2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 010730023																		
EC	WIN	23	0.69	1.68	0.82	141.85	141.85	0.99	0.99	0.14	256.36	98.91	1.42	256.36	98.91	1.42	1.05	0.67
EC	SPR	29	0.67	1.28	0.56	90.45	96.52	0.61	0.65	0.15	140.72	69.91	0.9	144.03	73.55	0.97	0.72	0.32
EC	SUM	26	0.74	1.38	0.63	86.13	94.5	0.64	0.7	0.15	120.61	68.3	0.86	123.39	71.69	0.95	0.75	0.4
EC	FAL	21	0.71	1.45	0.6	105.16	105.16	0.74	0.74	0.25	187.75	78.88	1.05	187.75	78.88	1.05	0.9	0.36
EC	ALL	99	0.7	1.44	0.65	104.18	108.2	0.73	0.76	0.19	172.28	78.13	1.04	173.98	80.08	1.08	0.85	0.42
NACL	WIN	26	0.12	0.26	0.82	116.99	126.48	0.14	0.15	0.04	197.3	79.72	1.17	201.27	85.05	1.26	0.24	0.68
NACL	SPR	29	0.13	0.22	0.89	61.03	67.41	0.08	0.09	0.02	256.21	57.05	0.61	259.92	61.25	0.67	0.15	0.79
NACL	SUM	28	0.09	0.11	0.68	28.58	45.27	0.02	0.04	0	50.21	29.12	0.29	61.06	42.81	0.45	0.05	0.46
NACL	FAL	23	0.12	0.19	0.85	56.41	70.25	0.07	0.08	0.01	128.47	56.97	0.56	135.26	65.77	0.7	0.12	0.72
NACL	ALL	106	0.11	0.19	0.82	67.56	78.48	0.08	0.09	0.02	159.63	55.21	0.68	165.96	63.2	0.78	0.16	0.67
NH4	WIN	26	0.97	1.13	0.31	16.33	42.1	0.16	0.41	0.27	34.78	13.68	0.16	57.2	40.33	0.42	0.54	0.1
NH4	SPR	30	1.03	0.99	0.51	-4.2	42.64	-0.04	0.44	0.36	5.31	-10.03	-0.04	45.45	43.9	0.45	0.6	0.26
NH4	SUM	28	1.06	0.95	0.79	-10.9	25.62	-0.12	0.27	0.13	7.13	-4.95	-0.12	35.61	29.49	0.29	0.37	0.62
NH4	FAL	23	0.6	0.85	0.66	40.14	56.23	0.24	0.34	0.1	77.31	41.61	0.4	87.47	53.55	0.56	0.4	0.43
NH4	ALL	107	0.93	0.98	0.55	5.16	39.33	0.05	0.37	0.24	28.42	8.16	0.05	54.76	41.34	0.39	0.5	0.3
NO3	WIN	26	1.21	1.48	0.13	22.73	66.75	0.27	0.81	1.07	66.93	17.43	0.23	97.6	58.03	0.67	1.07	0.02
NO3	SPR	30	0.56	0.62	0.11	12.26	76.75	0.07	0.43	0.81	15.98	-28.59	0.12	79.09	60.82	0.77	0.9	0.01
NO3	SUM	28	0.33	0.23	0.39	-31.62	32.49	-0.1	0.11	0.02	-27.49	-37.2	-0.46	28.53	38.21	0.48	0.17	0.15
NO3	FAL	23	0.53	0.65	0.45	22.48	55.26	0.12	0.29	0.16	24.09	1.73	0.22	56.8	46.11	0.55	0.42	0.2
NO3	ALL	107	0.65	0.73	0.45	12.95	62.59	0.08	0.41	0.55	18.73	-13.14	0.13	65.57	51.06	0.63	0.74	0.2
OC	WIN	23	1.77	6.01	0.86	240.03	240.03	4.24	4.24	2.32	421.18	120.61	2.4	421.18	120.61	2.4	4.51	0.73
OC	SPR	29	1.49	4.79	0.68	221.4	221.4	3.3	3.3	1.66	301.66	109.04	2.21	301.66	109.04	2.21	3.54	0.47
OC	SUM	26	2.08	7.39	0.77	255.26	255.26	5.31	5.31	6.62	279.9	111.86	2.55	279.9	111.86	2.55	5.9	0.6
OC	FAL	21	1.71	5.42	0.76	217.96	217.96	3.72	3.72	4.28	360.13	109.73	2.18	360.13	109.73	2.18	4.25	0.58
OC	ALL	99	1.75	5.89	0.77	235.59	235.59	4.13	4.13	4.28	336.11	112.62	2.36	336.11	112.62	2.36	4.62	0.59
PM-2.5	WIN	26	13.09	21.23	0.75	62.17	63.12	8.14	8.26	27.95	75.25	49.85	0.62	76.01	50.63	0.63	9.7	0.56
PM-2.5	SPR	30	13.53	17.5	0.48	29.33	39.63	3.97	5.36	31.24	38.61	26.09	0.29	46.07	34.57	0.4	6.85	0.23
PM-2.5	SUM	28	18.83	21.12	0.8	12.13	22.73	2.28	4.28	21.99	18.71	13.31	0.12	27.18	22.83	0.23	5.22	0.65
PM-2.5	FAL	23	11.72	18.68	0.8	59.44	59.63	6.97	6.99	15.14	74.61	49.09	0.59	74.86	49.34	0.6	7.98	0.64
PM-2.5	ALL	107	14.42	19.61	0.69	35.95	42.53	5.18	6.13	29.98	50.04	33.46	0.36	54.59	38.57	0.43	7.54	0.47
SO4	WIN	26	2.19	2.43	0.4	11.02	33.15	0.24	0.73	0.86	16.19	6.88	0.11	36.35	31.43	0.33	0.96	0.16
SO4	SPR	30	3.18	3.02	0.44	-4.93	39.01	-0.16	1.24	2.91	6.1	-4.5	-0.05	38.64	36.32	0.41	1.71	0.19
SO4	SUM	28	3.87	2.98	0.78	-22.81	27.67	-0.88	1.07	0.88	-20.02	-26.54	-0.3	29.46	34.23	0.36	1.29	0.61
SO4	FAL	23	2.12	2.36	0.69	11.06	29.96	0.23	0.64	0.54	23.29	15.54	0.11	35.27	29.64	0.3	0.77	0.47
SO4	ALL	107	2.89	2.73	0.59	-5.73	32.54	-0.17	0.94	1.58	5.41	-3.19	-0.06	34.96	33.15	0.35	1.27	0.35

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Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 010732003																		
EC	WIN	15	0.74	1.01	0.72	36.82	48.97	0.27	0.36	0.17	67.56	42.34	0.37	72.54	48.03	0.49	0.5	0.52
EC	SPR	13	0.68	0.69	0.66	1.91	31.64	0.01	0.21	0.07	13.46	6.35	0.02	33.17	30.03	0.32	0.26	0.44
EC	SUM	16	0.86	0.84	0.74	-2.87	21.56	-0.02	0.19	0.05	0.91	-3.22	-0.03	24.35	23.76	0.22	0.23	0.55
EC	FAL	14	0.67	0.95	0.84	42.38	49.27	0.28	0.33	0.09	58.39	37.36	0.42	64.32	43.96	0.49	0.41	0.7
EC	ALL	58	0.74	0.88	0.7	18.19	36.72	0.13	0.27	0.12	34.83	20.5	0.18	48.44	36.32	0.37	0.37	0.5
NACL	WIN	15	0.12	0.25	0.94	106.44	106.44	0.13	0.13	0.06	135.92	68.09	1.06	135.92	68.09	1.06	0.28	0.88
NACL	SPR	14	0.21	0.26	0.79	22.12	60.03	0.05	0.13	0.04	122.26	38.4	0.22	143.09	67.6	0.6	0.2	0.62
NACL	SUM	16	0.1	0.12	0.1	16.74	57.22	0.02	0.06	0.01	58.96	30.18	0.17	74.8	52.34	0.57	0.08	0.01
NACL	FAL	14	0.06	0.12	0.66	107.51	109.95	0.06	0.06	0	162.5	76.01	1.08	163.66	77.21	1.1	0.08	0.43
NACL	ALL	59	0.12	0.19	0.78	51.96	76.81	0.06	0.09	0.03	118.12	52.64	0.52	127.63	65.87	0.77	0.18	0.6
NH4	WIN	15	0.8	0.92	0.13	14.8	54.51	0.12	0.44	0.33	72.52	13.3	0.15	104.63	52.97	0.55	0.59	0.02
NH4	SPR	14	0.79	0.8	0.34	1.02	55.04	0.01	0.43	0.32	17.68	-7.35	0.01	62.95	55.46	0.55	0.56	0.12
NH4	SUM	16	1.01	0.95	0.67	-6.18	25.37	-0.06	0.26	0.13	5	-1.82	-0.07	28.64	27.16	0.27	0.37	0.45
NH4	FAL	14	0.49	0.84	0.62	71.99	84.07	0.35	0.41	0.13	119.57	60.19	0.72	124.75	65.78	0.84	0.51	0.39
NH4	ALL	59	0.78	0.88	0.38	12.67	48.84	0.1	0.38	0.25	52.36	15.42	0.13	78.91	49.6	0.49	0.51	0.15
NO3	WIN	15	1.08	1.09	0.21	1.38	73.08	0.01	0.79	1.2	54.86	-7.42	0.01	105.74	64.63	0.73	1.09	0.04
NO3	SPR	14	0.54	0.61	0.03	11.97	110.2	0.07	0.6	1.44	79.1	-41.4	0.12	162.17	80.65	1.1	1.2	0
NO3	SUM	16	0.29	0.15	0.23	-48.04	48.04	-0.14	0.14	0.01	-45.19	-63.48	-0.92	45.19	63.48	0.92	0.17	0.05
NO3	FAL	14	0.51	0.61	0.3	18.78	75.65	0.1	0.39	0.28	35.7	-9.89	0.19	89.99	66.8	0.76	0.54	0.09
NO3	ALL	59	0.6	0.61	0.2	0.78	78.34	0	0.47	0.72	28.93	-31.27	0.01	98.97	68.63	0.78	0.85	0.04
OC	WIN	15	2.21	3.97	0.79	79.37	79.37	1.76	1.76	3.94	90.98	56.33	0.79	90.98	56.33	0.79	2.65	0.63
OC	SPR	13	2.32	2.91	0.76	25.14	35.89	0.58	0.83	0.68	36.15	23.53	0.25	46.69	35.3	0.36	1.01	0.57
OC	SUM	16	4.29	6.4	0.4	48.93	69.56	2.1	2.99	8.78	70.28	44.18	0.49	78.53	54.98	0.7	3.63	0.16
OC	FAL	14	1.97	3.71	0.9	87.9	89.4	1.74	1.77	2.33	86.25	53.26	0.88	88.45	55.6	0.89	2.31	0.8
OC	ALL	58	2.75	4.34	0.66	57.51	68.67	1.58	1.89	4.47	71.84	44.89	0.58	77.01	51.07	0.69	2.64	0.44
PM-2.5	WIN	15	10.91	14.17	0.84	29.96	33.99	3.27	3.71	23.32	24.05	17.36	0.3	30.02	23.69	0.34	5.83	0.71
PM-2.5	SPR	14	13.3	11.8	0.52	-11.26	36.93	-1.5	4.91	30.48	0.86	-9.23	-0.13	39.6	39.15	0.42	5.72	0.27
PM-2.5	SUM	16	20.43	17.21	0.69	-15.76	23.49	-3.22	4.8	24.02	-14.8	-18.86	-0.19	22.97	25.96	0.28	5.86	0.48
PM-2.5	FAL	14	10.26	13.26	0.82	29.27	35.9	3	3.68	16.59	27.87	18.4	0.29	39.95	32.96	0.36	5.06	0.68
PM-2.5	ALL	59	13.9	14.22	0.65	2.26	30.81	0.31	4.28	31.71	8.92	1.47	0.02	32.74	30.18	0.31	5.64	0.42
SO4	WIN	15	1.96	2.14	0.02	9.13	45.71	0.18	0.9	1.13	21.46	4.63	0.09	52.63	44.37	0.46	1.08	0
SO4	SPR	14	2.9	2.77	0.47	-4.29	37.56	-0.12	1.09	1.89	8.85	-6.55	-0.04	46.37	40.37	0.39	1.38	0.23
SO4	SUM	16	3.97	3.09	0.61	-22.15	29.48	-0.88	1.17	1.23	-20.17	-27.46	-0.28	29.12	35.19	0.38	1.42	0.37
SO4	FAL	14	1.98	2.23	0.71	12.35	33.91	0.25	0.67	0.61	19.39	11.47	0.12	35.99	31.65	0.34	0.82	0.5
SO4	ALL	59	2.73	2.57	0.58	-6.01	35.24	-0.16	0.96	1.42	6.69	-5.1	-0.06	40.82	37.91	0.37	1.2	0.34

