1 **Table S1.** Statistics of O_x data in units of ppb at the 5 monitoring sites within the MMA during 1993-2014.

Year	GPE					SNN					OBI					SNB					STA				
	Min	AVG	SD	Median	Max	Min	AVG	SD	Median	Max	Min	AVG	SD	Median	Max	Min	AVG	SD	Median	Max	Min	AVG	SD	Median	Max
1993	5	37	21	33	190	4	35	17	32	158	6	51	27	45	330	7	42	21	37	250	10	46	28	39	286
1994	3	35	17	31	148	6	32	14	30	153	2	41	21	36	233	7	32	16	30	191	8	46	27	39	251
1995	2	35	17	32	190	3	30	15	28	184	4	39	18	35	160	4	32	18	29	193	11	44	23	39	211
1996	2	36	20	33	213	3	32	16	30	171	7	46	25	41	220	7	37	20	34	219	10	45	26	38	196
1997	5	36	19	32	230	5	33	17	31	260	5	44	25	39	200	6	37	19	33	204	6	46	27	38	213
1998	8	40	19	36	162	6	38	14	36	146	1	40	23	37	216	0	40	22	37	209	0	37	23	33	181
1999	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	7	41	18	38	142	1	30	19	26	171	5	39	24	34	208
2000	1	34	18	32	102	1	27	14	25	110	2	46	31	40	290	1	31	20	26	163	0	39	26	32	179
2001	1	34	18	31	161	4	31	14	29	117	2	51	27	46	251	1	26	17	21	228	0	34	25	27	207
2002	1	37	20	34	130	2	19	16	16	89	0	48	23	43	233	0	29	21	23	133	1	32	21	26	146
2003	1	29	18	25	143	5	30	17	27	138	3	30	21	25	160	3	29	14	26	108	1	31	21	26	139
2004	4	37	20	33	169	4	33	17	30	167	3	37	22	33	225	3	39	19	35	158	2	38	25	31	182
2005	8	42	20	39	166	8	40	19	38	170	10	42	22	38	179	10	41	21	37	196	5	46	26	40	192
2006	7	41	20	37	190	9	39	18	36	173	8	47	22	42	185	8	42	21	38	183	2	51	26	46	239
2007	7	38	19	35	170	8	39	17	36	146	9	45	22	41	189	9	40	19	37	162	0	47	26	42	185
2008	7	41	21	38	220	6	40	18	37	145	10	45	22	41	171	10	44	21	40	172	2	42	25	36	188
2009	4	40	18	37	155	7	37	16	34	142	10	41	18	38	168	10	43	19	40	166	5	43	22	37	176
2010	7	39	19	35	155	8	46	18	43	162	6	43	22	39	168	6	43	19	40	145	1	34	23	30	181
2011	7	41	19	38	142	3	41	19	38	147	1	40	23	36	147	1	43	22	39	165	1	45	26	39	172
2012	8	37	17	34	149	2	37	16	34	136	12	42	19	38	153	12	43	19	40	163	6	46	22	41	219
2013	8	39	18	36	182	7	34	16	31	138	6	40	20	35	162	6	42	20	39	158	3	43	21	40	222
2014	N.A.	N.A.	N.A.	N.A.	N.A.	8	37	17	33	153	3	36	21	30	175	3	34	22	30	164	3	37	22	31	173

NR: No records.
AVG: Average.
SD: Standard deviation for the averages.

7

Table S2. Averaged O_x growth rates in units of ppb yr^{-1} for 1993-2014 calculated by wind sector within the MMA.

Site	N	NE	E	SE	S	SW	W	NW
GPE	0.13[a]	0.20[d]	0.47[d]	0.52[d]	0.06	0.04	-0.16[b]	-0.02
SNN	0.38[d]	0.25[d]	0.37[d]	0.55[d]	0.15[a]	-0.15	0.08	0.21[d]
OBI	-0.42[d]	-0.22[b]	0.10	-0.02	-0.31[b]	-0.48[d]	-0.45[d]	-0.46[d]
SNB	0.70[d]	0.75[d]	0.78[d]	0.49[d]	0.24[d]	0.44[d]	0.48[d]	0.54[d]
STA	0.04	0.00	-0.13	0.02	-0.12	-0.08	-0.05	0.06

8
9
10
11
12

[a]Level of significance $p < 0.1$.
[b]Level of significance $p < 0.05$.
[c]Level of significance $p < 0.01$.
[d]Level of significance $p < 0.001$.

