - Primary Standard (12-month average not to exceed 53 PPB *)

Station	Site No.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2019	2020
Buffalo Near-Road	36-029-0023	XX	XX	XX	XX	XX	9.95	12.48	10.78	9.49	9.11	7.06
Buffalo	36-029-0005	13.88	13.00	12.52	10.46	10.38	8.73	11.10	9.90	9.60	9.47	7.56
Amherst	36-029-0002	7.42	8.19	8.32	6.44	XX	XX	XX	XX	XX	XX	XX

Sampling at 1451-03 was suspended 12/31/12.

			One-Hour A	verages - ave	rage of 98th p	percentile for	last 3 years	not to excee	ed 75 PPB *		
		Observ	vations		98th Percer	itile, PPB		Highest Values, PPB			
Station	Site No.	Total	% Avail	2018	2019	2020	3-yr avg.	1st	2nd	3rd	
Buffalo Near-Road	36-029-0023	6,290	72	41	45	36.9	41.0	43.5 02/23 :18	40.6 03/01 :02	40.3 02/12 :21	
Buffalo	36-029-0005	8,428	96	47.2	51	39.6	45.9	47.1 03/01 :03	46.8	43.4	