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Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 010890014																		
EC	WIN	14	0.52	0.91	0.61	75.78	77.64	0.39	0.4	0.11	119.86	64.2	0.76	120.55	64.91	0.78	0.51	0.38
EC	SPR	13	0.44	0.71	0.56	62.06	62.2	0.27	0.27	0.04	83.33	51.43	0.62	83.41	51.52	0.62	0.34	0.32
EC	SUM	16	0.57	0.93	0.74	64.95	64.95	0.37	0.37	0.02	68.85	49.34	0.65	68.85	49.34	0.65	0.39	0.55
EC	FAL	15	0.48	0.89	0.82	85.5	85.5	0.41	0.41	0.05	113.64	65.32	0.86	113.64	65.32	0.86	0.47	0.67
EC	ALL	58	0.5	0.87	0.69	72.13	72.61	0.36	0.37	0.06	95.99	57.53	0.72	96.18	57.72	0.73	0.43	0.47
NACL	WIN	14	0.06	0.22	0.88	247.83	256.4	0.16	0.16	0.04	340.63	95.55	2.48	346.64	103.17	2.56	0.26	0.78
NACL	SPR	12	0.11	0.22	0.8	90.86	115.05	0.1	0.13	0.03	128.26	55.16	0.91	144.58	76.8	1.15	0.21	0.64
NACL	SUM	16	0.07	0.08	0.38	24.21	52.85	0.02	0.04	0	52.75	19.16	0.24	72.16	46.56	0.53	0.05	0.14
NACL	FAL	15	0.05	0.11	0.33	131.86	142.84	0.06	0.07	0	173.58	70.96	1.32	181.71	80.8	1.43	0.09	0.11
NACL	ALL	57	0.07	0.15	0.75	114.82	134.46	0.08	0.1	0.02	171.15	59.13	1.15	183.65	75.84	1.34	0.17	0.56
NH4	WIN	15	0.93	1.17	0.22	26.46	49.12	0.25	0.45	0.31	77.41	23.11	0.26	95.09	44.45	0.49	0.61	0.05
NH4	SPR	13	1.02	1.29	0.49	26.79	56.65	0.27	0.58	0.45	51.16	23.27	0.27	73.88	54.5	0.57	0.72	0.24
NH4	SUM	16	0.99	1.27	0.4	27.91	50.26	0.28	0.5	0.33	56.54	27.46	0.28	72.12	45.9	0.5	0.64	0.16
NH4	FAL	15	0.52	1.06	0.48	105.53	115.05	0.55	0.59	0.27	188.22	75.37	1.06	190.97	78.44	1.15	0.75	0.23
NH4	ALL	59	0.86	1.2	0.43	39.08	61.51	0.34	0.53	0.35	94.14	37.61	0.39	108.56	55.7	0.62	0.68	0.18
NO3	WIN	15	1.32	1.89	0.3	42.75	74.31	0.57	0.98	1	93.46	38.35	0.43	113.68	63.46	0.74	1.15	0.09
NO3	SPR	13	0.54	1.41	0.46	163.69	174.3	0.88	0.93	2.33	144.4	47.88	1.64	160.46	69.88	1.74	1.76	0.22
NO3	SUM	16	0.26	0.57	0.28	124.43	131.2	0.32	0.34	0.24	119.73	49.73	1.24	127.14	58.04	1.31	0.59	0.08
NO3	FAL	15	0.57	1.38	0.37	142.65	153.96	0.81	0.87	0.74	170.17	65.36	1.43	178.73	76.45	1.54	1.18	0.13
NO3	ALL	59	0.67	1.3	0.45	94.21	115.12	0.63	0.77	1.07	131.31	50.4	0.94	144.17	66.71	1.15	1.21	0.2
OC	WIN	14	1.69	4.43	0.7	162.39	162.39	2.74	2.74	2.71	239.64	96.71	1.62	239.64	96.71	1.62	3.2	0.49
OC	SPR	13	1.96	4	0.59	104.48	110.59	2.04	2.16	1.57	245.13	84.11	1.04	248.36	87.73	1.11	2.4	0.35
OC	SUM	16	2.84	6.96	0.45	145.07	145.07	4.12	4.12	2.55	171.85	86.66	1.45	171.85	86.66	1.45	4.42	0.2
OC	FAL	15	1.58	4.34	0.87	174.33	174.33	2.76	2.76	2.2	458.43	103.5	1.74	458.43	103.5	1.74	3.13	0.76
OC	ALL	58	2.04	5.01	0.68	145.67	146.99	2.97	3	2.86	278.75	92.87	1.46	279.48	93.68	1.47	3.42	0.46
PM-2.5	WIN	15	10.23	15.65	0.51	53.01	61.94	5.42	6.33	30.36	60.8	39.91	0.53	65.31	44.94	0.62	7.73	0.26
PM-2.5	SPR	13	12.15	15.12	0.28	24.39	41.07	2.96	4.99	35.08	42.86	22.63	0.24	54.72	36.09	0.41	6.62	0.08
PM-2.5	SUM	16	17.11	20.7	0.39	21	34.18	3.59	5.85	32.12	28.33	21.04	0.21	37.26	31.26	0.34	6.71	0.16
PM-2.5	FAL	15	8.32	15.44	0.71	85.56	85.56	7.12	7.12	25.88	99.99	57.99	0.86	99.99	57.99	0.86	8.75	0.51
PM-2.5	ALL	59	12.03	16.85	0.56	40.02	50.74	4.82	6.11	33.34	58	35.58	0.4	64.19	42.6	0.51	7.52	0.31
SO4	WIN	15	2.07	1.94	0.19	-6.34	39.82	-0.13	0.82	0.95	15.59	-5.02	-0.07	55.52	45.88	0.43	0.98	0.04
SO4	SPR	13	3.05	2.85	0.29	-6.33	38.22	-0.19	1.16	1.78	7.08	-2.9	-0.07	41.46	38.51	0.41	1.35	0.09
SO4	SUM	16	3.61	3.35	0.46	-7.36	34.37	-0.27	1.24	2.46	-0.29	-9.19	-0.08	35.53	34.98	0.37	1.59	0.21
SO4	FAL	15	1.81	1.97	0.57	9.01	41.18	0.16	0.75	0.97	29.9	9.75	0.09	55.99	42.1	0.41	1	0.33
SO4	ALL	59	2.64	2.53	0.56	-4.03	37.63	-0.11	0.99	1.57	13.04	-1.93	-0.04	47.12	40.34	0.39	1.26	0.32

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 011011002																		
EC	WIN	15	0.8	1.22	0.65	52.54	61.39	0.42	0.49	0.29	105.82	52.6	0.53	111.8	59.15	0.61	0.69	0.43
EC	SPR	15	0.48	0.79	0.75	65.78	69.24	0.31	0.33	0.04	80.28	51.56	0.66	82.81	54.35	0.69	0.37	0.57
EC	SUM	16	0.53	1	0.39	88.84	88.84	0.47	0.47	0.08	116.15	63.58	0.89	116.15	63.58	0.89	0.54	0.15
EC	FAL	14	0.54	1.09	0.79	102.11	102.11	0.55	0.55	0.2	103.03	63.63	1.02	103.03	63.63	1.02	0.71	0.63
EC	ALL	60	0.59	1.02	0.67	74.57	78.3	0.44	0.46	0.16	101.54	57.84	0.75	103.67	60.18	0.78	0.59	0.45
NACL	WIN	14	0.08	0.26	0.98	236.48	236.48	0.18	0.18	0.08	371.03	98.65	2.36	371.03	98.65	2.36	0.34	0.96
NACL	SPR	13	0.24	0.33	0.6	39.47	87.81	0.09	0.21	0.12	1122.11	54.73	0.39	1136.4	77.46	0.88	0.36	0.35
NACL	SUM	15	0.09	0.17	0.23	92.73	110.08	0.08	0.1	0.01	125.34	60.06	0.93	135.29	72	1.1	0.12	0.05
NACL	FAL	14	0.04	0.11	0.6	207.95	207.95	0.07	0.07	0	237.53	103.05	2.08	237.53	103.05	2.08	0.08	0.36
NACL	ALL	56	0.11	0.22	0.68	100.54	129.28	0.11	0.14	0.05	446.2	79.22	1.01	452.18	87.69	1.29	0.26	0.46
NH4	WIN	14	0.73	0.91	0.28	24.9	67.51	0.18	0.49	0.46	61.61	14.35	0.25	96.63	57.54	0.68	0.7	0.08
NH4	SPR	13	0.89	0.69	0.72	-22.1	36.54	-0.2	0.32	0.1	-14.88	-30.55	-0.28	43.62	52.84	0.47	0.37	0.52
NH4	SUM	15	0.82	0.83	0.14	1.24	46.21	0.01	0.38	0.23	19.34	-1.21	0.01	56.31	44.68	0.46	0.48	0.02
NH4	FAL	14	0.46	0.81	0.78	75.14	75.14	0.35	0.35	0.07	86.92	53.87	0.75	86.92	53.87	0.75	0.43	0.6
NH4	ALL	56	0.72	0.81	0.34	12.32	53.44	0.09	0.39	0.25	38.86	9.64	0.12	71.1	52.09	0.53	0.51	0.11
NO3	WIN	14	0.64	1.32	0.35	106.85	144.37	0.68	0.92	2.8	102.76	27.38	1.07	134.32	72.01	1.44	1.81	0.12
NO3	SPR	13	0.4	0.4	0.68	0	58.83	0	0.23	0.13	-12.46	-33.13	0	50.43	58.12	0.59	0.36	0.46
NO3	SUM	16	0.21	0.18	0.31	-12.95	56.67	-0.03	0.12	0.02	21.43	-17.58	-0.15	80.53	62.38	0.65	0.14	0.1
NO3	FAL	14	0.29	0.46	0.22	57.56	99.31	0.17	0.29	0.17	64.55	12.18	0.58	103.91	64.66	0.99	0.44	0.05
NO3	ALL	57	0.38	0.58	0.51	53.32	101.75	0.2	0.38	0.84	44.27	-2.77	0.53	92.62	64.33	1.02	0.94	0.26
OC	WIN	15	2.12	5.18	0.56	144.32	144.32	3.06	3.06	11.11	191.28	82.35	1.44	191.28	82.35	1.44	4.52	0.31
OC	SPR	15	1.96	3.45	0.62	75.67	87.08	1.48	1.71	1.59	116.62	53.73	0.76	127.62	68	0.87	1.95	0.38
OC	SUM	16	2.98	7.6	0.31	154.86	154.86	4.62	4.62	11.73	201.95	84.9	1.55	201.95	84.9	1.55	5.75	0.1
OC	FAL	14	1.87	4.65	0.89	148.33	148.33	2.78	2.78	5.92	148.29	78.61	1.48	148.29	78.61	1.48	3.69	0.8
OC	ALL	60	2.25	5.27	0.57	133.87	136.36	3.02	3.07	8.97	165.43	75	1.34	168.18	78.57	1.36	4.25	0.33
PM-2.5	WIN	14	9.2	15.3	0.55	66.29	73.46	6.1	6.76	69.04	66.87	39.81	0.66	72.44	46.52	0.73	10.31	0.3
PM-2.5	SPR	14	11.71	12.16	0.62	3.87	23.7	0.45	2.77	15.85	8.42	0.72	0.04	27.43	26.38	0.24	4.01	0.38
PM-2.5	SUM	16	16.17	18.73	0.29	15.81	38.65	2.56	6.25	71.22	469.76	15.47	0.16	487.49	37.04	0.39	8.82	0.08
PM-2.5	FAL	14	9.93	14.35	0.74	44.48	55.65	4.42	5.52	29.7	51.05	35.66	0.44	57.28	42.84	0.56	7.01	0.54
PM-2.5	ALL	58	11.9	15.26	0.5	28.17	45.02	3.35	5.36	51.61	160.09	22.66	0.28	172.41	38.16	0.45	7.93	0.25
SO4	WIN	14	1.97	1.91	0.13	-2.89	42.73	-0.06	0.84	0.96	11.38	-1.62	-0.03	46.11	42.78	0.44	0.98	0.02
SO4	SPR	13	3.11	2.57	0.71	-17.37	32.26	-0.54	1	1.04	-11.59	-18.84	-0.21	32.9	36.65	0.39	1.16	0.51
SO4	SUM	15	3.53	2.63	0.07	-25.52	44.49	-0.9	1.57	2.63	-15.59	-29.69	-0.34	45.12	51.08	0.6	1.86	0
SO4	FAL	14	1.88	2.14	0.82	13.59	23.22	0.26	0.44	0.25	18.71	11.36	0.14	29.9	23.77	0.23	0.56	0.68
SO4	ALL	56	2.63	2.31	0.48	-12.06	37	-0.32	0.97	1.45	0.66	-9.89	-0.14	38.72	38.83	0.42	1.25	0.23

