

National Ambient Air Quality Standards - Primary

Pollutant	Averaging Time	Year Established or Revised	Level	Compliance Test
Nitrogen Dioxide (NO ₂)	Annual	1971	53 ppb	A site meets the annual NO ₂ standard if the annual average NO ₂ concentration is less than or equal to 53 ppb.
	1-Hr	2010	100 ppb	A site meets the 1-Hr NO ₂ standard if the 3-year average of the annual 98th percentile 1-Hr NO ₂ concentration is less than or equal to 100 ppb.
Sulfur Dioxide (SO ₂)	Annual	1971	30 ppb	A site meets the annual SO ₂ standard if the annual average SO ₂ concentration is less than or equal to 30 ppb. This standard was rescinded by EPA in 2010.
	24-Hr	1971	140 ppb	A site meets the 24-Hr SO ₂ standard if the 2nd highest 24-hour SO ₂ concentration at a site is less than or equal to 140 ppb. EPA rescinded the 24-Hr SO ₂ standard in 2010.
	1-Hr	2010	75 ppb	A site meets the 1-Hr SO ₂ standard if three-year average of the annual 99th percentile 1-HR SO ₂ concentration is less than or equal to 75 ppb.
Carbon Monoxide (CO)	8-Hr	1971	9 ppm	A site meets the 8-Hr CO standard if the 2nd highest daily maximum non-overlapping 8-Hr CO concentration is less than or equal to 9 ppm.
	1-Hr	1971	35 ppm	A site meets the 1-Hr CO standard if the 2nd highest 1-hr CO concentration is less than or equal to 35 ppm.
Ozone (O ₃)	8-Hr	2008	75 ppb	A site meets the 8-Hr O ₃ standard if the 3-year average of the 4th-daily maximum 8-hr O ₃ concentration is less than or equal to 75 ppb.
Fine Particulate (PM _{2.5})	Annual	2012	12 ug/m ³	A site meets the annual PM _{2.5} standard if the 3-year average of the quarterly weighted annual average PM _{2.5} concentration is less than or equal to 12 ug/m ³ .
	24-Hr	2006	35 ug/m ³	A site meets the 24-Hr PM _{2.5} standard if the 3-year average of the annual 98th percentile daily PM _{2.5} concentration is less than or equal to 35 ug/m ³ .
Lead (Pb)	Rolling Quarter	2008	0.15 ug/m ³	A site meets the lead standard if the maximum rolling quarter average lead concentration does not exceed 0.15 ug/m ³ over a 3-year period.
PM ₁₀	24-Hr	1987	150 ug/m ³	A site meets the 24-Hr PM ₁₀ standard if the 3-year average of the estimated number of daily concentrations greater than the level of the standard is less than 1.

Minnesota Ambient Air Quality Standards -Primary

Pollutant	Averaging Time	Year Established or Revised	Level	Compliance Test
PM ₁₀	Annual	1987	50 ug/m ³	A site meets the annual PM ₁₀ standard if the annual average PM ₁₀ concentration is less than or equal to 50 ug/m ³ .
TSP	Annual	1971	75 ug/m ³	A site meets the annual TSP standard if the annual average TSP concentration is less than or equal to 75 ug/m ³ . Secondary standard is 60 ug/m ³ .
	24-Hour		260 ug/m ³	A site meets the 24-hour TSP standard if the 2nd maximum concentration is less than or equal to 260 ug/m ³ . Secondary standard is 150 ug/m ³ .

Updated September 19, 2014 by

[Cassie McMahon](#)

218-302-6600

1-Hr CO

A site meets the 1-Hr CO standard if the 2nd highest 1-hr CO concentration is less than or equal to 35 ppm.

AQSID	Site Name	2012	2013	Standard
271370018	Duluth (7526)	1.6	4.6	35
270370020	FHR 420	0.3	0.7	35
270370423	FHR 423	1.2	3.3	35
270530954	Minneapolis (954)	2.3	1.4	35
270530962	Minneapolis (962)		1.6	35
271230050	St. Paul (861)	3.4	2.4	35

8-hr CO

A site meets the 8-Hr CO standard if the 2nd highest non-overlapping 8-Hr CO concentration is less than or equal to 9 ppm.

	Site Name	2012	2013	Standard
271370018	Duluth (7526)	0.6	1.5	9
270370020	FHR 420	0.3	0.5	9
270370423	FHR 423	1.0	2.5	9
270530954	Minneapolis (954)	1.1	0.7	9
270530962	Minneapolis (962)		0.8	9
271230050	St. Paul (861)	1.5	1.1	9

A site meets the lead standard if the maximum rolling 3-month average lead concentration does not exceed 0.15 ug/m3 over a 3-year period.

Lead (Rolling Quarter)

AQSID	Site Name	2010-2012	2011-2013	Standard	Notes
270036020	Anoka (6020)*	0.038	0.040	0.15	Closed June 2013
270370470	Apple Valley (470)	0.002	0.004	0.15	
271630446	Bayport (446)	0.001	0.003	0.15	
270031002	Blaine (6010)*	0.012	0.021	0.15	2 Yrs
271377555	Duluth (7555)	0.005	0.005	0.15	
270370465	Eagan (465)	0.259	0.111	0.15	
270370020	FHR 420	0.013	0.012	0.15	
270531007	Minneapolis (907)*		0.005	0.15	2 yrs
370530963	Minneapolis (963)	0.004	0.005	0.15	
270530966	Minneapolis (966)	0.016	0.006	0.15	
271630438	Northern Tier Energy (438)	0.005	0.006	0.15	
271453053	St. Cloud (3053)*	0.008	0.009	0.15	Closed June 2013
271230871	St. Paul (871)	0.007	0.007	0.15	
271377001	Virginia (1300)	0.008	0.008	0.15	

* Design value is based on less than 3-years of complete monitoring data

A site meets the 1-Hr NO2 standard if the 3-year average of the annual 98th percentile 1-Hr NO2 concentration is less than or equal to 100 ppb.

NO2 1-Hr (ppb)

AQSID	Site Name	2010-2012	2011-2013	Standard
270031002	Blaine (6010)	46	43	100
270370020	FHR 420	46	44	100
270370423	FHR 423	33	29	100

A site meets the annual NO2 standard if the annual average NO2 concentration is less than or equal to 53

NO2 Annual (ppb)

AQSID	Site Name	2012	2013	Standard
270031002	Blaine (6010)	8	7	53
270370020	FHR 420	11	9	53
270370423	FHR 423	5	5	53

8-Hr Ozone (ppb) A site meets the 8-Hr O₃ standard if the 3-year average of the 4th-daily maximum 8-hr O₃ concentration is less than or equal to 75 ppb.

AQS ID	Site Name	2008-2010	2009-2011	2010-2012	2011-2013	Notes	Standard
270031002	Blaine (6010)	62	65	67	67		75
270353204	Brainerd (3204)	60	61	62	62		75
270177416	Cloquet (7416)	56	54	55	56		75
270052013	Detroit Lakes (2013)	59	59	61	61		75
271377550	Duluth (7550)	52	49	50	50		75
270031001	East Bethel (6012)	61	63	67	67		75
270750005	Ely (7001)	59	58	59	58		75
27-163-6016	Marine on St. Croix (6016)*				63	Only 2 years of Data in 2013. Incomplete for NAAQS Determination	75
270834210	Marshall (4210)	62	63	64	65		75
270953051	Mille Lacs (3051)	57	59	60	60		75
271095008	Rochester (5008)	60	60	63	64		75
271390505	Shakopee (505)	60	60	62	65		75
271453052	St. Cloud (3052)	56	58	61	62		75
271713201	St. Michael (3201)	60	62	64	63		75
270495302	Stanton (5302)	60	60	62	63		75
271370034	Voyageurs	62	62	63	59		75

2nd maximum PM10 concentration must not exceed 150 ug/m3. A site meets the standard if the estimated number of exceedances averaged over 3-years is less than 1.