13

Table S3. Averaged NO_x growth rates in units of ppb yr^{-1} for 1993-2014 calculated by wind sector within the MMA.

Site	N	NE	E	SE	S	SW	W	NW
GPE	0.37[d]	0.35[d]	0.31[d]	0.06	-0.23	-0.09	0.18[b]	0.43[d]
SNN	0.55[d]	0.59[d]	0.18[d]	0.37[d]	0.48	0.31	0.72[d]	0.78[d]
OBI	-0.46[d]	-0.46[d]	-0.39[d]	-0.83[d]	-1.36[d]	-1.52[d]	-1.14[d]	-0.56[d]
SNB	0.74[d]	0.60[d]	0.53[d]	0.68[d]	0.68[d]	1.01[d]	1.31[d]	1.47[d]
STA	1.47[d]	0.70[d]	0.22[b]	0.10	0.41[c]	0.83[d]	1.24[d]	1.38[d]

14
15
16
17

[a]Level of significance $p < 0.1$.
[b]Level of significance $p < 0.05$.
[c]Level of significance $p < 0.01$.
[d]Level of significance $p < 0.001$.

18
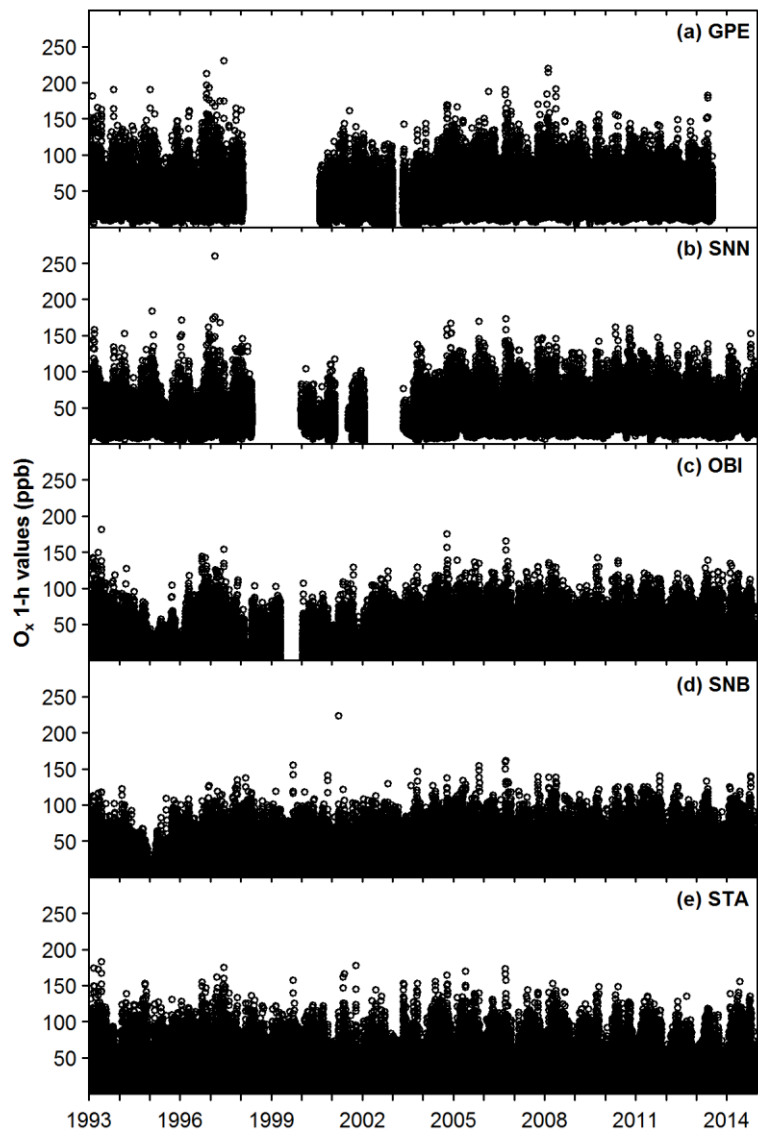
Fig. S1. 1-h values of O_x calculated at the 5 sites within the MMA during 1993-2014.