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 011130001																		
EC	WIN	14	1.06	0.97	0.63	-8	40.31	-0.08	0.43	0.43	18.1	4.91	-0.09	45.08	39.58	0.44	0.66	0.39
EC	SPR	6	0.62	0.77	0.93	23.38	38.03	0.15	0.24	0.04	67.2	40.01	0.23	75.08	48.4	0.38	0.25	0.87
EC	SUM	12	0.57	0.56	0.35	-1.49	24.18	-0.01	0.14	0.04	6.84	1.88	-0.02	24.94	24.67	0.25	0.19	0.13
EC	FAL	5	0.35	0.48	0.94	37.4	37.4	0.13	0.13	0.01	51.21	36.59	0.37	51.21	36.59	0.37	0.16	0.89
EC	ALL	37	0.73	0.74	0.71	0.87	35.73	0.01	0.26	0.19	26.89	13.9	0.01	44.24	35.77	0.36	0.44	0.5
NACL	WIN	13	0.09	0.25	0.99	172.53	173.75	0.16	0.16	0.1	162.82	73.57	1.73	165.54	76.56	1.74	0.35	0.98
NACL	SPR	15	0.22	0.33	0.7	46.32	97.83	0.1	0.22	0.18	92.83	42.26	0.46	114.25	73.92	0.98	0.44	0.49
NACL	SUM	16	0.08	0.09	0.75	14.7	35.41	0.01	0.03	0	25.57	15.89	0.15	40.66	33.44	0.35	0.03	0.57
NACL	FAL	15	0.05	0.06	0.27	18.23	51.87	0.01	0.03	0	69.22	22.09	0.18	88.96	44.62	0.52	0.04	0.07
NACL	ALL	59	0.11	0.18	0.77	60.45	94.76	0.07	0.11	0.07	84.01	36.88	0.6	99.17	56.07	0.95	0.28	0.59
NH4	WIN	14	0.78	0.89	0.48	14.1	48.78	0.11	0.38	0.3	49.27	8.6	0.14	79.92	46.53	0.49	0.56	0.23
NH4	SPR	15	0.85	0.64	0.5	-23.9	43.26	-0.2	0.37	0.17	-20.77	-38.5	-0.31	47.27	55.41	0.57	0.46	0.25
NH4	SUM	16	0.98	0.74	0.42	-24.7	32.94	-0.24	0.32	0.12	-18.64	-28.04	-0.33	31.75	39.07	0.44	0.42	0.18
NH4	FAL	15	0.51	0.63	0.76	24.53	42.67	0.12	0.22	0.06	67.18	35.24	0.25	76.41	45.47	0.43	0.28	0.58
NH4	ALL	60	0.78	0.72	0.49	-7.47	41	-0.06	0.32	0.19	18.13	-6.29	-0.08	58.04	46.49	0.44	0.44	0.24
NO3	WIN	14	0.72	1.23	0.18	71.48	116.84	0.51	0.84	2.12	72.73	5.13	0.71	116.32	71.56	1.17	1.54	0.03
NO3	SPR	15	0.4	0.44	0.4	8.36	81.86	0.03	0.33	0.27	27.52	-37.54	0.08	103.8	74.29	0.82	0.52	0.16
NO3	SUM	16	0.22	0.1	0.09	-56.85	56.85	-0.13	0.13	0.01	-51.67	-75.04	-1.32	51.67	75.04	1.32	0.15	0.01
NO3	FAL	15	0.3	0.28	0.59	-9.54	46.43	-0.03	0.14	0.03	-10.27	-25.13	-0.11	45.72	51.43	0.51	0.18	0.35
NO3	ALL	60	0.4	0.49	0.46	21.6	86.01	0.09	0.35	0.63	7.5	-34.48	0.22	78.3	68.14	0.86	0.8	0.21
OC	WIN	14	3.5	4.72	0.67	34.82	51.35	1.22	1.8	9.97	63.87	37.59	0.35	70.65	46.07	0.51	3.38	0.44
OC	SPR	6	2.23	4.01	0.92	79.62	79.62	1.78	1.78	0.95	151.28	70.97	0.8	151.28	70.97	0.8	2.03	0.84
OC	SUM	12	3.74	5.46	0.18	45.98	73.44	1.72	2.75	7.77	80.05	44.14	0.46	92.31	60.48	0.73	3.28	0.03
OC	FAL	5	1.42	2.77	0.97	94.97	94.97	1.35	1.35	1.62	88.82	56.1	0.95	88.82	56.1	0.95	1.85	0.95
OC	ALL	37	3.09	4.58	0.63	48.18	66.03	1.49	2.04	6.73	86.66	47.63	0.48	93.21	56.14	0.66	2.99	0.39
PM-2.5	WIN	14	12.21	14.2	0.72	16.33	30.17	1.99	3.68	45.39	16.36	9.2	0.16	29.84	24.75	0.3	7.03	0.52
PM-2.5	SPR	15	12.56	11.03	0.63	-12.2	27.26	-1.53	3.42	17.02	-4.72	-12.92	-0.14	30.93	31.58	0.31	4.4	0.4
PM-2.5	SUM	16	18.06	14.18	0.06	-21.49	29.49	-3.88	5.33	45.77	-16.22	-23.06	-0.27	26.26	31.98	0.38	7.8	0
PM-2.5	FAL	15	10.57	10.03	0.92	-5.09	18.52	-0.54	1.96	6.22	4.79	0.78	-0.05	22.26	20.44	0.2	2.55	0.85
PM-2.5	ALL	60	13.45	12.36	0.6	-8.09	26.96	-1.09	3.62	33.03	-0.49	-7.04	-0.09	27.27	27.31	0.29	5.85	0.36
SO4	WIN	14	1.97	1.81	0.75	-7.98	27.48	-0.16	0.54	0.43	-1.29	-7.83	-0.09	29.7	29.84	0.3	0.67	0.56
SO4	SPR	15	2.76	2.24	0.36	-18.92	38	-0.52	1.05	1.59	-9.3	-23.27	-0.23	42.62	43.66	0.47	1.36	0.13
SO4	SUM	16	3.67	2.28	0.22	-37.79	38.22	-1.39	1.4	1.47	-33.65	-45.45	-0.61	34.56	46.34	0.61	1.84	0.05
SO4	FAL	15	1.9	1.68	0.77	-11.5	30.24	-0.22	0.58	0.47	-4.24	-10.52	-0.13	31.82	32.44	0.34	0.72	0.59
SO4	ALL	60	2.6	2.01	0.54	-22.73	34.81	-0.59	0.91	1.26	-12.66	-22.4	-0.29	34.76	38.34	0.45	1.27	0.29

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 051190007																		
EC	WIN	20	0.59	1.26	0.83	114.35	114.35	0.67	0.67	0.1	121.19	71.59	1.14	121.19	71.59	1.14	0.74	0.68
EC	SPR	26	0.41	0.83	0.55	104.37	104.37	0.42	0.42	0.08	121.1	66.1	1.04	121.1	66.1	1.04	0.51	0.31
EC	SUM	29	0.36	1.09	0.47	205.43	205.43	0.74	0.74	0.13	253.63	100.87	2.05	253.63	100.87	2.05	0.82	0.23
EC	FAL	24	0.47	1.19	0.62	152.01	152.01	0.72	0.72	0.12	196.61	88.65	1.52	196.61	88.65	1.52	0.8	0.38
EC	ALL	99	0.44	1.08	0.62	143.17	143.17	0.64	0.64	0.13	178.25	82.86	1.43	178.25	82.86	1.43	0.73	0.38
NACL	WIN	22	0.07	0.1	0.6	42.23	69.49	0.03	0.05	0	79.75	29.94	0.42	97.08	54.04	0.69	0.08	0.36
NACL	SPR	27	0.13	0.15	0.76	8.94	59.31	0.01	0.08	0.03	19.58	1.33	0.09	54.23	46.55	0.59	0.17	0.58
NACL	SUM	28	0.13	0.05	0.01	-59.1	65.71	-0.08	0.08	0.03	-40.41	-64.49	-1.44	51.35	73.63	1.61	0.18	0
NACL	FAL	23	0.07	0.14	0.84	114.78	132.28	0.08	0.09	0.04	72.89	29.23	1.15	90.93	51.6	1.32	0.22	0.7
NACL	ALL	100	0.1	0.11	0.51	6.11	74.07	0.01	0.08	0.03	28.28	-4.39	0.06	71.29	56.94	0.74	0.17	0.26
NH4	WIN	22	0.91	0.99	0.39	8.91	51.38	0.08	0.47	0.34	66.61	19.93	0.09	92.65	52.6	0.51	0.59	0.15
NH4	SPR	27	0.79	0.8	0.61	0.91	40.15	0.01	0.32	0.25	12.35	0.4	0.01	41.88	39.42	0.4	0.5	0.38
NH4	SUM	28	0.72	0.58	0.53	-19.33	39.38	-0.14	0.28	0.15	9.13	-10.96	-0.24	51.96	44.68	0.49	0.42	0.28
NH4	FAL	24	0.61	0.65	0.81	7.08	33.35	0.04	0.2	0.08	22.51	8.54	0.07	44.3	34.53	0.33	0.29	0.66
NH4	ALL	101	0.75	0.75	0.58	-1.14	41.59	-0.01	0.31	0.21	25.69	3.44	-0.01	56.31	42.59	0.42	0.46	0.34
NO3	WIN	22	1.71	1.78	0.14	4.13	56.61	0.07	0.97	1.79	38.07	5.8	0.04	72.27	52.25	0.57	1.34	0.02
NO3	SPR	27	0.77	0.81	0.41	6.21	80.15	0.05	0.61	1.13	1.71	-43.17	0.06	80.03	84.7	0.8	1.06	0.16
NO3	SUM	28	0.3	0.11	0.29	-63.52	65.23	-0.19	0.19	0.02	-59.55	-95.16	-1.74	62.43	97.75	1.79	0.23	0.08
NO3	FAL	24	0.58	0.65	0.63	11.03	69.08	0.06	0.4	0.27	16.47	-24.89	0.11	84.93	75.16	0.69	0.52	0.4
NO3	ALL	101	0.8	0.79	0.55	-1.09	65.72	-0.01	0.52	0.77	-3.84	-42.57	-0.01	74.62	78.98	0.66	0.88	0.3
OC	WIN	20	1.79	3.45	0.81	93.11	93.11	1.66	1.66	1.15	109.3	61.94	0.93	109.3	61.95	0.93	1.98	0.66
OC	SPR	26	1.52	1.99	0.59	30.9	43.67	0.47	0.67	0.64	39.31	23.72	0.31	51.45	38.31	0.44	0.93	0.34
OC	SUM	29	1.74	5.29	0.31	204.11	204.11	3.55	3.55	8.11	256.68	92.01	2.04	256.68	92.01	2.04	4.55	0.1
OC	FAL	24	1.58	3.24	0.74	104.34	104.46	1.65	1.66	1.98	121.78	63.95	1.04	121.86	64.03	1.04	2.17	0.55
OC	ALL	99	1.65	3.56	0.49	114.86	117.98	1.9	1.95	4.62	137.11	61.2	1.15	140.32	65.06	1.18	2.87	0.24
PM-2.5	WIN	22	11.37	11.97	0.58	5.22	23.66	0.59	2.69	10.58	8.93	2.86	0.05	27.55	25.78	0.24	3.31	0.33
PM-2.5	SPR	27	10.46	8.6	0.54	-17.76	33.29	-1.86	3.48	12.07	-14.45	-22.86	-0.22	33.54	38.9	0.4	3.94	0.29
PM-2.5	SUM	29	14.74	12.71	0.79	-13.8	24.09	-2.03	3.55	12.64	-12.31	-18.54	-0.16	27.83	30.55	0.28	4.1	0.62
PM-2.5	FAL	24	10.95	10.56	0.78	-3.63	23.2	-0.4	2.54	9.49	2.28	-3.61	-0.04	27.48	26.1	0.24	3.11	0.61
PM-2.5	ALL	102	11.99	10.96	0.72	-8.64	25.94	-1.04	3.11	12.43	-4.86	-11.56	-0.09	29.2	30.68	0.28	3.68	0.52
SO4	WIN	22	1.83	1.52	0.78	-17.26	31.71	-0.32	0.58	0.47	-13.73	-21.63	-0.21	31.94	37.02	0.38	0.76	0.61
SO4	SPR	27	2.35	1.83	0.75	-22.41	27.93	-0.53	0.66	0.51	-18.57	-25.64	-0.29	26.51	32.55	0.36	0.89	0.57
SO4	SUM	28	2.88	1.66	0.46	-42.48	45.06	-1.22	1.3	1.27	-35.33	-50.87	-0.74	42.36	56.5	0.78	1.66	0.21
SO4	FAL	24	1.96	1.54	0.85	-21.34	29.56	-0.42	0.58	0.49	-10.63	-18.63	-0.27	31.22	33.02	0.38	0.82	0.72
SO4	ALL	101	2.29	1.65	0.67	-28.28	34.88	-0.65	0.8	0.84	-20.27	-30.09	-0.39	33.21	40.28	0.49	1.12	0.45