PM10 24-HR

AQSID	Site Name	2012	2013	Standard	Estimated Exceedances 2013
270031002	Blaine (6010)	60	49	150	0
271370032	Duluth (7545)	50	57	150	0
270530966	Minneapolis (966)	37	36	150	0
271230866	St. Paul (866)	55	57	150	0
271230868	St. Paul (868)	67	58	150	0
271377001	Virginia (1300)	24	35	150	0

PM10 Annual

NO FEDERAL STANDARD - MAAQS = 50 ug/m3

AQSID	Site Name	2012	2013	Standard
270031002	Blaine (6010)	19	17	50
271370032	Duluth (7545)	21	23	50
270530966	Minneapolis (966)	20	19	50
271230866	St. Paul (866)	26	27	50
271230868	St. Paul (868)	25	22	50
271377001	Virginia (1300)	12	13	50

A site meets the 24-Hr PM2.5 standard if the 3-year average of the annual 98th percentile daily PM2.5 concentration is less than or equal to 35 ug/m3.

PM2.5 Daily

AQSID	Site Name	2008-2010	2009-2011	2010-2012	2011-2013	Standard
270370470	Apple Valley (470)	31	31	25	22	35
270031002	Blaine (6010)			23	22	35
271377550	Duluth (7550)	21	19	17	18	35
270834210	Marshall (4210)				20	35
270530963	Minneapolis (963)	31	30	25	23	35
271095008	Rochester (5008)	31	30	25	22	35
271390505	Shakopee (505)	29	28	25	22	35
271453052	St. Cloud (3052)	26	27	24	22	35
270532006	St. Louis Park (250)	29	28	25	23	35
271230868	St. Paul (868)	36	34	28	24	35
271230871	St. Paul (871)	37	33	27	22	35
271377001	Virginia (1300)	17	17	15	16	35

A site meets the annual PM2.5 standard if the 3-year average of the quarterly weighted annual average PM2.5 concentration is less than or equal to 12 ug/m3.

PM2.5 Annual

AQSID	Site Name	2008-2010	2009-2011	2010-2012	2011-2013	Standard
270370470	Apple Valley (470)	9.6	9.2	9	8.4	12
270031002	Blaine (6010)			8.5	8.2	12
271377550	Duluth (7550)	6.1	5.8	5.5	5.7	12
270834210	Marshall (4210)				7.1	12
270530963	Minneapolis (963)	9.7	9.5	9	8.4	12
271095008	Rochester (5008)	9.7	9.6	9	8.5	12
271390505	Shakopee (505)	9.3	8.8	8.6	8.5	12
271453052	St. Cloud (3052)	8.6	8.6	8.5	7.9	12
270532006	St. Louis Park (250)	9.5	9	8.8	8.8	12
271230868	St. Paul (868)	10.6	10	9.7	9.8	12
271230871	St. Paul (871)	10.1	9.6	9.1	8.7	12
271377001	Virginia (1300)	5.6	5.4	5.3	6.1	12

A site meets the 1-Hr SO₂ standard if three-year average of the annual 99th percentile 1-Hr SO₂ concentration is less than or equal to 75 ppb.

SO₂ 1-HR

ppb

	2010-2012	2011-2013	Standard
FHR 420	17	14	75
FHR 423	10	8	75
FHR 442	3	3	75
FHR 443	3.3	2	75
Minneapolis (954)	14	9	75
Saint Paul Park (436)	11	10	75

A site meets the 24-Hr SO₂ standard if the 2nd highest 24-hour SO₂ concentration at a site is less than or equal to 140 ppb. EPA rescinded the 24-Hr SO₂ standard in 2010.

SO₂ 24-HR

ppb

	2012	2013	Standard
FHR 420	4.2	4	140
FHR 423	2.5	3	140
FHR 442	1.5	1	140
FHR 443	1.3	1	140
Minneapolis (954)	2.4	15	140
Saint Paul Park (436)	2.3	3	140

A site meets the annual SO₂ standard if the annual average SO₂ concentration is less than or equal to 30 ppb. This standard was rescinded by EPA in 2010.

SO₂-Annual

ppb

	2012	2013	Standard
FHR 420	0.65	0.7	30
FHR 423	0.75	0.6	30
FHR 442	0.26	0.6	30
FHR 443	0.18	0.4	30
Minneapolis (954)	0.21	0.9	30
Saint Paul Park (436)	0.49	0.6	30

SO2 - 3HR

ppb

A site meets the 3-Hour SO2 standard if the 2nd highest non-overlapping 3-hour concentration is less than 500 ppb.

	2012	2013	Standard	Secondary
FHR 420	10.0	10.0	500	350
FHR 423	6.0	5.6	500	350
FHR 442	3.0	21.3	500	350
FHR 443	1.6	2.0	500	350
Minneapolis (954)	6.3	17.3	500	350
Saint Paul Park (436)	6.6	9.6	500	350

Primary MAAQS = 260 ug/m3

Secondary MAAQS = 150 ug/m3

TSP 24-HR

2nd High 24-hour TSP Concentration

AQSID	Site Name	2012	2013	Secondary Standard
270370470	Apple Valley (470)	68	76	150
271630446	Bayport (446)	54	53	150
270031002	Blaine (6010)	63	64	150
271377555	Duluth (7555)	130	75	150
270370465	Eagan (465)	104	78	150
270370020	FHR 420	105	98	150
270530963	Minneapolis (907)	81	68	150
270530966	Minneapolis (963)	72	65	150
270531007	Minneapolis (966)	77	69	150
271630438	Newport (438)	107	102	150
271230871	St. Paul (871)	66	69	150
271377001	Virginia (1300)	79	99	150