20

21
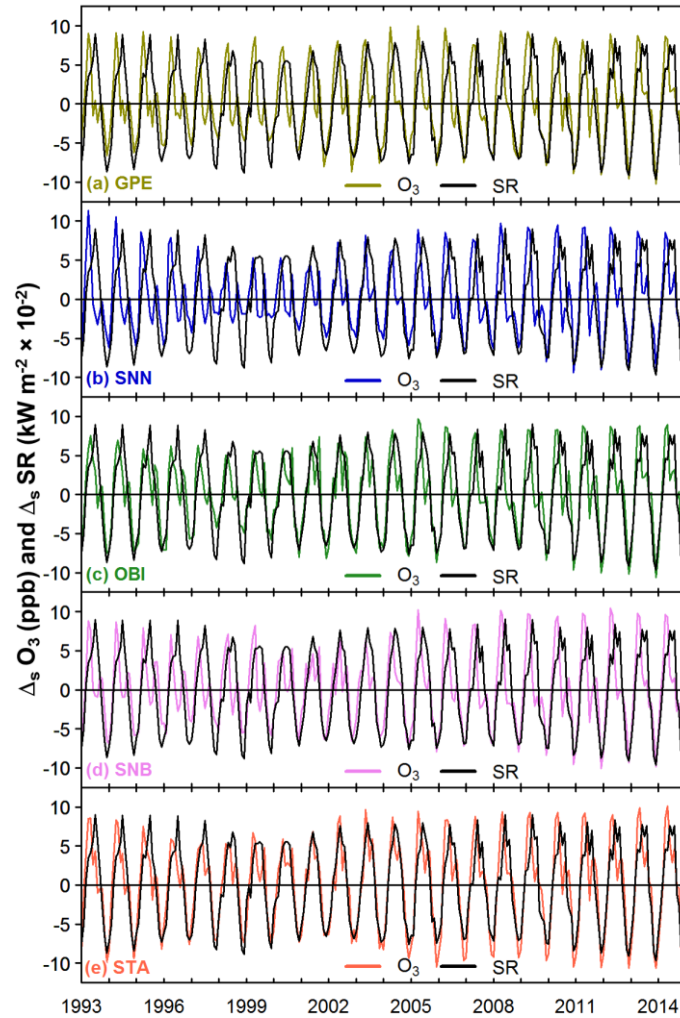
Fig. S2. Seasonal variations in O_3 mixing ratios and SR at the 5 sites within the MMA, constructed from filtered data using the STL technique developed by Cleveland et al. (1990).

24

25
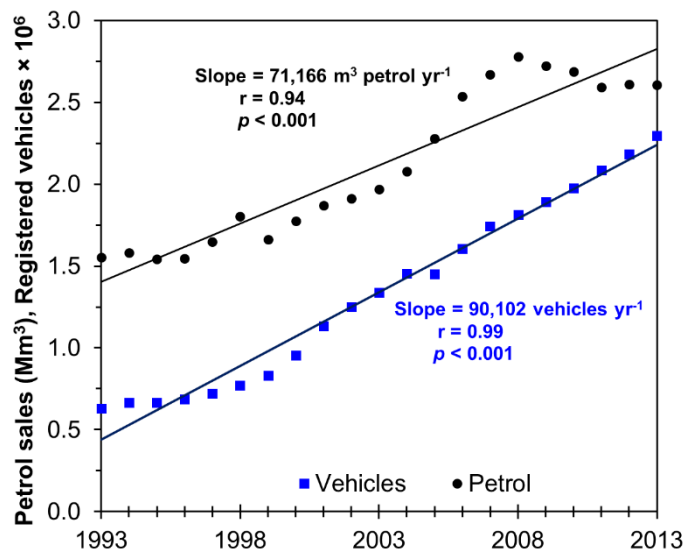
Fig. S3. Petrol sales in the MMA and registered vehicles in the Nuevo Leon state during 1993-2013.

28