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 080010006																		
EC	WIN	15	1.26	2.13	0.63	69.01	75.45	0.87	0.95	0.58	143.58	64.57	0.69	146.99	68.16	0.75	1.15	0.39
EC	SPR	15	0.51	1.15	0.71	126.55	126.55	0.65	0.65	0.07	186.66	86.14	1.27	186.66	86.14	1.27	0.7	0.5
EC	SUM	16	0.95	1.25	0.35	31.18	42.9	0.3	0.41	0.17	48.02	31.33	0.31	53.89	38.4	0.43	0.51	0.12
EC	FAL	15	1.27	1.82	0.82	42.68	43.31	0.54	0.55	0.15	58.71	39.21	0.43	59.37	39.89	0.43	0.67	0.68
EC	ALL	61	1	1.58	0.71	58.51	63.64	0.58	0.64	0.28	108.24	54.92	0.59	110.78	57.82	0.64	0.79	0.5
NACL	WIN	15	0.16	0.11	0.31	-28.56	50.39	-0.05	0.08	0.01	-1.63	-20.02	-0.4	46.8	48.97	0.71	0.12	0.1
NACL	SPR	15	0.09	0.07	0.12	-19.66	72.91	-0.02	0.06	0.01	64.69	21.54	-0.24	92.85	66.23	0.91	0.11	0.02
NACL	SUM	16	0.06	0.04	0.21	-37.36	47.01	-0.02	0.03	0	-7.67	-34.59	-0.6	56.43	51.12	0.75	0.04	0.04
NACL	FAL	13	0.07	0.05	0.56	-33.21	50.28	-0.02	0.04	0	-8.63	-25.05	-0.5	49.53	53.21	0.75	0.05	0.31
NACL	ALL	59	0.09	0.07	0.46	-28.73	55.06	-0.03	0.05	0.01	12.05	-14.51	-0.4	61.72	54.87	0.77	0.09	0.21
NH4	WIN	15	0.7	0.54	0.68	-22.44	39.45	-0.16	0.28	0.09	13.83	-11.34	-0.29	60.89	49.87	0.51	0.34	0.46
NH4	SPR	15	0.43	0.33	0.36	-23.21	58.71	-0.1	0.26	0.13	37.96	-1.04	-0.3	84.81	64.65	0.76	0.37	0.13
NH4	SUM	16	0.25	0.24	0.35	-6.07	39.33	-0.02	0.1	0.01	18.46	1.53	-0.06	51.3	43.43	0.42	0.12	0.12
NH4	FAL	13	0.3	0.28	0.81	-5.14	25.08	-0.02	0.08	0.01	5.68	0.29	-0.05	26.03	24.05	0.26	0.1	0.65
NH4	ALL	59	0.42	0.35	0.67	-17.28	42.22	-0.07	0.18	0.06	19.43	-2.67	-0.21	56.69	46.19	0.51	0.26	0.44
NO3	WIN	15	2.11	1.02	0.7	-51.9	53	-1.1	1.12	1.1	-36.96	-61.64	-1.08	52.22	72.54	1.1	1.52	0.48
NO3	SPR	15	0.83	0.37	0.47	-55.3	64.77	-0.46	0.54	0.53	-46.58	-76.49	-1.24	57.33	85.34	1.45	0.86	0.22
NO3	SUM	16	0.32	0.1	0.27	-68.69	68.69	-0.22	0.22	0.02	-62.92	-95.14	-2.19	62.92	95.14	2.19	0.27	0.07
NO3	FAL	13	0.63	0.25	0.96	-59.68	59.68	-0.37	0.37	0.11	-57.73	-83.79	-1.48	57.73	83.79	1.48	0.5	0.93
NO3	ALL	59	0.97	0.44	0.77	-55.22	57.89	-0.54	0.56	0.56	-51.02	-79.38	-1.23	57.64	84.4	1.29	0.92	0.6
OC	WIN	15	1.92	8.2	0.74	327.37	327.37	6.28	6.28	6.89	584.58	128.79	3.27	584.58	128.79	3.27	6.81	0.54
OC	SPR	15	0.73	3.13	0.57	328.02	328.02	2.4	2.4	0.96	403.05	125.43	3.28	403.05	125.43	3.28	2.59	0.32
OC	SUM	16	1.73	2.21	0.23	27.88	43.46	0.48	0.75	0.52	40.51	28.46	0.28	48.3	37.86	0.43	0.87	0.06
OC	FAL	15	1.6	4.64	0.5	189.78	189.78	3.04	3.04	4.72	209.43	87.45	1.9	209.43	87.45	1.9	3.73	0.25
OC	ALL	61	1.5	4.51	0.54	200.73	205.44	3.01	3.08	7.63	304.99	91.48	2.01	307.03	93.95	2.05	4.08	0.29
PM-2.5	WIN	15	11.99	19.01	0.67	58.61	59.08	7.03	7.08	29.27	91.7	47.18	0.59	92.26	47.76	0.59	8.87	0.46
PM-2.5	SPR	15	7.62	9.72	0.02	27.56	62.25	2.1	4.74	36.16	75.6	34.92	0.28	88.1	52.55	0.62	6.37	0
PM-2.5	SUM	16	8.69	8.16	0.56	-6.17	19.72	-0.54	1.71	5.56	-0.55	-3.15	-0.07	18.23	18.74	0.21	2.42	0.32
PM-2.5	FAL	13	11.23	12.54	0.06	11.65	58.31	1.31	6.55	85.82	43.27	19.07	0.12	63.91	51.82	0.58	9.36	0
PM-2.5	ALL	59	9.82	12.28	0.38	25.09	50.06	2.46	4.91	45.11	51.92	24.22	0.25	64.88	42	0.5	7.15	0.15
SO4	WIN	15	0.66	0.77	0.48	16.71	40.29	0.11	0.27	0.08	43.39	23.97	0.17	58.01	41.17	0.4	0.31	0.23
SO4	SPR	15	0.78	0.81	0.32	3.94	41.3	0.03	0.32	0.21	29.18	11.62	0.04	50.98	39.45	0.41	0.45	0.1
SO4	SUM	16	0.93	0.72	0.52	-23.2	29.03	-0.22	0.27	0.09	-17.58	-23.24	-0.3	25.29	30.31	0.38	0.36	0.27
SO4	FAL	13	0.69	0.75	0.33	8.55	24.35	0.06	0.17	0.04	11.69	7.57	0.09	24.3	21.91	0.24	0.21	0.11
SO4	ALL	59	0.77	0.76	0.35	-1.26	33.72	-0.01	0.26	0.12	16.26	4.41	-0.01	39.92	33.54	0.34	0.35	0.12

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 080310025																		
EC	WIN	21	0.97	2.04	0.67	109.39	109.39	1.07	1.07	0.41	147.17	73	1.09	147.17	73	1.09	1.24	0.44
EC	SPR	25	0.52	1.05	0.69	103.13	104.54	0.53	0.54	0.08	153.71	74.54	1.03	154.3	75.15	1.05	0.6	0.47
EC	SUM	25	0.67	1.06	0.27	58.32	58.63	0.39	0.39	0.08	79.26	47.52	0.58	79.44	47.7	0.59	0.48	0.07
EC	FAL	25	0.88	1.49	0.58	69.02	71.03	0.61	0.63	0.23	100.3	53.92	0.69	102.08	55.79	0.71	0.78	0.33
EC	ALL	96	0.75	1.38	0.67	84.11	85.05	0.63	0.64	0.25	118.98	61.8	0.84	119.65	62.49	0.85	0.81	0.44
NACL	WIN	19	0.08	0.1	0.3	23.46	59.91	0.02	0.05	0	65.92	26.25	0.23	86.23	53.62	0.6	0.07	0.09
NACL	SPR	22	0.06	0.06	0.13	6.91	77.15	0	0.04	0	69.66	19.72	0.07	99.91	63	0.77	0.07	0.02
NACL	SUM	23	0.06	0.03	0.02	-53.98	62.21	-0.03	0.04	0	-20.68	-55.07	-1.17	68.72	77.34	1.35	0.06	0
NACL	FAL	24	0.06	0.05	0.09	-17.59	55.56	-0.01	0.03	0	2.26	-20.06	-0.21	56.17	56.76	0.67	0.04	0.01
NACL	ALL	88	0.06	0.06	0.21	-10.19	63.44	-0.01	0.04	0	26.86	-9.27	-0.11	76.88	63.02	0.71	0.06	0.05
NH4	WIN	21	0.91	0.51	0.63	-44.32	57.63	-0.4	0.52	0.69	10.84	-20.39	-0.8	71.17	68.11	1.04	0.93	0.39
NH4	SPR	23	0.47	0.32	0.45	-31.96	43.45	-0.15	0.2	0.09	-2.81	-22.46	-0.47	49.32	51.09	0.64	0.33	0.2
NH4	SUM	22	0.32	0.22	0.55	-30.69	42.83	-0.1	0.14	0.02	-13.75	-28.84	-0.44	45.42	50.27	0.62	0.16	0.31
NH4	FAL	24	0.38	0.3	0.8	-20.01	40.08	-0.08	0.15	0.05	2.44	-12.47	-0.25	44.89	43.87	0.5	0.23	0.63
NH4	ALL	90	0.51	0.34	0.65	-34.53	48.57	-0.18	0.25	0.22	-0.9	-20.88	-0.53	52.28	52.94	0.74	0.5	0.43
NO3	WIN	21	2.64	1	0.67	-62.24	63.55	-1.64	1.68	5.15	-44.37	-70.18	-1.65	52.16	76.54	1.68	2.8	0.44
NO3	SPR	23	1.02	0.41	0.6	-59.53	59.53	-0.61	0.61	0.32	-59.87	-94.97	-1.47	59.87	94.97	1.47	0.83	0.36
NO3	SUM	24	0.3	0.08	0.35	-73.01	74.27	-0.22	0.22	0.02	-63.65	-103.68	-2.71	70.31	108.43	2.75	0.27	0.12
NO3	FAL	24	0.98	0.43	0.85	-56.66	56.66	-0.56	0.56	0.49	-60.56	-91.7	-1.31	60.56	91.7	1.31	0.89	0.73
NO3	ALL	92	1.19	0.46	0.74	-61.17	61.92	-0.73	0.74	1.66	-57.5	-90.73	-1.58	61.01	93.42	1.59	1.48	0.55
OC	WIN	21	1.7	8.9	0.74	422.5	422.5	7.2	7.2	8.82	554.59	137.63	4.23	554.59	137.63	4.23	7.79	0.55
OC	SPR	25	0.68	3.31	0.54	386.55	386.55	2.63	2.63	1.62	2300.68	131.28	3.87	2300.7	131.28	3.87	2.92	0.29
OC	SUM	25	1.67	2.17	0.75	29.93	38.99	0.5	0.65	0.36	47.73	31.49	0.3	53.43	38.04	0.39	0.78	0.56
OC	FAL	25	1.37	4.7	0.42	243.72	243.72	3.33	3.33	6.21	301.2	99.67	2.44	301.2	99.67	2.44	4.16	0.18
OC	ALL	96	1.34	4.6	0.47	242.89	245.83	3.26	3.3	9.54	811.32	98.45	2.43	812.8	100.16	2.46	4.49	0.22
PM-2.5	WIN	19	8.93	17.65	0.63	97.68	98.18	8.72	8.76	25.09	144.54	70.31	0.98	145.09	70.87	0.98	10.06	0.4
PM-2.5	SPR	23	6.4	9.11	0.11	42.48	60.76	2.72	3.89	17.09	59.46	34.46	0.42	69.62	48.18	0.61	4.95	0.01
PM-2.5	SUM	24	8.49	7.28	0.5	-14.26	26.35	-1.21	2.24	6.17	-6.35	-12.25	-0.17	27.89	28.39	0.31	2.76	0.25
PM-2.5	FAL	24	7.11	11.52	0.37	62.12	81.3	4.42	5.78	29.74	222.48	43.85	0.62	236.83	61.87	0.81	7.02	0.14
PM-2.5	ALL	90	7.68	11.07	0.38	44.14	64.87	3.39	4.98	31.28	103.35	32.08	0.44	119.01	51.34	0.65	6.54	0.15
SO4	WIN	21	0.7	0.63	0.55	-9.9	45.44	-0.07	0.32	0.18	28.95	9.7	-0.11	58.47	49.11	0.5	0.43	0.3
SO4	SPR	23	0.83	0.68	0.44	-19.04	34.55	-0.16	0.29	0.17	-3.86	-13.04	-0.24	32.88	34.62	0.43	0.44	0.19
SO4	SUM	25	0.92	0.63	0.66	-31.82	40.19	-0.29	0.37	0.09	32.88	-26.99	-0.47	95.38	53.93	0.59	0.42	0.43
SO4	FAL	24	0.71	0.59	0.44	-16.51	29.31	-0.12	0.21	0.06	-4.68	-15.02	-0.2	34.21	34.49	0.35	0.27	0.19
SO4	ALL	93	0.79	0.63	0.51	-20.62	37.26	-0.16	0.3	0.13	13.21	-12.17	-0.26	55.8	43.05	0.47	0.4	0.26