Primary MAAQS = 75 ug/m3

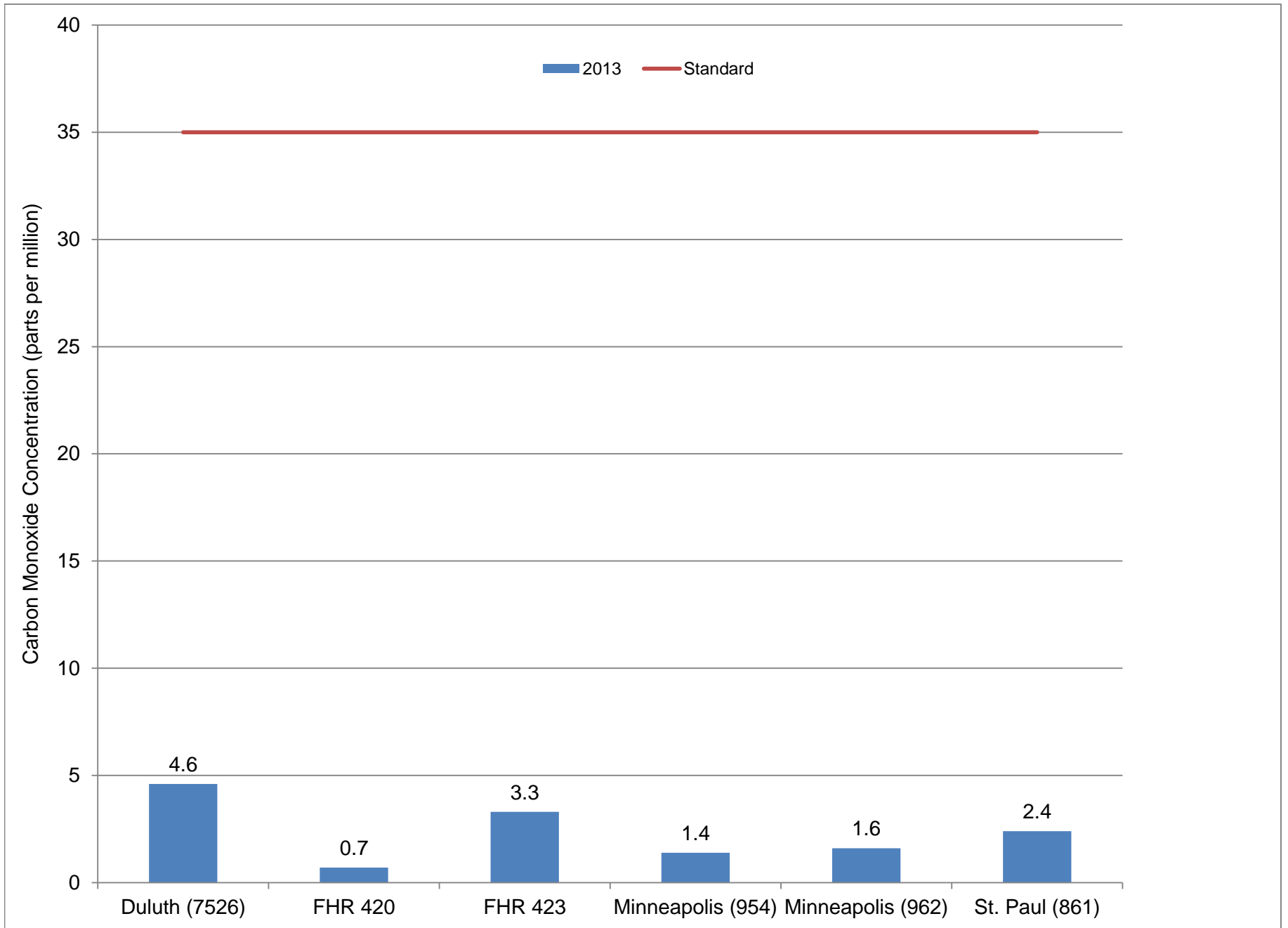
Secondary MAAQS = 60 ug/m3

TSP Annual

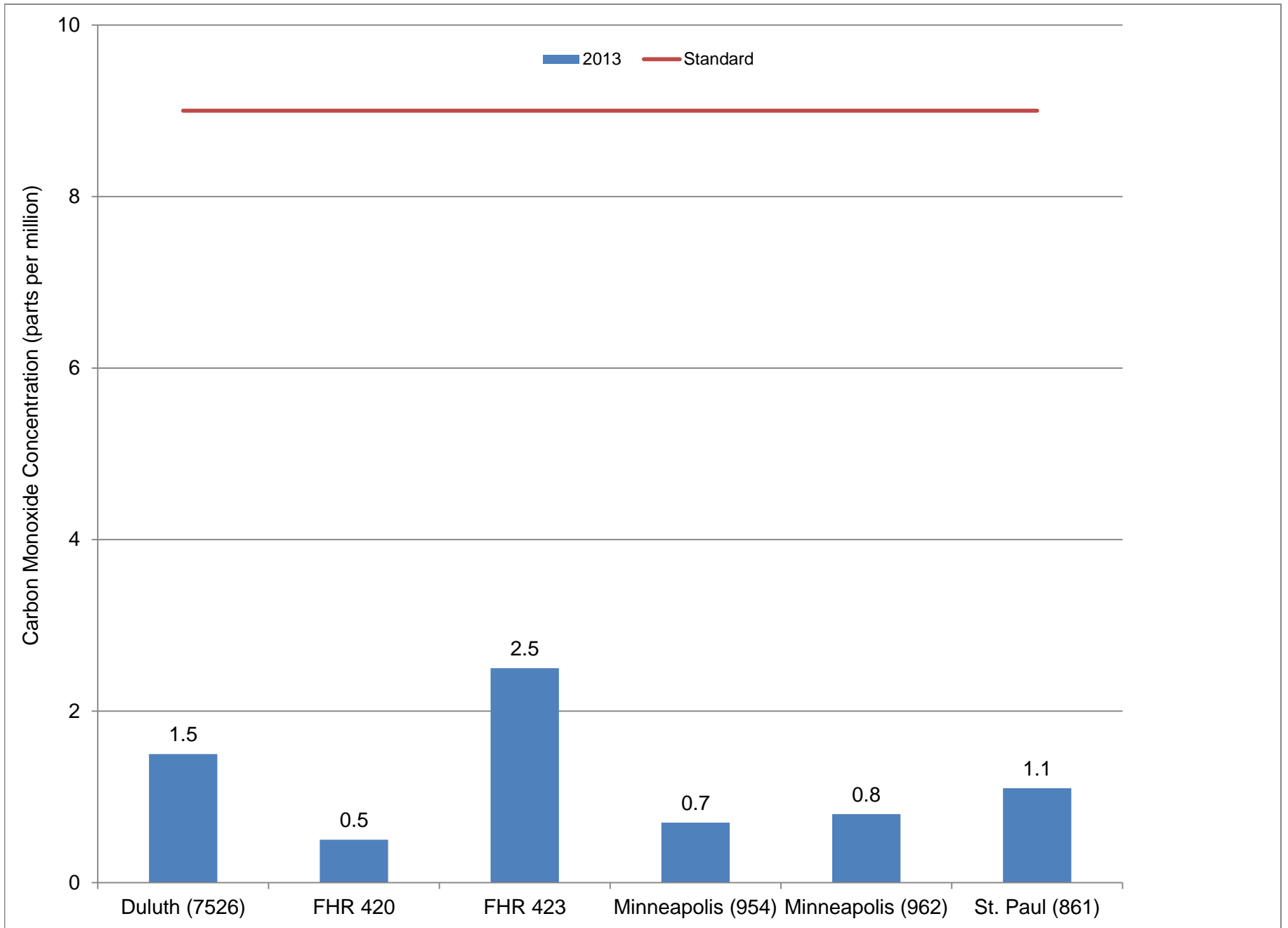
Annual Geometric Mean (ug/m3)

AQSID	Site Name	2012	2013	Secondary Standard
270370470	Apple Valley (470)	31	21	60
271630446	Bayport (446)	26	19	60
270031002	Blaine (6010)	27	20	60
271377555	Duluth (7555)	50	32	60
270370465	Eagan (465)	44	29	60
270370020	FHR 420	48	40	60
270530963	Minneapolis (907)	39	31	60
270530966	Minneapolis (963)	33	24	60
270531007	Minneapolis (966)	37	30	60
271630438	Newport (438)	38	28	60
271230871	St. Paul (871)	31	23	60
271377001	Virginia (1300)	31	28	60