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 081230008																		
EC	WIN	14	0.93	0.84	0.48	-9.78	55.88	-0.09	0.52	0.5	111.68	3.76	-0.11	151.58	57.97	0.62	0.71	0.23
EC	SPR	15	0.28	0.33	0.87	21.17	34.03	0.06	0.09	0.01	45.01	29.87	0.21	50.99	36.63	0.34	0.11	0.76
EC	SUM	16	0.48	0.4	0.48	-17.02	28.83	-0.08	0.14	0.04	-5.58	-10.99	-0.21	24.82	27.56	0.35	0.21	0.23
EC	FAL	15	0.7	0.64	0.73	-8.7	27.19	-0.06	0.19	0.05	-2.34	-7.32	-0.1	27.61	28.32	0.3	0.23	0.54
EC	ALL	60	0.59	0.54	0.65	-7.41	38.89	-0.04	0.23	0.14	35.24	3.58	-0.08	61.64	37.12	0.42	0.38	0.42
NACL	WIN	15	0.06	0.07	0.37	17.02	72.07	0.01	0.04	0	131.9	35.56	0.17	160.96	75.73	0.72	0.05	0.13
NACL	SPR	14	0.04	0.05	0.4	29.3	64.25	0.01	0.02	0	56.78	31.81	0.29	71.04	52.12	0.64	0.03	0.16
NACL	SUM	16	0.04	0.02	0.24	-46.96	55.96	-0.02	0.02	0	-20.65	-40.9	-0.89	50.99	61.95	1.06	0.04	0.06
NACL	FAL	15	0.04	0.04	0.32	-6.26	34.33	0	0.01	0	3.57	-6.54	-0.07	39.07	36.49	0.37	0.02	0.1
NACL	ALL	60	0.05	0.04	0.37	-2.06	58.17	0	0.03	0	41.61	3.77	-0.02	80.18	56.74	0.59	0.04	0.14
NH4	WIN	15	1	0.67	0.81	-32.84	44.97	-0.33	0.45	0.27	92.12	-11.9	-0.49	139.24	50.59	0.67	0.61	0.65
NH4	SPR	14	0.44	0.37	0.67	-15.29	46.44	-0.07	0.2	0.06	9.1	-9.61	-0.18	56.18	52.25	0.55	0.25	0.45
NH4	SUM	16	0.28	0.21	0.72	-24.25	38.62	-0.07	0.11	0.01	-2.07	-18.73	-0.32	50.17	48	0.51	0.13	0.52
NH4	FAL	15	0.35	0.33	0.53	-5.72	47.32	-0.02	0.16	0.1	15.42	3.24	-0.06	39.19	34.04	0.5	0.31	0.28
NH4	ALL	60	0.51	0.39	0.79	-23.56	44.73	-0.12	0.23	0.12	28.46	-9.4	-0.31	71.09	46.15	0.59	0.37	0.63
NO3	WIN	15	3.02	1.64	0.77	-45.5	51.26	-1.37	1.55	2.94	-5.85	-34.2	-0.84	63.41	62.88	0.94	2.2	0.6
NO3	SPR	14	1.02	0.57	0.66	-44.1	57.5	-0.45	0.59	0.3	-48.77	-78.01	-0.79	60.89	86.53	1.03	0.71	0.44
NO3	SUM	16	0.65	0.15	0.89	-77.14	77.14	-0.5	0.5	0.08	-79.09	-132.49	-3.37	79.09	132.49	3.37	0.58	0.79
NO3	FAL	15	1.25	0.57	0.67	-54.73	54.73	-0.69	0.69	0.96	-56.63	-86.93	-1.21	56.63	86.93	1.21	1.2	0.44
NO3	ALL	60	1.48	0.73	0.81	-50.95	56.04	-0.75	0.83	1.2	-48.09	-83.81	-1.04	65.31	92.97	1.14	1.33	0.66
OC	WIN	14	1.59	3.26	0.41	105.05	108.11	1.67	1.72	4.89	61639.4	65.84	1.05	61643	70.07	1.08	2.77	0.17
OC	SPR	13	0.58	1.04	0.58	77.63	78.85	0.45	0.46	0.16	116.99	62.42	0.78	117.85	63.31	0.79	0.61	0.34
OC	SUM	16	1.15	1.06	0.62	-7.92	24.45	-0.09	0.28	0.1	-6.7	-10.5	-0.09	23.42	25.19	0.27	0.33	0.38
OC	FAL	15	1.17	1.84	0.77	57.85	59.54	0.68	0.7	0.48	55.45	38.33	0.58	57.29	40.28	0.6	0.97	0.59
OC	ALL	58	1.13	1.79	0.54	57.75	68.42	0.65	0.78	1.78	14917.2	36.9	0.58	14927	48.47	0.68	1.49	0.29
PM-2.5	WIN	15	10.7	10.18	0.64	-4.9	36.32	-0.52	3.89	31.35	95.62	1	-0.05	126.83	37.54	0.38	5.62	0.41
PM-2.5	SPR	13	6.6	5.23	0.19	-20.78	35.94	-1.37	2.37	7.87	-12.09	-22.05	-0.26	33.02	39.35	0.45	3.12	0.04
PM-2.5	SUM	16	7.16	4.57	0.42	-36.19	36.19	-2.59	2.59	6.36	-31.15	-39.79	-0.57	31.15	39.79	0.57	3.62	0.17
PM-2.5	FAL	15	8.04	7.26	0.6	-9.67	31.22	-0.78	2.51	7.6	-7.81	-13.56	-0.11	30.1	32.58	0.35	2.86	0.36
PM-2.5	ALL	59	8.16	6.82	0.63	-16.37	34.94	-1.34	2.85	14.03	11.21	-18.84	-0.2	55.62	37.28	0.42	3.98	0.39
SO4	WIN	15	0.69	0.61	0.64	-11.38	33.13	-0.08	0.23	0.07	11.87	-1.29	-0.13	45.24	38.66	0.37	0.27	0.41
SO4	SPR	14	0.74	0.68	0.47	-8.29	38.15	-0.06	0.28	0.17	7.52	-4.62	-0.09	42.06	40.25	0.42	0.42	0.22
SO4	SUM	16	0.85	0.55	0.86	-35.57	35.57	-0.3	0.3	0.03	-33.65	-42.29	-0.55	33.65	42.29	0.55	0.35	0.74
SO4	FAL	15	0.56	0.55	0.18	-1.11	25.93	-0.01	0.15	0.04	4.69	-0.93	-0.01	27.2	25.79	0.26	0.19	0.03
SO4	ALL	60	0.71	0.6	0.53	-16.3	33.71	-0.12	0.24	0.09	-3.08	-12.91	-0.19	36.9	36.78	0.4	0.32	0.28

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 090090027																		
EC	WIN	23	1.3	1.15	0.78	-11.06	35.67	-0.14	0.46	0.34	10.87	-3.53	-0.12	46.53	41	0.4	0.6	0.61
EC	SPR	23	0.69	0.58	0.52	-16.22	35.62	-0.11	0.25	0.09	-3.53	-12.99	-0.19	36.36	37.99	0.43	0.33	0.27
EC	SUM	24	0.93	0.57	0.84	-37.97	40.42	-0.35	0.37	0.13	-27.61	-37.16	-0.61	34.48	43.2	0.65	0.5	0.7
EC	FAL	25	1.26	0.8	0.72	-36.49	43.29	-0.46	0.55	0.41	-27.67	-39.58	-0.57	36.9	47.78	0.68	0.79	0.51
EC	ALL	95	1.05	0.77	0.73	-25.96	39.14	-0.27	0.41	0.27	-12.48	-23.8	-0.35	38.49	42.61	0.53	0.58	0.53
NACL	WIN	22	0.12	0.12	0.1	0.56	69.47	0	0.08	0.02	38.32	7.53	0.01	69.46	53.3	0.69	0.15	0.01
NACL	SPR	22	0.27	0.49	0.98	84	107.49	0.23	0.29	0.55	91.46	32.96	0.84	113.16	61.47	1.07	0.77	0.95
NACL	SUM	24	0.12	0.19	0.08	58.71	122.91	0.07	0.15	0.07	110.2	3.24	0.59	159.32	80.54	1.23	0.27	0.01
NACL	FAL	25	0.11	0.14	0.56	22.29	71.67	0.02	0.08	0.02	57.55	3	0.22	94.26	57.5	0.72	0.15	0.32
NACL	ALL	93	0.15	0.23	0.92	51.56	96.73	0.08	0.15	0.16	74.61	11.22	0.52	109.65	63.39	0.97	0.41	0.84
NH4	WIN	22	1.06	1.1	0.76	3.7	29.2	0.04	0.31	0.32	21.81	10.86	0.04	35.84	27.79	0.29	0.57	0.57
NH4	SPR	24	0.67	0.71	0.88	5.35	30.92	0.04	0.21	0.06	34.39	11.48	0.05	56.72	44.19	0.31	0.25	0.77
NH4	SUM	23	0.61	0.52	0.75	-15.42	51.73	-0.09	0.32	0.19	58.3	5.6	-0.18	98.15	61.84	0.61	0.44	0.56
NH4	FAL	25	0.62	0.73	0.8	17.74	43.41	0.11	0.27	0.09	171.95	39.23	0.18	187.09	61.2	0.43	0.32	0.64
NH4	ALL	94	0.74	0.76	0.79	3.33	37.37	0.02	0.27	0.17	73.88	17.27	0.03	96.64	49.19	0.37	0.41	0.62
NO3	WIN	22	1.85	2.36	0.67	27.18	53.52	0.5	0.99	2.18	51.5	22.01	0.27	70.49	47.06	0.54	1.56	0.45
NO3	SPR	24	0.93	0.86	0.61	-7.67	45.71	-0.07	0.42	0.39	13.99	-4.4	-0.08	52.98	46.49	0.5	0.63	0.38
NO3	SUM	24	0.53	0.23	0.39	-57.23	70.61	-0.3	0.37	0.13	-42.96	-84.36	-1.34	72.49	104.18	1.65	0.47	0.15
NO3	FAL	25	0.93	0.87	0.74	-6.36	50.51	-0.06	0.47	0.38	-0.14	-26.49	-0.07	61.36	65.34	0.54	0.62	0.55
NO3	ALL	95	1.04	1.05	0.74	0.67	53.24	0.01	0.55	0.82	4.57	-24.3	0.01	64.17	66.16	0.53	0.9	0.55
OC	WIN	23	1.9	5.93	0.86	212.43	212.43	4.03	4.03	6.54	261.25	105.56	2.12	261.25	105.56	2.12	4.77	0.74
OC	SPR	23	1.1	2.36	0.31	115.36	134.35	1.27	1.48	1.94	179.93	71.49	1.15	187.78	80.45	1.34	1.88	0.09
OC	SUM	24	1.79	1.76	0.87	-1.83	19.95	-0.03	0.36	0.2	4.7	-0.81	-0.02	25.69	23.95	0.2	0.45	0.75
OC	FAL	25	1.98	2.49	0.81	25.84	46.15	0.51	0.91	1	62.34	28.86	0.26	78.81	51.14	0.46	1.12	0.65
OC	ALL	95	1.7	3.11	0.58	82.98	97.98	1.41	1.66	4.78	124.4	50.25	0.83	135.94	64.54	0.98	2.6	0.33
PM-2.5	WIN	22	11.91	15.18	0.85	27.44	38.49	3.27	4.58	24.46	36.36	25.33	0.27	44.16	35.12	0.38	5.93	0.72
PM-2.5	SPR	23	8.15	8.2	0.66	0.58	29.06	0.05	2.37	9.68	8.13	0.61	0.01	30.69	29.01	0.29	3.11	0.44
PM-2.5	SUM	25	10.84	6.5	0.78	-40.02	42.57	-4.34	4.61	11.58	-35.62	-48.61	-0.67	41.55	53.36	0.71	5.51	0.61
PM-2.5	FAL	25	10.67	8.74	0.79	-18.09	26.57	-1.93	2.84	11.69	-13.88	-20.52	-0.22	25.37	30.75	0.32	3.93	0.63
PM-2.5	ALL	95	10.39	9.51	0.71	-8.48	34.6	-0.88	3.6	21.76	-2.64	-12.18	-0.09	35.27	37.29	0.38	4.75	0.51
SO4	WIN	22	1.93	1.3	0.63	-32.73	41.01	-0.63	0.79	0.65	-27.72	-38.73	-0.49	38.12	47.49	0.61	1.02	0.4
SO4	SPR	24	1.75	1.76	0.88	0.6	23.95	0.01	0.42	0.28	4.13	0.4	0.01	24.44	23.44	0.24	0.53	0.77
SO4	SUM	24	2.17	1.76	0.7	-18.93	40.13	-0.41	0.87	1.45	1.31	-15.47	-0.23	44.04	42.24	0.49	1.27	0.49
SO4	FAL	25	1.8	1.62	0.79	-10.3	24.5	-0.19	0.44	0.51	9.79	-3.47	-0.11	34.65	29.96	0.27	0.74	0.62
SO4	ALL	95	1.91	1.62	0.73	-15.5	32.72	-0.3	0.63	0.78	-2.47	-13.69	-0.18	35.25	35.47	0.39	0.93	0.53

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 100010003																		
EC	WIN	14	0.38	0.49	0.76	27.97	36.47	0.11	0.14	0.02	41.01	29.25	0.28	45.48	34.38	0.36	0.17	0.58
EC	SPR	14	0.3	0.33	0.59	9.09	37.3	0.03	0.11	0.02	8.83	-0.4	0.09	38.02	38.29	0.37	0.13	0.34
EC	SUM	16	0.43	0.37	0.7	-13.43	23.96	-0.06	0.1	0.01	-11.93	-16.33	-0.16	23.55	26.11	0.28	0.13	0.49
EC	FAL	15	0.34	0.37	0.87	9.53	22.49	0.03	0.08	0.01	16.66	10.89	0.1	28.85	24.46	0.22	0.09	0.76
EC	ALL	59	0.37	0.39	0.71	6.67	29.35	0.02	0.11	0.02	12.83	5.19	0.07	33.54	30.54	0.29	0.13	0.5
NACL	WIN	13	0.04	0.15	0.45	248.87	254.88	0.11	0.11	0.04	280.62	74.54	2.49	285.29	79.63	2.55	0.22	0.2
NACL	SPR	14	0.14	0.6	0.16	326.32	342.54	0.46	0.48	0.74	1411.22	56.82	3.26	1430.8	86.76	3.43	0.98	0.03
NACL	SUM	1	0.02	0.04	0	102.83	102.83	0.02	0.02	0	102.83	67.91	1.03	102.83	67.91	1.03	0.02	0
NACL	FAL	14	0.11	0.41	0.98	288.46	305.29	0.31	0.32	0.39	151.42	41.62	2.88	176.22	76.46	3.05	0.69	0.95
NACL	ALL	42	0.1	0.39	0.57	300.38	315.29	0.29	0.3	0.41	610.19	57.5	3	626.43	80.67	3.15	0.7	0.33
NH4	WIN	13	1.28	1.06	0.81	-17.15	27.11	-0.22	0.35	0.26	-4.78	-10.56	-0.21	27.6	29.08	0.33	0.55	0.66
NH4	SPR	14	0.99	0.83	0.85	-16.87	30.69	-0.17	0.3	0.1	-10.66	-24.3	-0.2	37.89	46.41	0.37	0.35	0.72
NH4	SUM	1	0.45	0.36	0	-19.34	19.34	-0.09	0.09	0	-19.34	-21.41	-0.24	19.34	21.41	0.24	0.09	0
NH4	FAL	14	0.43	0.65	0.85	52.42	72.05	0.22	0.31	0.07	397.54	84.11	0.52	403.55	90.83	0.72	0.35	0.72
NH4	ALL	42	0.88	0.83	0.83	-5.78	35.65	-0.05	0.31	0.17	127.02	16.16	-0.06	156.15	55.26	0.38	0.42	0.69
NO3	WIN	13	2.1	2.28	0.61	8.49	48.71	0.18	1.03	1.53	36.54	10.17	0.08	69.03	54.43	0.49	1.25	0.38
NO3	SPR	14	1.27	1.26	0.82	-0.96	36.4	-0.01	0.46	0.31	7.68	-5.31	-0.01	43.05	41.94	0.37	0.56	0.68
NO3	SUM	1	0.16	0.05	0	-69.63	69.63	-0.11	0.11	0	-69.63	-106.83	-2.29	69.63	106.83	2.29	0.11	0
NO3	FAL	14	0.83	0.9	0.54	8.56	58.7	0.07	0.49	0.38	86.05	19.24	0.09	120.12	68.46	0.59	0.62	0.3
NO3	ALL	42	1.36	1.43	0.74	5.32	46.96	0.07	0.64	0.71	40.89	5.25	0.05	77.42	56.19	0.47	0.85	0.55
OC	WIN	14	1.14	2.28	0.82	99.89	99.89	1.14	1.14	0.35	134.99	71.93	1	134.99	71.93	1	1.28	0.68
OC	SPR	14	1.16	1.24	0.22	6.82	51.81	0.08	0.6	0.64	28.3	11.28	0.07	52.05	44.83	0.52	0.81	0.05
OC	SUM	16	2	1.71	0.74	-14.48	25.08	-0.29	0.5	0.4	-11.33	-17.05	-0.17	25.06	28.28	0.29	0.7	0.55
OC	FAL	15	0.87	1.1	0.84	26.45	31.61	0.23	0.28	0.09	44.12	23.38	0.26	48.89	28.54	0.32	0.37	0.71
OC	ALL	59	1.31	1.58	0.57	20.53	47.24	0.27	0.62	0.64	46.89	21.06	0.21	63.61	42.63	0.47	0.84	0.33
PM-2.5	WIN	14	8.41	9.15	0.82	8.89	26.08	0.75	2.19	7.05	64.95	18.1	0.09	75.65	29.92	0.26	2.76	0.68
PM-2.5	SPR	14	8.73	7.23	0.21	-17.2	29.35	-1.5	2.56	12.06	-10.91	-17.57	-0.21	24.54	29.95	0.35	3.78	0.04
PM-2.5	SUM	1	7.4	3.98	0	-46.18	46.18	-3.42	3.42	0	-46.18	-60.05	-0.86	46.18	60.05	0.86	3.42	0
PM-2.5	FAL	15	5.69	6.04	0.48	6.13	31.62	0.35	1.8	7.36	41.14	7.94	0.06	61.8	32.33	0.32	2.74	0.23
PM-2.5	ALL	44	7.56	7.36	0.62	-2.63	29.15	-0.2	2.2	9.75	30.17	1.51	-0.03	54	31.44	0.3	3.13	0.38
SO4	WIN	13	2.14	1.38	0.69	-35.51	39.21	-0.76	0.84	0.42	-30.83	-41.31	-0.55	36.3	45.96	0.61	1	0.48
SO4	SPR	14	2.2	1.75	0.8	-20.49	27	-0.45	0.59	0.33	-11.51	-18.51	-0.26	30.07	32.85	0.34	0.73	0.64
SO4	SUM	1	1.27	1.05	0	-17.01	17.01	-0.22	0.22	0	-17.01	-18.59	-0.2	17.01	18.59	0.2	0.22	0
SO4	FAL	14	1.54	1.52	0.75	-1.13	33.13	-0.02	0.51	0.56	22.42	6.5	-0.01	47.03	36.64	0.34	0.75	0.56
SO4	ALL	42	1.94	1.54	0.71	-20.46	32.64	-0.4	0.63	0.52	-6.31	-17.23	-0.26	37.34	37.83	0.41	0.82	0.51

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 100032004																		
EC	WIN	19	0.78	1.12	0.92	43.83	45.63	0.34	0.35	0.03	64.3	43.92	0.44	65.54	45.24	0.46	0.39	0.84
EC	SPR	28	0.47	0.61	0.29	30.39	50.41	0.14	0.24	0.09	182.02	27.72	0.3	194.51	43.32	0.5	0.33	0.08
EC	SUM	27	0.7	0.67	0.71	-4.2	21.3	-0.03	0.15	0.03	-0.25	-2.95	-0.04	20.85	20.68	0.22	0.18	0.5
EC	FAL	25	0.8	0.96	0.87	19.14	26.51	0.15	0.21	0.06	33.04	20.63	0.19	39.69	28.92	0.27	0.29	0.75
EC	ALL	99	0.68	0.81	0.78	20.18	33.94	0.14	0.23	0.07	72.1	20.67	0.2	83.3	33.88	0.34	0.3	0.61
NACL	WIN	20	0.12	0.15	0.55	27.44	77.71	0.03	0.09	0.02	87.7	38.32	0.27	109.34	66.62	0.78	0.13	0.3
NACL	SPR	29	0.18	0.23	0.65	26.06	84.27	0.05	0.15	0.08	393.48	43.31	0.26	411.09	67.61	0.84	0.29	0.42
NACL	SUM	27	0.06	0.08	0.45	33.97	76.58	0.02	0.05	0.01	34.85	-4.59	0.34	79.38	54.59	0.77	0.08	0.21
NACL	FAL	27	0.08	0.21	0.83	167.29	175.15	0.13	0.14	0.11	101.91	45.93	1.67	114.09	59.91	1.75	0.36	0.69
NACL	ALL	103	0.11	0.17	0.51	53.71	98.65	0.06	0.11	0.06	163.66	30.47	0.54	187.69	61.98	0.99	0.25	0.26
NH4	WIN	20	1.75	1.38	0.66	-20.76	40.18	-0.36	0.7	0.73	282.06	-7.29	-0.26	326.62	48.62	0.51	0.93	0.44
NH4	SPR	29	0.98	0.91	0.85	-7.76	26.4	-0.08	0.26	0.1	-0.61	-11.04	-0.08	34.22	34.83	0.29	0.33	0.72
NH4	SUM	26	1.14	0.99	0.9	-12.96	30.75	-0.15	0.35	0.19	7.77	-2.1	-0.15	38.77	35.08	0.35	0.46	0.81
NH4	FAL	27	0.65	0.94	0.76	45.48	51.41	0.3	0.33	0.17	71.83	42.26	0.45	74.88	45.55	0.51	0.5	0.58
NH4	ALL	102	1.08	1.03	0.76	-4.82	35.88	-0.05	0.39	0.32	76.12	6.08	-0.05	103.47	40.44	0.38	0.56	0.58
NO3	WIN	20	3.43	3.13	0.44	-8.66	45.21	-0.3	1.55	4.3	164.73	-3.79	-0.09	208.74	55.5	0.49	2.09	0.19
NO3	SPR	30	1.19	1.23	0.73	3.22	45.88	0.04	0.55	0.58	120.37	-11.42	0.03	170.26	58.15	0.46	0.76	0.53
NO3	SUM	27	0.61	0.34	0.59	-43.47	60.19	-0.26	0.37	0.15	-41.25	-70.86	-0.77	62.63	86.43	1.06	0.47	0.34
NO3	FAL	28	1.1	1.5	0.7	35.91	63.22	0.4	0.7	1.26	36.88	9.27	0.36	69.98	54.45	0.63	1.19	0.49
NO3	ALL	105	1.44	1.44	0.7	-0.56	50.66	-0.01	0.73	1.44	65	-19.73	-0.01	123.17	63.93	0.51	1.2	0.49
OC	WIN	19	1.75	4.96	0.86	183.69	183.69	3.21	3.21	2.21	216.58	99.33	1.84	216.58	99.33	1.84	3.54	0.73
OC	SPR	27	1.2	1.98	0.2	64.81	82.6	0.78	0.99	1.04	95.79	42.09	0.65	110.17	59.25	0.83	1.28	0.04
OC	SUM	27	2.36	2.14	0.86	-9.06	17.06	-0.21	0.4	0.24	-8.74	-11.41	-0.1	18.13	19.55	0.19	0.53	0.74
OC	FAL	25	1.6	2.44	0.82	52.14	57.55	0.83	0.92	0.97	72.59	42.43	0.52	75.54	45.72	0.58	1.29	0.68
OC	ALL	98	1.73	2.72	0.54	57.35	71.86	0.99	1.24	2.4	84.49	38.53	0.57	96.61	52.63	0.72	1.84	0.29
PM-2.5	WIN	20	14.78	15.68	0.8	6.13	25.38	0.91	3.75	19.93	50.75	14.6	0.06	63.5	29.33	0.25	4.56	0.64
PM-2.5	SPR	30	8.67	8.61	0.33	-0.64	35.94	-0.06	3.12	17.49	331.65	-0.11	-0.01	360.33	38.94	0.36	4.18	0.11
PM-2.5	SUM	27	12.9	9.11	0.81	-29.33	35.69	-3.78	4.6	17.25	-7.43	-29.18	-0.42	50.69	42.85	0.51	5.62	0.66
PM-2.5	FAL	27	8.37	10.07	0.84	20.3	28.19	1.7	2.36	9.28	29.54	19.33	0.2	36.01	26.35	0.28	3.49	0.71
PM-2.5	ALL	104	10.86	10.48	0.71	-3.52	31.55	-0.38	3.43	20.25	111.17	0.22	-0.04	138.66	34.84	0.33	4.52	0.5
SO4	WIN	20	2.4	1.48	0.74	-38.25	42.45	-0.92	1.02	0.99	73.57	-31.79	-0.62	138.27	52.85	0.69	1.35	0.55
SO4	SPR	30	2.11	1.75	0.62	-17.21	32.87	-0.36	0.69	0.65	157.91	-16.04	-0.21	201.63	39.13	0.4	0.89	0.38
SO4	SUM	27	3.39	2.69	0.89	-20.54	32.17	-0.7	1.09	1.47	389.69	-15.93	-0.26	435.8	41.27	0.4	1.4	0.79
SO4	FAL	28	1.63	1.62	0.67	-0.88	30.47	-0.01	0.5	0.42	10.91	2.74	-0.01	34.85	31.24	0.31	0.65	0.45
SO4	ALL	105	2.37	1.91	0.82	-19.5	34.02	-0.46	0.81	0.98	162.24	-14	-0.24	205.3	40.19	0.42	1.09	0.67