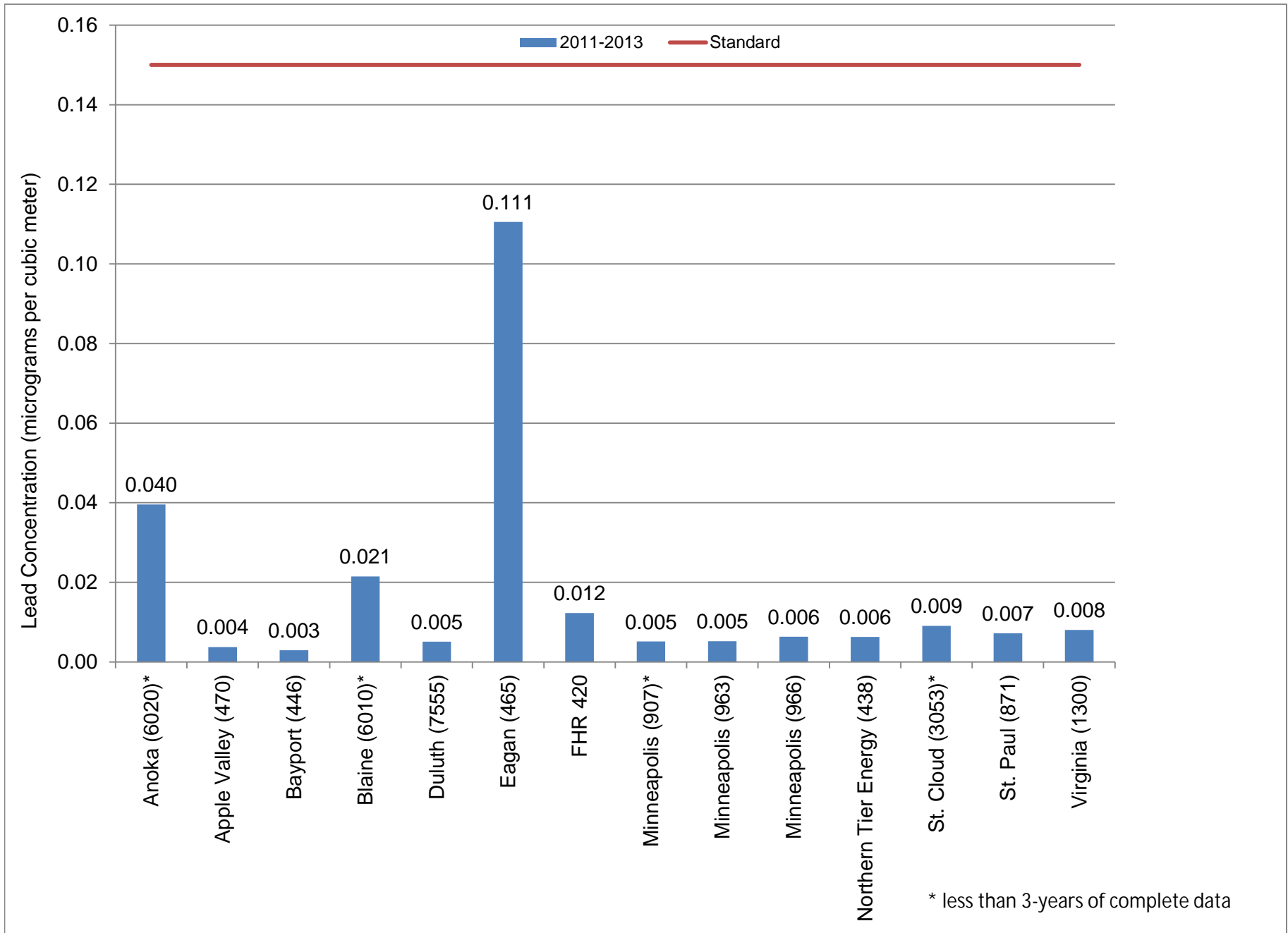
2013 CO 1-HR



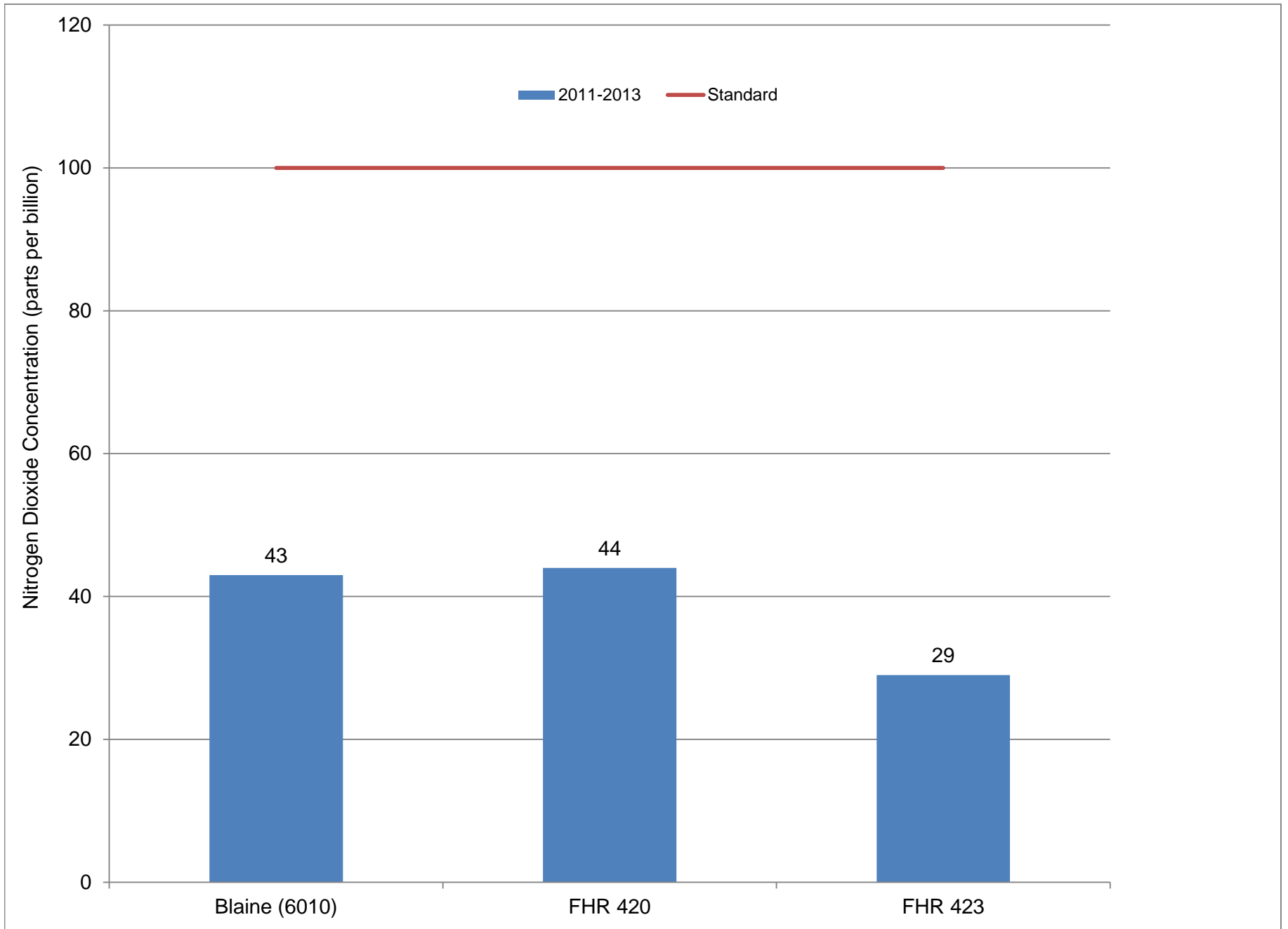
2013 CO 8-HR



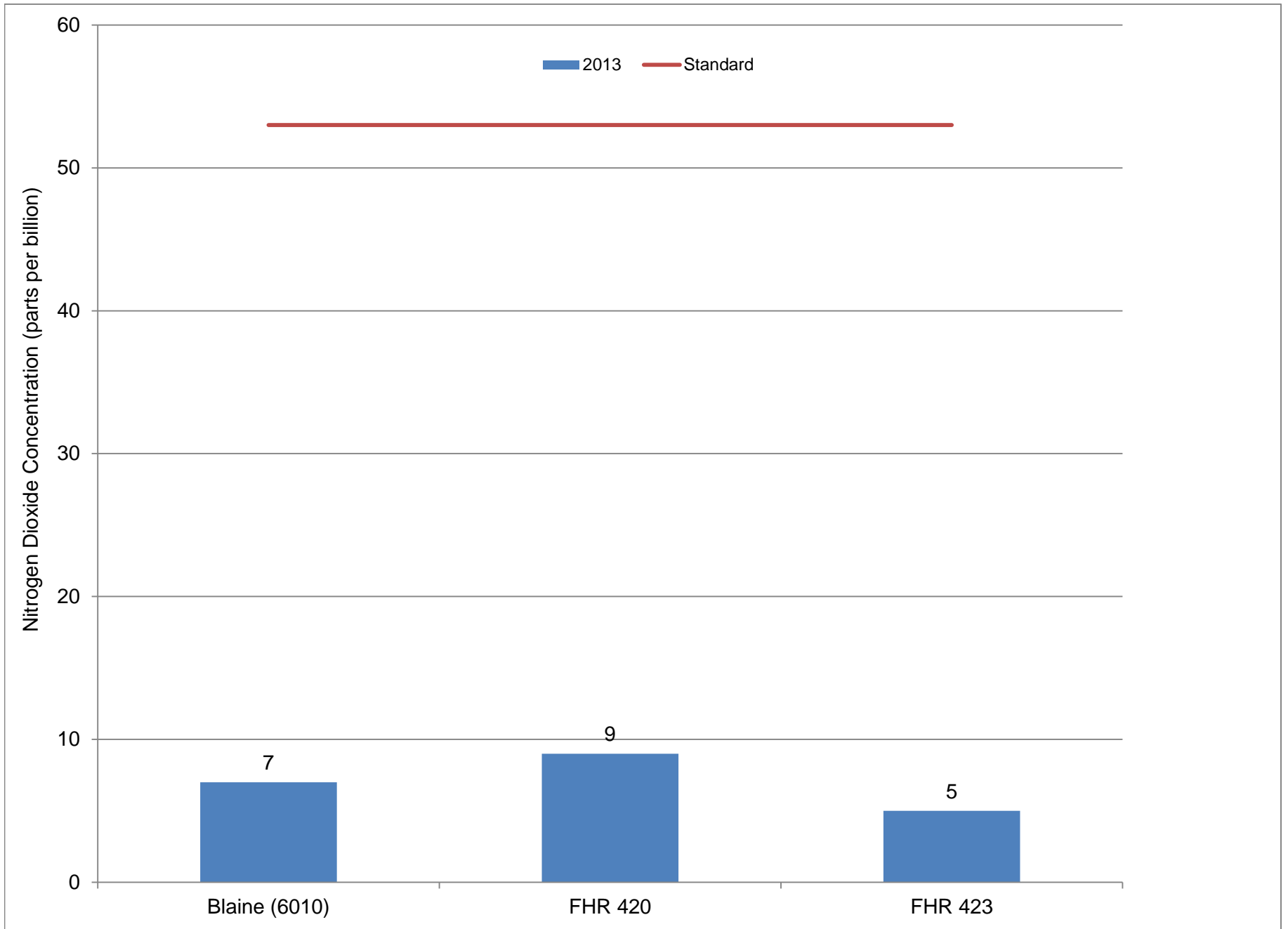
2011-2013 Lead



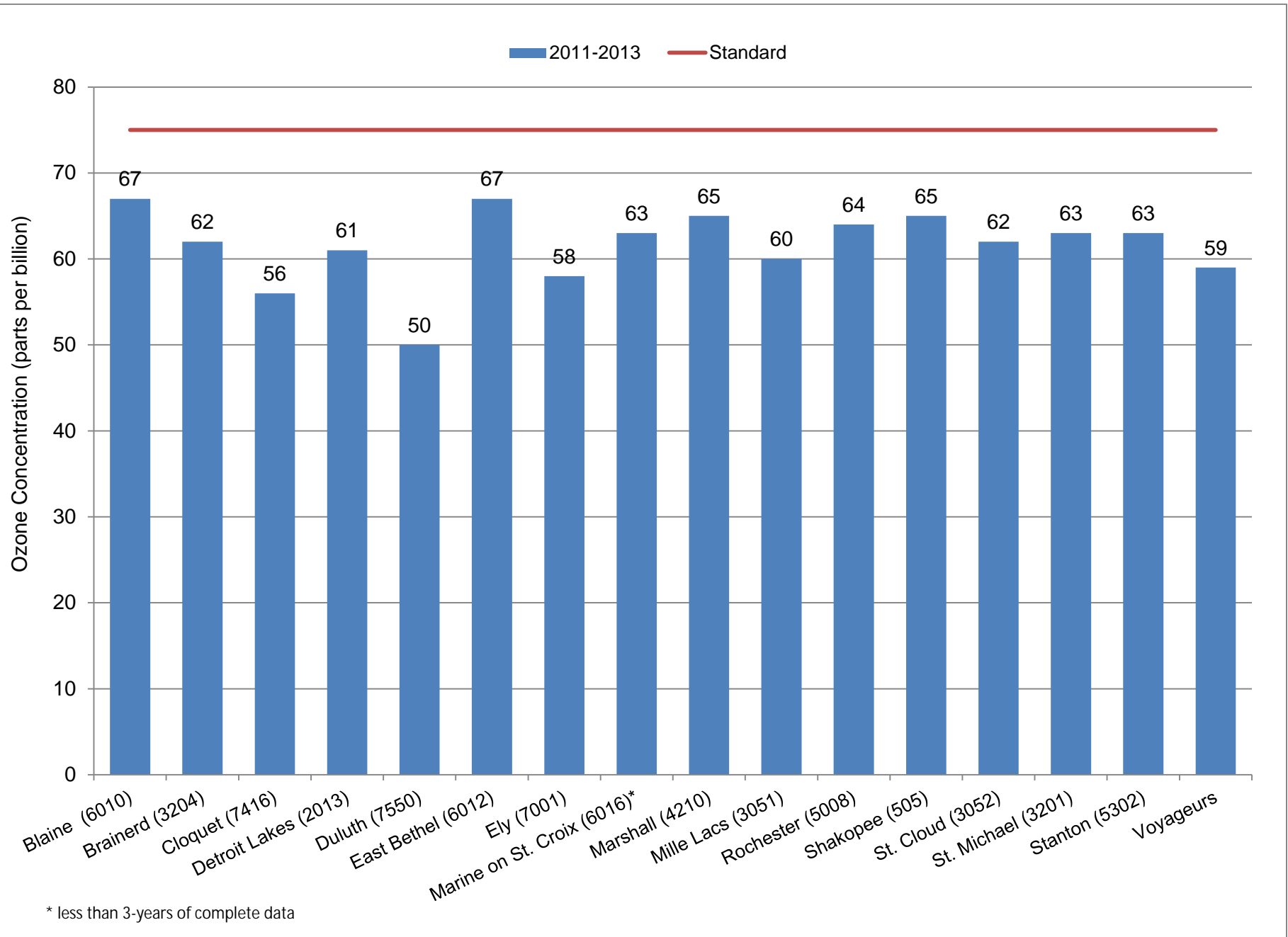
2011-2013 NO2 1-HR



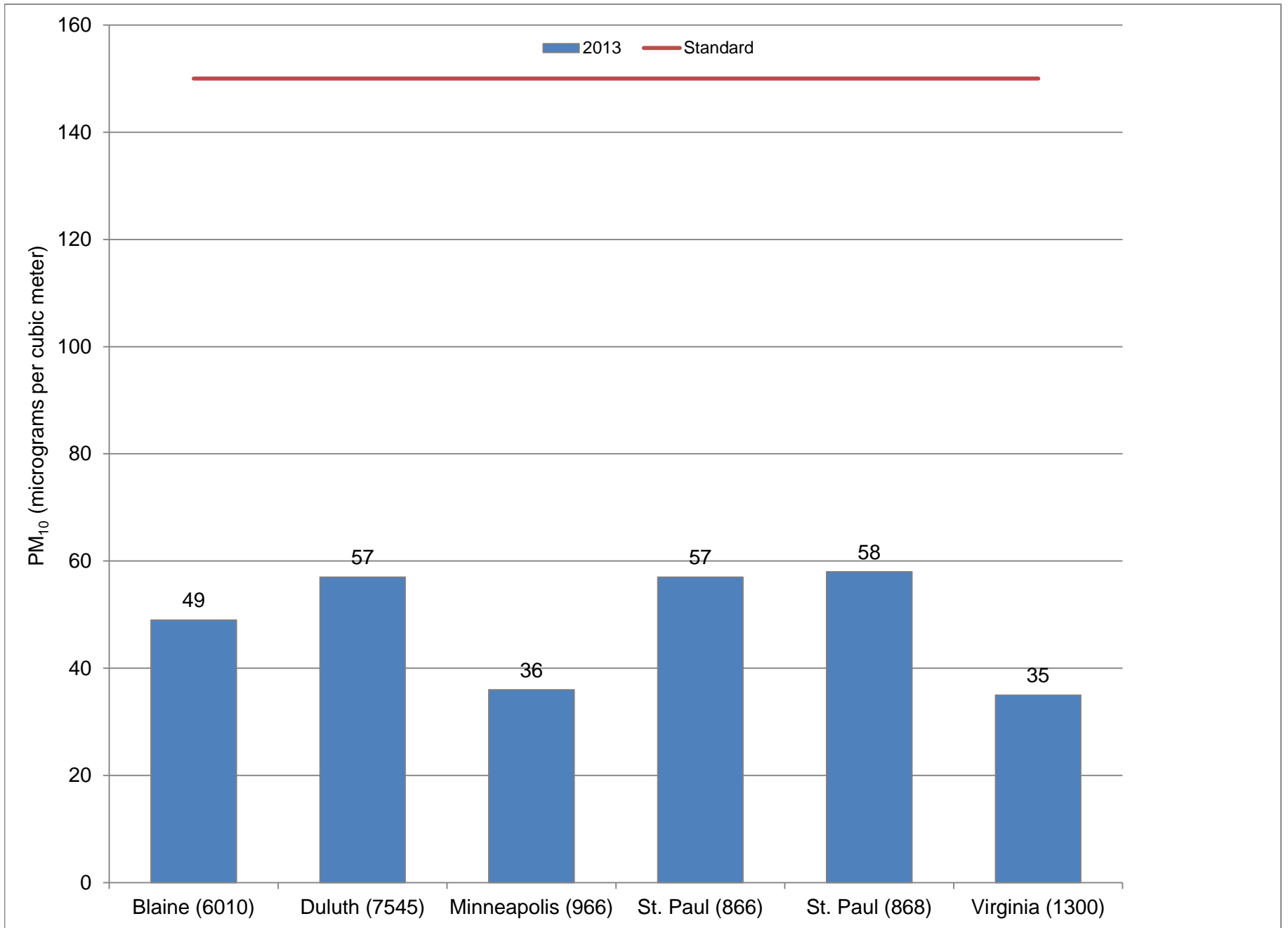
2013 NO2 Annual