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 110010043																		
EC	WIN	23	0.62	1.95	0.71	213.76	213.76	1.33	1.33	0.37	245.67	105.42	2.14	245.67	105.42	2.14	1.46	0.5
EC	SPR	24	0.4	1.04	0.03	158.39	158.39	0.64	0.64	0.17	185.22	84.2	1.58	185.22	84.2	1.58	0.76	0
EC	SUM	23	0.59	1.15	0.62	94.86	94.86	0.56	0.56	0.08	111.57	64.97	0.95	111.57	64.97	0.95	0.63	0.38
EC	FAL	24	0.81	1.74	0.91	113.12	113.12	0.92	0.92	0.18	141.53	76.68	1.13	141.53	76.68	1.13	1.01	0.83
EC	ALL	94	0.61	1.47	0.73	141.68	141.68	0.86	0.86	0.29	170.84	82.76	1.42	170.84	82.76	1.42	1.02	0.53
NACL	WIN	22	0.06	0.16	0.58	163.77	176.12	0.1	0.11	0.01	250.55	92.39	1.64	255.24	97.79	1.76	0.14	0.33
NACL	SPR	25	0.1	0.17	0.49	74.08	112.69	0.07	0.11	0.02	381.89	67.87	0.74	396.27	87.32	1.13	0.17	0.24
NACL	SUM	23	0.05	0.06	0.62	20.97	69.5	0.01	0.03	0	18.96	-8.9	0.21	63.81	54.54	0.7	0.06	0.38
NACL	FAL	24	0.08	0.16	0.5	100.67	140.04	0.08	0.11	0.06	110.92	35.51	1.01	134.03	71.02	1.4	0.26	0.25
NACL	ALL	94	0.07	0.14	0.48	90.64	125.91	0.07	0.09	0.03	193.17	46.56	0.91	214.96	77.59	1.26	0.18	0.23
NH4	WIN	24	1.28	1.53	0.79	19.94	29.04	0.26	0.37	0.24	27.95	16.8	0.2	37.7	28.33	0.29	0.55	0.63
NH4	SPR	24	0.88	0.85	0.77	-3.13	25.74	-0.03	0.23	0.11	-6.26	-15.19	-0.03	29.65	32.53	0.27	0.33	0.59
NH4	SUM	23	1	0.86	0.79	-13.84	30.44	-0.14	0.31	0.17	-1.19	-8.95	-0.16	32.66	33.28	0.35	0.44	0.63
NH4	FAL	24	0.59	0.84	0.71	43.39	55.64	0.25	0.33	0.15	77.87	41.14	0.43	84.83	49.5	0.56	0.46	0.5
NH4	ALL	95	0.94	1.02	0.76	9.44	32.84	0.09	0.31	0.2	24.86	8.63	0.09	46.35	35.94	0.33	0.45	0.58
NO3	WIN	24	2.27	3.21	0.63	41.74	59.19	0.95	1.34	2.35	66.16	31.37	0.42	80.71	53.49	0.59	1.8	0.4
NO3	SPR	25	0.97	1.02	0.55	5.45	60.93	0.05	0.59	0.66	102.93	-19.97	0.05	164.49	71.74	0.61	0.81	0.3
NO3	SUM	23	0.46	0.13	0.2	-72.18	77.57	-0.33	0.36	0.1	-67.46	-114.43	-2.6	71.98	118.02	2.79	0.46	0.04
NO3	FAL	24	0.88	1.34	0.77	52.92	72.47	0.46	0.63	0.91	48.51	21.45	0.53	72.05	52.79	0.72	1.06	0.6
NO3	ALL	96	1.15	1.44	0.75	24.97	63.86	0.29	0.73	1.23	39.31	-19.41	0.25	98.27	73.53	0.64	1.15	0.57
OC	WIN	23	1.53	7.17	0.65	368.98	368.98	5.64	5.64	5.21	432.45	131.16	3.69	432.45	131.16	3.69	6.09	0.43
OC	SPR	24	1.18	2.7	0.21	129.33	145.83	1.52	1.71	3.25	213.36	68.38	1.29	222.33	78.77	1.46	2.36	0.04
OC	SUM	23	2.5	2.75	0.82	10.04	23.57	0.25	0.59	0.47	15.23	11.12	0.1	25.47	22.65	0.24	0.73	0.68
OC	FAL	24	1.9	3.93	0.75	107.15	108.97	2.03	2.07	3.97	119.65	63.48	1.07	120.65	64.54	1.09	2.85	0.56
OC	ALL	94	1.77	4.12	0.32	132.77	140.74	2.35	2.49	7.16	194.56	68.48	1.33	199.61	74.22	1.41	3.56	0.1
PM-2.5	WIN	22	11.38	21	0.83	84.62	84.62	9.63	9.63	21.81	93.16	59.63	0.85	93.16	59.63	0.85	10.7	0.69
PM-2.5	SPR	25	8.19	9.76	0.06	19.22	50.24	1.57	4.11	22.5	28.77	12.18	0.19	54.04	44.81	0.5	5	0
PM-2.5	SUM	23	13.13	10.05	0.88	-23.42	24.74	-3.07	3.25	7.14	-20.89	-25.44	-0.31	23.18	27.53	0.32	4.07	0.78
PM-2.5	FAL	25	8.78	12.31	0.81	40.17	44.21	3.53	3.88	19.17	44.62	30.12	0.4	47.93	33.82	0.44	5.62	0.65
PM-2.5	ALL	95	10.28	13.11	0.57	27.51	49.81	2.83	5.12	37.43	35.83	18.78	0.28	54.02	41.17	0.5	6.74	0.32
SO4	WIN	24	2.13	1.75	0.51	-18.13	38.21	-0.39	0.81	0.89	-12.44	-21.27	-0.22	35.64	39.39	0.47	1.02	0.26
SO4	SPR	25	2.06	1.74	0.56	-15.3	32.23	-0.32	0.66	0.6	78.03	-14.08	-0.18	120.83	41.06	0.38	0.84	0.31
SO4	SUM	23	3.4	2.66	0.81	-21.61	29.85	-0.73	1.01	1.72	-15.48	-22.17	-0.28	26.98	32.4	0.38	1.5	0.65
SO4	FAL	24	1.66	1.5	0.74	-9.95	25.56	-0.17	0.42	0.33	-1.32	-7.08	-0.11	25.78	26.94	0.28	0.6	0.55
SO4	ALL	96	2.3	1.9	0.76	-17.22	31.57	-0.4	0.73	0.92	13.17	-16.06	-0.21	53.29	35.04	0.38	1.04	0.58

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 120111002																		
EC	WIN	27	0.44	1.01	0.5	127.14	127.14	0.56	0.56	0.07	166.95	81.13	1.27	166.95	81.13	1.27	0.62	0.26
EC	SPR	29	0.4	0.8	0.6	99.54	101.33	0.4	0.41	0.06	119.76	67.8	1	121.14	69.33	1.01	0.47	0.36
EC	SUM	31	0.31	0.95	0.52	211.06	211.06	0.65	0.65	0.11	278.68	102.54	2.11	278.68	102.54	2.11	0.73	0.27
EC	FAL	28	0.36	1	0.68	174.63	174.79	0.64	0.64	0.07	231.14	99.95	1.75	231.18	99.99	1.75	0.68	0.47
EC	ALL	115	0.38	0.94	0.54	149.24	149.76	0.56	0.56	0.09	200.8	88.12	1.49	201.16	88.52	1.5	0.63	0.29
NACL	WIN	28	0.51	0.77	0.64	50.46	79.01	0.26	0.41	0.28	117.81	28.46	0.5	151.65	77.1	0.79	0.59	0.41
NACL	SPR	28	0.5	0.67	0.79	33.19	69.19	0.17	0.35	0.34	59.36	21.99	0.33	84.13	57.74	0.69	0.61	0.62
NACL	SUM	30	0.51	0.54	0.4	5.21	72.4	0.03	0.37	0.27	13.12	-27.27	0.05	82.37	75.17	0.72	0.52	0.16
NACL	FAL	29	0.82	0.78	0.8	-5.13	39.33	-0.04	0.32	0.26	-13.66	-26.97	-0.05	38.84	47.36	0.41	0.51	0.64
NACL	ALL	115	0.59	0.69	0.68	17.03	61.53	0.1	0.36	0.3	43.12	-1.63	0.17	88.69	64.38	0.62	0.56	0.47
NH4	WIN	26	0.46	0.43	0.54	-5.93	48.39	-0.03	0.22	0.08	33.35	-12.91	-0.06	86.62	68.13	0.51	0.29	0.29
NH4	SPR	28	0.58	0.36	0.56	-38.03	47.55	-0.22	0.27	0.07	-39.7	-67.96	-0.61	52.18	77.81	0.77	0.34	0.31
NH4	SUM	30	0.16	0.1	0.34	-33.55	74.45	-0.05	0.12	0.03	24.92	-41.69	-0.5	107.3	96.81	1.12	0.18	0.12
NH4	FAL	26	0.13	0.19	0.72	46.23	72.8	0.06	0.09	0.01	107.81	-3.47	0.46	156.6	78.33	0.73	0.13	0.51
NH4	ALL	110	0.33	0.27	0.64	-19.14	53.66	-0.06	0.18	0.06	30.06	-32.54	-0.24	100.03	80.83	0.66	0.25	0.41
NO3	WIN	28	0.55	0.54	0.08	-0.46	75.41	0	0.41	0.23	21.59	-17.9	0	84.46	78.82	0.76	0.48	0.01
NO3	SPR	28	0.55	0.28	0.01	-49.87	71.52	-0.28	0.4	0.1	-42.01	-85.01	-0.99	76.48	105.12	1.43	0.42	0
NO3	SUM	31	0.4	0.36	0.3	-9.56	84.38	-0.04	0.34	0.16	5.39	-42.87	-0.11	90.61	93.08	0.93	0.4	0.09
NO3	FAL	29	0.33	0.44	0.16	32.45	105.55	0.11	0.35	0.23	33.68	-25.73	0.32	110.73	90.39	1.06	0.49	0.02
NO3	ALL	116	0.46	0.41	0.05	-11.14	81.86	-0.05	0.37	0.2	4.93	-42.73	-0.13	90.75	91.87	0.92	0.45	0
OC	WIN	26	0.99	2.76	0.53	179.35	179.35	1.77	1.77	0.8	366.54	102.51	1.79	366.54	102.51	1.79	1.99	0.28
OC	SPR	29	1.21	1.95	0.78	61.27	85.83	0.74	1.04	0.74	151.91	68.14	0.61	159.47	77.02	0.86	1.14	0.61
OC	SUM	30	0.59	2.08	0.31	249.59	255.34	1.48	1.52	0.62	440.01	114.08	2.5	442.21	116.7	2.55	1.68	0.09
OC	FAL	26	0.53	2.19	0.52	310.99	310.99	1.65	1.65	0.24	1973.99	127.97	3.11	1974	127.97	3.11	1.73	0.27
OC	ALL	111	0.83	2.23	0.49	167.71	178.15	1.4	1.48	0.77	706.84	102.62	1.68	709.41	105.65	1.78	1.65	0.24
PM-2.5	WIN	27	7.92	9.79	0.32	23.58	38.88	1.87	3.08	9.47	34.73	23.6	0.24	44.56	35.22	0.39	3.6	0.1
PM-2.5	SPR	29	9.41	8.23	0.64	-12.56	20.68	-1.18	1.95	5.62	-8.68	-12.09	-0.14	18.78	20.8	0.24	2.65	0.41
PM-2.5	SUM	30	7.93	7.13	0.02	-9.99	33.78	-0.79	2.68	15.71	5.82	-3	-0.11	34.21	33.34	0.38	4.04	0
PM-2.5	FAL	29	6.53	7.64	0.43	17.01	29.67	1.11	1.94	4.68	28.23	19.05	0.17	36.67	28.64	0.3	2.43	0.18
PM-2.5	ALL	115	7.95	8.16	0.31	2.69	30.21	0.21	2.4	10.52	14.6	6.51	0.03	33.37	29.43	0.3	3.25	0.1
SO4	WIN	28	1.7	1.93	0.55	13.58	32.08	0.23	0.54	0.46	24.51	15.61	0.14	36.27	29.43	0.32	0.71	0.3
SO4	SPR	28	2.47	1.86	0.51	-24.9	33.26	-0.62	0.82	0.64	-19.8	-28.06	-0.33	32.64	37.87	0.44	1.01	0.26
SO4	SUM	31	1.48	0.74	0.58	-50.22	50.71	-0.74	0.75	0.29	-46.12	-64.45	-1.01	46.99	65.27	1.02	0.92	0.34
SO4	FAL	29	1.26	1.01	0.61	-19.97	28.5	-0.25	0.36	0.15	-14.91	-22.38	-0.25	29.18	33.82	0.36	0.46	0.37
SO4	ALL	116	1.72	1.36	0.59	-20.64	36.13	-0.35	0.62	0.52	-14.92	-25.82	-0.26	36.49	42.14	0.46	0.8	0.35

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 120573002																		
EC	WIN	29	0.54	0.88	0.71	61.32	62.19	0.33	0.34	0.08	78.94	48.31	0.61	79.58	48.97	0.62	0.44	0.51
EC	SPR	30	0.48	0.73	0.61	50.41	61.43	0.24	0.3	0.06	73.35	43.85	0.5	79.87	51.82	0.61	0.34	0.37
EC	SUM	31	0.35	0.81	0.32	127.88	131.57	0.45	0.47	0.07	188.19	78.37	1.28	190.48	80.9	1.32	0.52	0.1
EC	FAL	30	0.42	0.73	0.46	73.61	85.26	0.31	0.36	0.1	103.69	53.84	0.74	109.88	61.17	0.85	0.44	0.21
EC	ALL	120	0.45	0.79	0.54	74.82	81.53	0.34	0.37	0.08	111.95	56.34	0.75	115.88	60.98	0.82	0.44	0.3
NACL	WIN	29	0.23	0.5	0.7	117.76	128.61	0.27	0.3	0.11	197.69	60.72	1.18	209.48	75.32	1.29	0.43	0.49
NACL	SPR	28	0.26	0.56	0.57	115.31	150.62	0.3	0.39	0.32	159.67	64.21	1.15	173.99	85.3	1.51	0.64	0.32
NACL	SUM	30	0.21	0.32	0.4	51.44	113.94	0.11	0.24	0.1	63.94	3.99	0.51	113.58	82.24	1.14	0.33	0.16
NACL	FAL	27	0.29	0.54	0.6	84.76	113.24	0.25	0.33	0.4	78.52	8.64	0.85	118.02	63.82	1.13	0.68	0.36
NACL	ALL	114	0.25	0.48	0.59	93.02	126.65	0.23	0.31	0.23	124.93	34.31	0.93	153.86	76.87	1.27	0.54	0.34
NH4	WIN	27	0.64	0.75	0.53	18.01	52.55	0.12	0.34	0.19	78.4	27.32	0.18	98.34	53.14	0.53	0.45	0.28
NH4	SPR	28	0.64	0.6	0.54	-5.91	47.15	-0.04	0.3	0.18	-11.3	-32.9	-0.06	47.03	56.3	0.5	0.43	0.29
NH4	SUM	30	0.36	0.2	0.27	-43.72	68.05	-0.16	0.25	0.09	11.69	-35.87	-0.78	87.8	83.12	1.21	0.35	0.07
NH4	FAL	25	0.24	0.42	0.51	74.47	99.02	0.18	0.24	0.09	218.49	34.65	0.74	242.47	72.04	0.99	0.35	0.26
NH4	ALL	110	0.47	0.49	0.53	3.43	59.29	0.02	0.28	0.16	69.21	-3.57	0.03	115.16	66.42	0.59	0.4	0.28
NO3	WIN	29	0.58	1.13	0.56	95.18	121.24	0.55	0.7	0.74	96.3	35.76	0.95	121.51	71.9	1.21	1.02	0.31
NO3	SPR	28	0.48	0.74	0.35	52.87	97.02	0.26	0.47	0.6	51.39	-1.55	0.53	98.03	66.16	0.97	0.81	0.12
NO3	SUM	30	0.31	0.32	0.03	3.32	82.68	0.01	0.26	0.1	8.03	-29.48	0.03	82.51	79.72	0.83	0.32	0
NO3	FAL	27	0.32	0.55	0.03	70.72	127.18	0.23	0.41	0.42	83.2	-0.43	0.71	137.12	79.09	1.27	0.69	0
NO3	ALL	114	0.42	0.68	0.49	61.24	108.1	0.26	0.46	0.5	58.94	0.86	0.61	109.18	74.25	1.08	0.75	0.24
OC	WIN	29	1.65	3.02	0.78	82.5	82.74	1.36	1.37	1.81	93.94	56.14	0.82	94.16	56.37	0.83	1.91	0.61
OC	SPR	30	1.83	2.35	0.84	28.94	37.72	0.53	0.69	0.44	38.02	26.14	0.29	45.49	34.8	0.38	0.85	0.7
OC	SUM	31	1.31	2.29	0.6	75.14	82.76	0.98	1.08	0.72	125.28	58.72	0.75	129.77	63.84	0.83	1.3	0.36
OC	FAL	30	1.23	2.24	0.65	82.89	92.16	1.02	1.13	1.3	107.16	53.75	0.83	114.59	63.79	0.92	1.53	0.42
OC	ALL	120	1.5	2.47	0.7	64.63	70.97	0.97	1.06	1.14	91.36	48.71	0.65	96.3	54.76	0.71	1.44	0.49
PM-2.5	WIN	29	9.33	11.42	0.79	22.42	30.05	2.09	2.8	12.55	22.02	16.28	0.22	29.17	24.54	0.3	4.11	0.62
PM-2.5	SPR	29	11.22	9.74	0.42	-13.18	29.83	-1.48	3.35	18.49	-9.07	-15.28	-0.15	28.71	31.49	0.34	4.55	0.17
PM-2.5	SUM	31	10.77	7.26	0.5	-32.55	39.1	-3.51	4.21	19.68	-22.25	-31.28	-0.48	33.39	40.83	0.58	5.65	0.25
PM-2.5	FAL	27	6.95	8.01	0.34	15.32	42.15	1.06	2.93	12.67	69.99	9.91	0.15	95.44	43.86	0.42	3.72	0.12
PM-2.5	ALL	116	9.63	9.1	0.41	-5.57	34.72	-0.54	3.34	20.87	13.58	-5.8	-0.06	45.61	35.13	0.37	4.6	0.17
SO4	WIN	29	1.94	2.09	0.42	7.74	39.23	0.15	0.76	1.09	241.19	12.61	0.08	262.01	37.85	0.39	1.06	0.17
SO4	SPR	28	2.53	1.94	0.25	-23.51	34.09	-0.59	0.86	1.14	-17.31	-25.99	-0.31	30.73	36.22	0.45	1.22	0.06
SO4	SUM	30	2.19	0.89	0.56	-59.56	61.03	-1.31	1.34	0.85	-55.68	-83.13	-1.47	57.35	84.61	1.51	1.6	0.31
SO4	FAL	27	1.46	1.34	0.56	-8.11	35.67	-0.12	0.52	0.45	-7.06	-20.07	-0.09	36.88	43.16	0.39	0.68	0.31
SO4	ALL	114	2.04	1.56	0.34	-23.55	43.24	-0.48	0.88	1.2	40.78	-29.81	-0.31	98.03	51.02	0.57	1.2	0.12