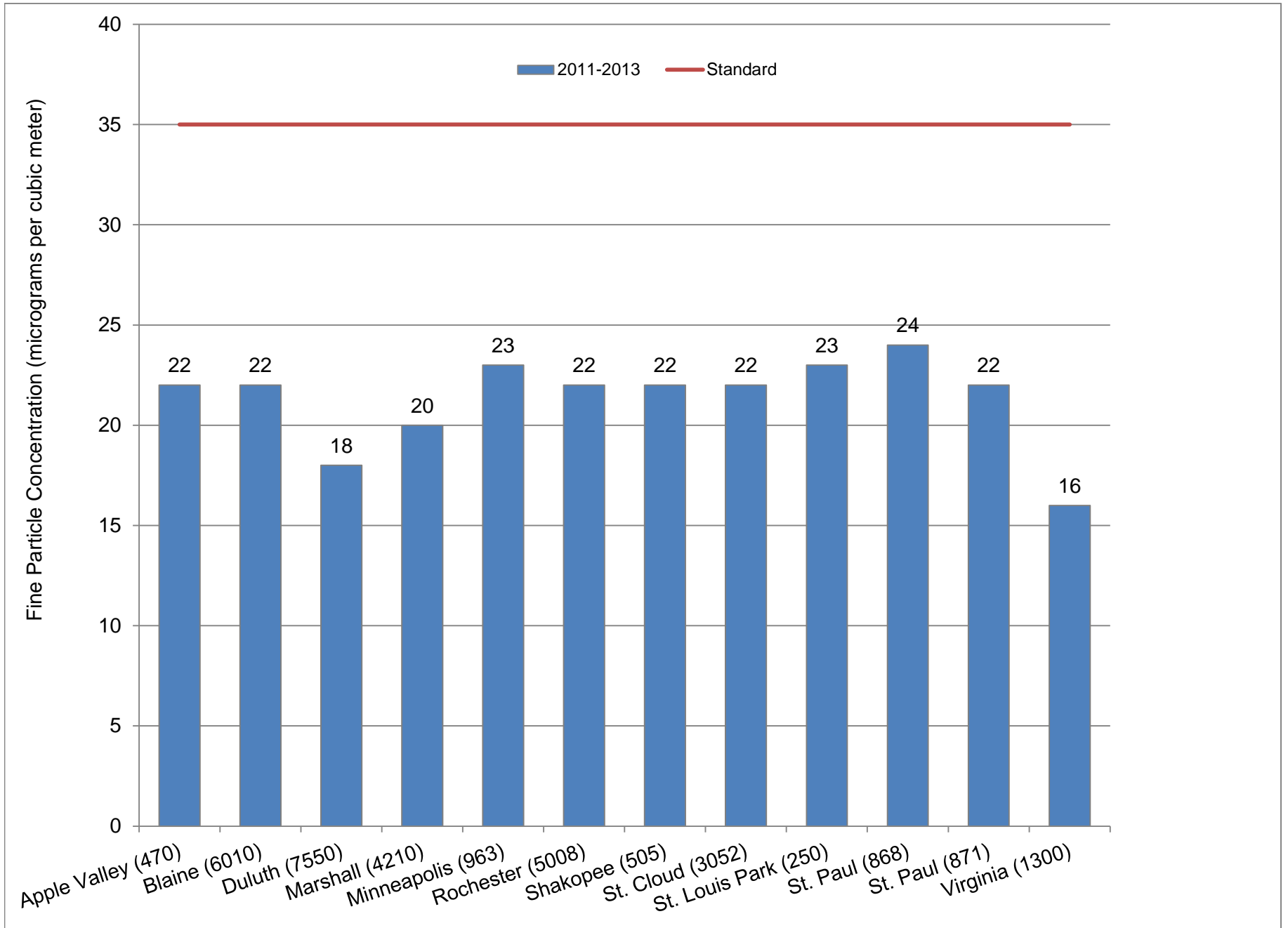
2011-2013 Ozone 8-HR



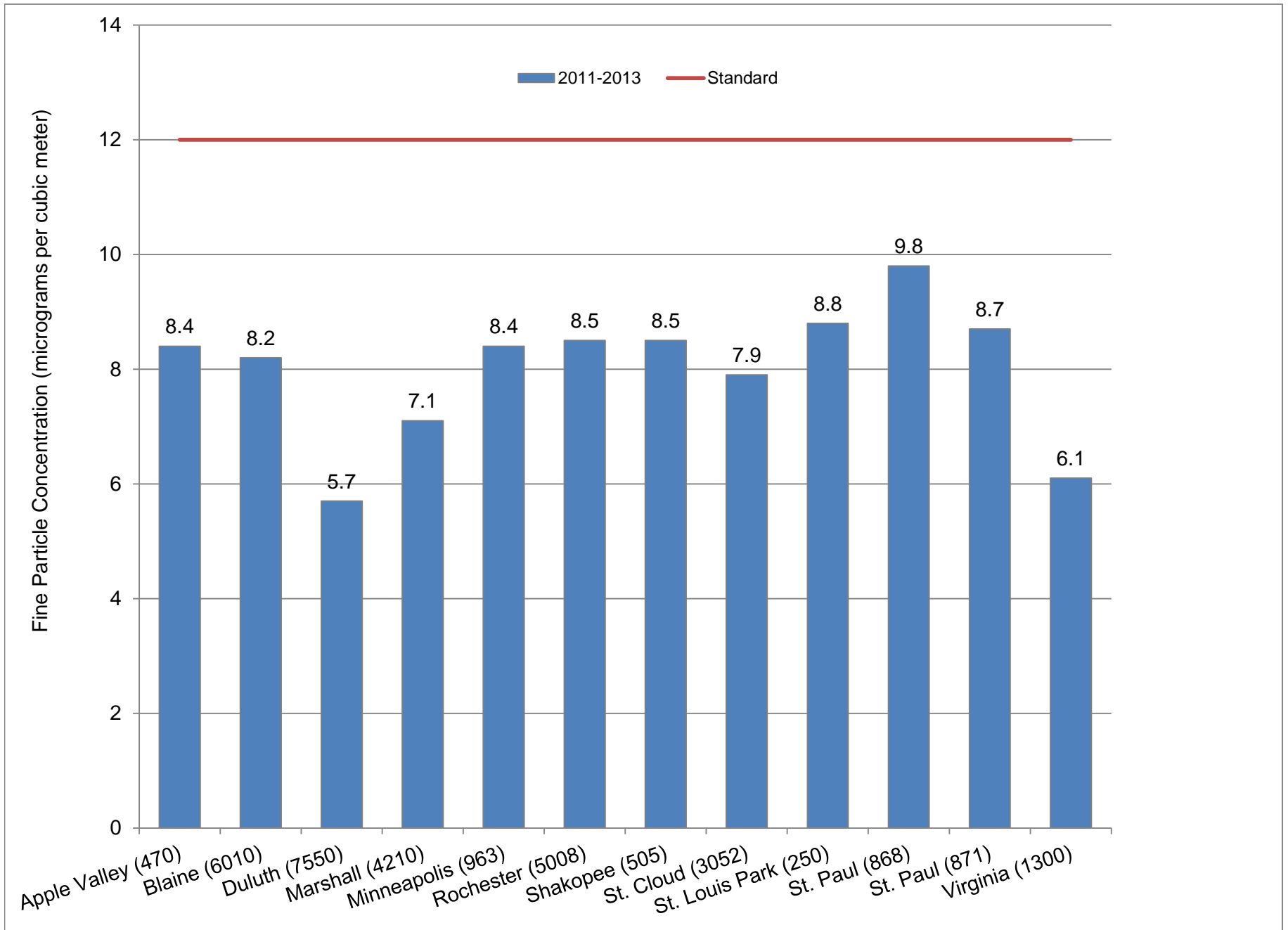
2013 PM10 Daily



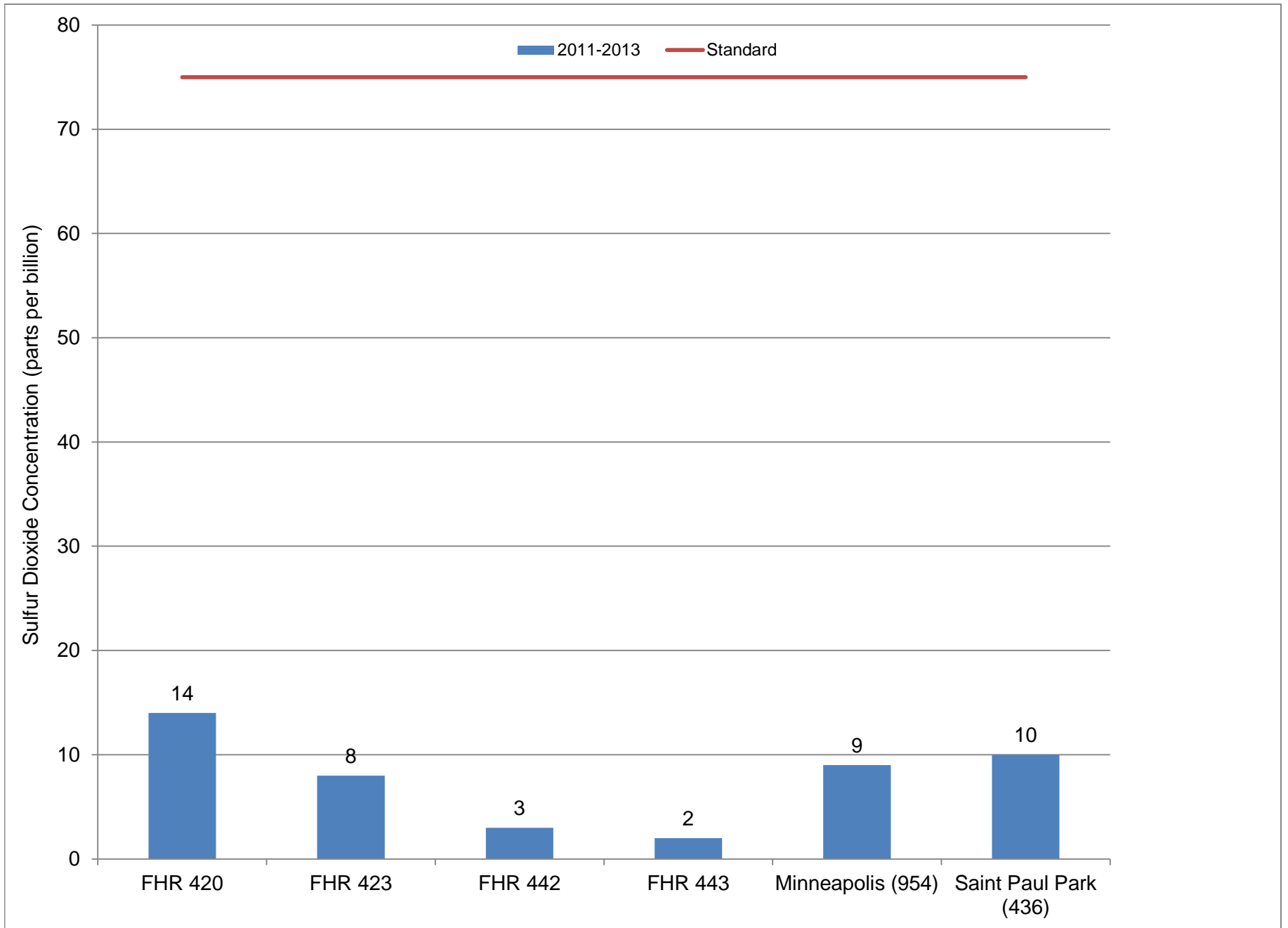
2011-2013 PM2.5 Daily



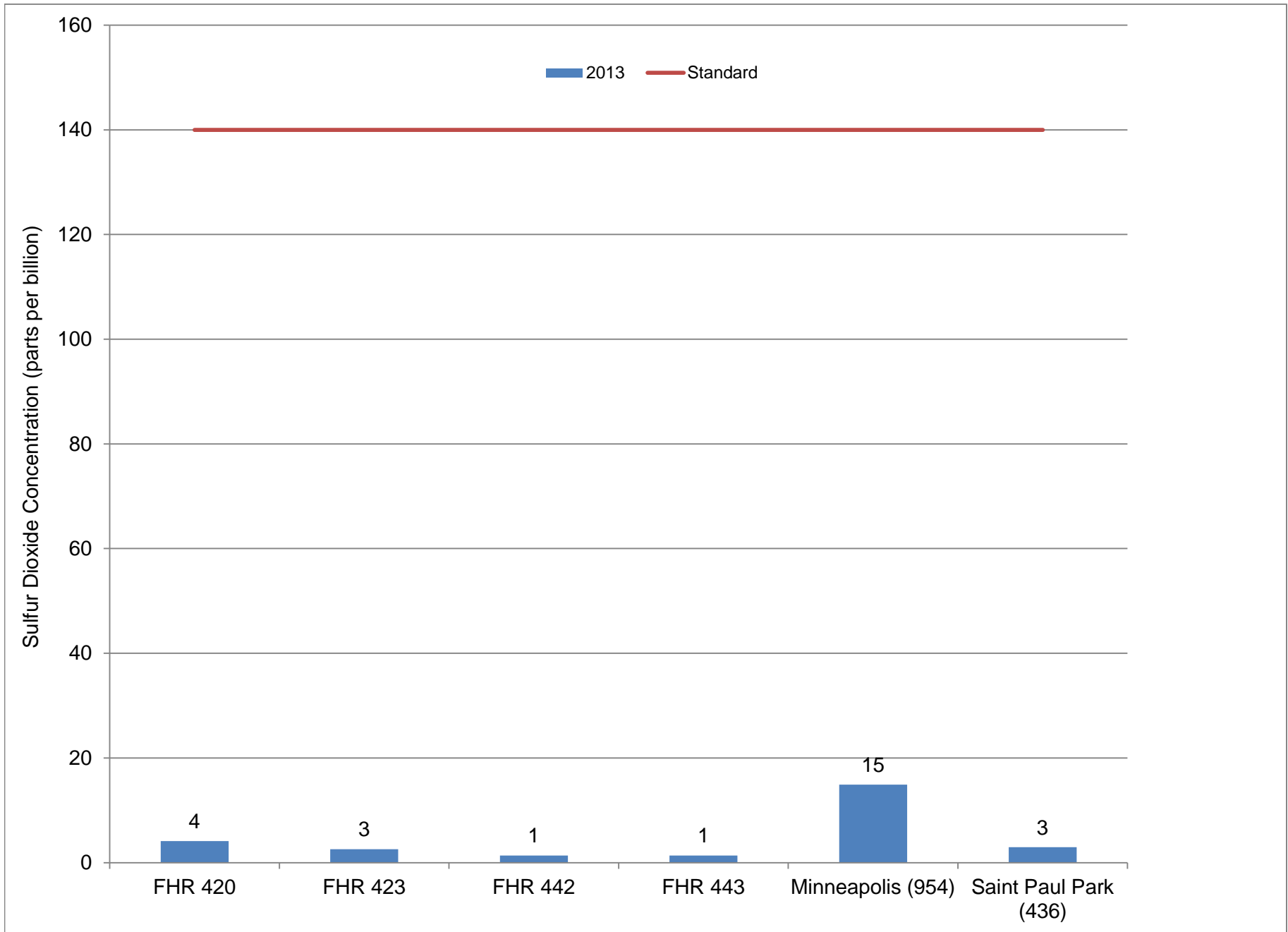
2011-2013 PM2.5 Annual



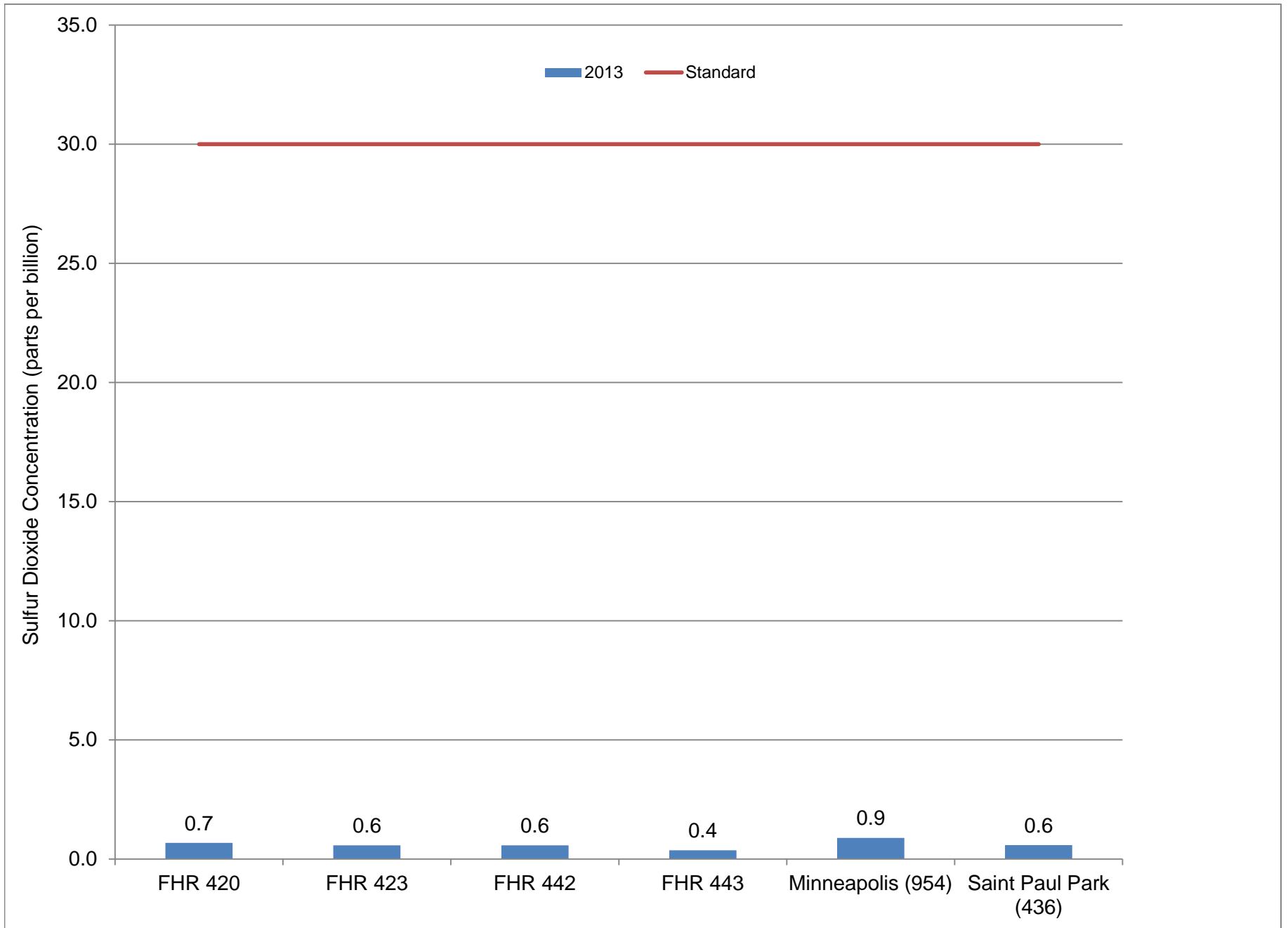
2011-2013 SO2 1-HR



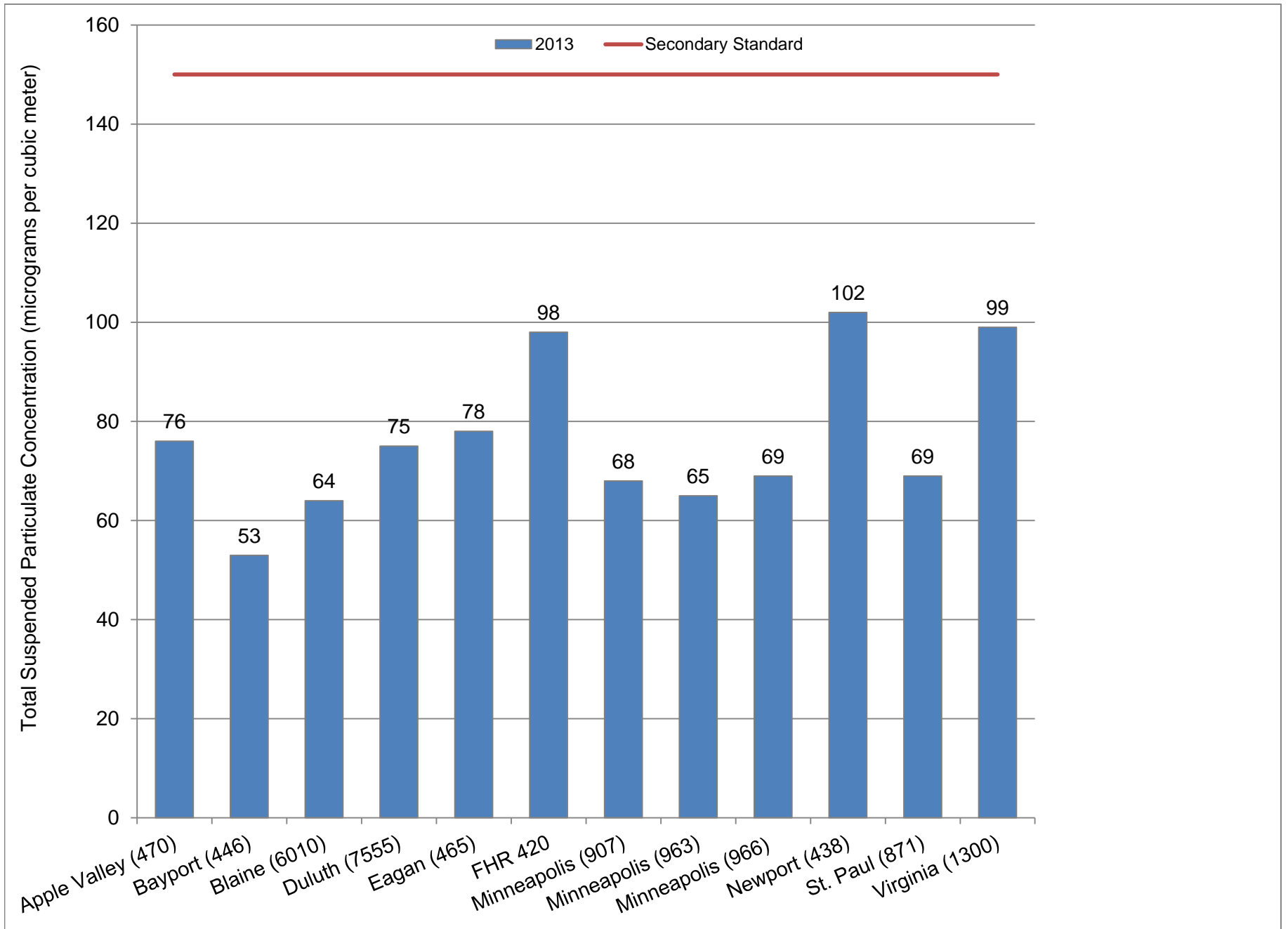
2011-2013 SO2 24-HR



2011-2013 SO2 Annual



2013 TSP Daily



2013 TSP Annual