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 120730012																		
EC	WIN	15	1.04	1.11	0.67	6.46	44.53	0.07	0.46	0.45	21.2	9.27	0.06	43.55	37.19	0.45	0.68	0.45
EC	SPR	15	0.53	0.64	0.63	21.29	46.56	0.11	0.25	0.12	35.26	21.86	0.21	47.21	35.93	0.47	0.36	0.4
EC	SUM	15	0.48	0.44	0.6	-9.2	26.75	-0.04	0.13	0.03	-0.72	-5.28	-0.1	25.45	26.46	0.29	0.18	0.36
EC	FAL	15	0.64	0.63	0.84	-1.4	28.05	-0.01	0.18	0.06	17.85	7.71	-0.01	36.97	31.47	0.28	0.24	0.7
EC	ALL	60	0.67	0.7	0.73	4.69	37.83	0.03	0.25	0.17	18.4	8.39	0.05	38.3	32.76	0.38	0.41	0.54
NACL	WIN	15	0.17	0.33	0.85	101.33	151.78	0.17	0.25	0.16	196.46	49.78	1.01	227.72	99.29	1.52	0.43	0.72
NACL	SPR	15	0.31	0.47	0.84	49	92.65	0.15	0.29	0.18	61.55	17.64	0.49	96.7	69.51	0.93	0.46	0.71
NACL	SUM	16	0.13	0.19	0.4	48.69	70.68	0.06	0.09	0.01	64.48	31.08	0.49	82.43	53.59	0.71	0.12	0.16
NACL	FAL	15	0.07	0.14	0.32	103.38	132.37	0.07	0.09	0.02	213.68	32.96	1.03	239.23	66.27	1.32	0.14	0.1
NACL	ALL	61	0.17	0.28	0.83	66.98	106.45	0.11	0.18	0.09	132.9	32.84	0.67	160.22	71.86	1.06	0.32	0.69
NH4	WIN	15	0.51	0.87	0.76	71.51	89.95	0.36	0.46	0.18	354.99	70.4	0.72	367.07	84.7	0.9	0.56	0.57
NH4	SPR	15	0.53	0.54	0.27	2.13	57.08	0.01	0.3	0.14	7.52	-22.7	0.02	66	64.13	0.57	0.37	0.08
NH4	SUM	16	0.4	0.28	0.64	-29.91	52.55	-0.12	0.21	0.06	-24.58	-52.25	-0.43	52.74	72.81	0.75	0.27	0.41
NH4	FAL	15	0.28	0.59	0.83	112.57	112.57	0.31	0.31	0.05	443.99	83.2	1.13	443.99	83.2	1.13	0.38	0.69
NH4	ALL	61	0.43	0.57	0.61	32.05	74.38	0.14	0.32	0.15	191.88	18.48	0.32	229.51	76.15	0.74	0.41	0.37
NO3	WIN	15	0.44	1.3	0.44	198.22	217.29	0.86	0.95	0.87	230.65	73.02	1.98	247.79	101.43	2.17	1.27	0.19
NO3	SPR	15	0.32	0.54	0.55	68.11	126.8	0.22	0.41	0.29	63.1	-5.33	0.68	124.05	89.59	1.27	0.58	0.31
NO3	SUM	16	0.19	0.1	0.33	-45.06	64.92	-0.09	0.12	0.02	-27.41	-58.82	-0.82	62.19	79.77	1.18	0.16	0.11
NO3	FAL	15	0.2	0.3	0.59	50.98	84.74	0.1	0.17	0.1	33.55	-3.15	0.51	70.93	52.63	0.85	0.34	0.35
NO3	ALL	61	0.28	0.55	0.59	94.47	142.94	0.27	0.41	0.44	73.29	0.44	0.94	125.19	80.84	1.43	0.72	0.35
OC	WIN	15	3.23	5.3	0.7	64.2	69.66	2.07	2.25	13.5	68.83	36.15	0.64	75.01	43.04	0.7	4.22	0.5
OC	SPR	15	1.79	2.92	0.76	63.32	77.16	1.13	1.38	3.13	55.54	28.11	0.63	71.19	49.4	0.77	2.1	0.57
OC	SUM	15	3.2	2.39	0.52	-25.27	40.18	-0.81	1.29	4.16	-9.36	-19.52	-0.34	33.21	38.92	0.54	2.19	0.27
OC	FAL	15	2.06	2.93	0.9	42.2	50.14	0.87	1.03	1.26	44.99	28.37	0.42	52.33	36.54	0.5	1.42	0.81
OC	ALL	60	2.57	3.39	0.61	31.76	57.87	0.82	1.49	6.59	40	18.28	0.32	57.94	41.98	0.58	2.69	0.38
PM-2.5	WIN	15	11.76	14.24	0.78	21.12	39.11	2.48	4.6	46.29	19.17	9.07	0.21	37.37	30.47	0.39	7.24	0.61
PM-2.5	SPR	15	10.63	9.15	0.61	-13.86	36.79	-1.47	3.91	19.04	-16.1	-26.54	-0.16	36.1	42.22	0.43	4.61	0.37
PM-2.5	SUM	16	13.02	6.2	0.69	-52.37	52.37	-6.82	6.82	14.61	-52.15	-74.3	-1.1	52.15	74.3	1.1	7.82	0.47
PM-2.5	FAL	14	9.6	8.78	0.91	-8.57	20.56	-0.82	1.97	5.01	-10.76	-14.33	-0.09	21.07	23.32	0.22	2.39	0.83
PM-2.5	ALL	60	11.31	9.55	0.62	-15.54	38.96	-1.76	4.41	32.95	-15.65	-27.52	-0.18	37.19	43.43	0.46	6	0.38
SO4	WIN	15	1.98	1.88	0.57	-4.94	37.17	-0.1	0.74	1.53	12.03	0.9	-0.05	37.01	34.97	0.39	1.24	0.32
SO4	SPR	15	2.63	1.88	0.17	-28.56	49.1	-0.75	1.29	1.51	-20.43	-37.91	-0.4	50.05	59.01	0.69	1.44	0.03
SO4	SUM	16	2.46	1.19	0.58	-51.71	55.36	-1.27	1.36	0.73	-53.27	-82.92	-1.07	57.1	86.45	1.15	1.54	0.33
SO4	FAL	15	1.46	1.66	0.76	13.61	34.43	0.2	0.5	0.36	47.24	15.39	0.14	66.99	41.43	0.34	0.64	0.58
SO4	ALL	61	2.14	1.65	0.4	-23.09	45.81	-0.49	0.98	1.36	-4.42	-27.07	-0.3	52.86	55.97	0.6	1.27	0.16

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 130210007																		
EC	WIN	14	0.8	0.85	0.62	7.19	48.64	0.06	0.39	0.32	10600.2	24.97	0.07	10618	47.19	0.49	0.57	0.39
EC	SPR	15	0.62	0.54	0.71	-12.58	30.52	-0.08	0.19	0.08	7.49	-2.07	-0.14	34.28	31.19	0.35	0.3	0.51
EC	SUM	16	0.61	0.45	0.64	-25.84	29.12	-0.16	0.18	0.02	-21.79	-27.1	-0.35	27.15	31.78	0.39	0.21	0.41
EC	FAL	14	0.77	0.59	0.92	-23.19	32.62	-0.18	0.25	0.12	-4.72	-9.91	-0.3	26.43	28.81	0.42	0.39	0.84
EC	ALL	59	0.69	0.6	0.66	-13.15	35.68	-0.09	0.25	0.14	2510.17	-4.3	-0.15	2541.9	34.58	0.41	0.38	0.43
NACL	WIN	14	0.04	0.22	0.75	399.42	399.42	0.18	0.18	0	514.13	135.69	3.99	514.13	135.69	3.99	0.19	0.57
NACL	SPR	15	0.15	0.45	0.53	195.85	221.97	0.3	0.33	0.18	3011.66	98.06	1.96	3020	110.14	2.22	0.52	0.28
NACL	SUM	16	0.1	0.2	0.76	107.74	107.74	0.1	0.1	0	159.5	75.87	1.08	159.5	75.87	1.08	0.11	0.58
NACL	FAL	12	0.08	0.22	0.39	188.89	205.37	0.15	0.16	0.01	383.09	111.49	1.89	386.35	115.11	2.05	0.17	0.15
NACL	ALL	57	0.09	0.27	0.53	192.82	206.7	0.18	0.19	0.06	1044.24	103.9	1.93	1047.1	107.84	2.07	0.3	0.28
NH4	WIN	14	0.59	0.86	0.64	44.96	57.04	0.27	0.34	0.1	125.62	47.19	0.45	133.43	56.13	0.57	0.42	0.41
NH4	SPR	13	0.65	0.65	0.84	0.82	33.17	0.01	0.22	0.08	-2.33	-15.75	0.01	42.39	43.93	0.33	0.28	0.7
NH4	SUM	16	0.83	0.7	0.34	-15.7	36.22	-0.13	0.3	0.14	-0.14	-12.64	-0.19	41.16	42.08	0.43	0.4	0.12
NH4	FAL	12	0.43	0.8	0.51	88.59	91.81	0.38	0.39	0.13	348.53	64.03	0.89	350.33	65.94	0.92	0.52	0.26
NH4	ALL	55	0.64	0.75	0.49	17.77	48.49	0.11	0.31	0.15	107.43	18.58	0.18	132.39	51.3	0.48	0.41	0.24
NO3	WIN	14	0.56	1.4	0.52	147.55	157.86	0.83	0.89	0.67	175.49	74.87	1.48	184.64	88.33	1.58	1.17	0.27
NO3	SPR	15	0.36	0.74	0.11	104.74	140.01	0.38	0.5	0.32	544.6	36.07	1.05	578.06	88	1.4	0.68	0.01
NO3	SUM	16	0.23	0.15	0.07	-33.57	56.12	-0.08	0.13	0.02	-25.67	-47.54	-0.51	53.33	69.04	0.84	0.15	0.01
NO3	FAL	12	0.28	0.86	0.65	205.27	213.43	0.58	0.6	0.43	191.84	67.55	2.05	199.24	75.71	2.13	0.87	0.42
NO3	ALL	57	0.36	0.76	0.53	113.36	144.16	0.4	0.51	0.46	219.6	28.76	1.13	254.39	80.17	1.44	0.79	0.28
OC	WIN	13	2.71	3.55	0.78	31.05	49.85	0.84	1.35	6.17	34.94	18.78	0.31	51.84	39.39	0.5	2.62	0.61
OC	SPR	15	2.96	2.67	0.89	-9.87	24.94	-0.29	0.74	0.74	-1.58	-11.45	-0.11	36.54	34.86	0.28	0.91	0.78
OC	SUM	16	3.9	3.88	0.37	-0.59	35.14	-0.02	1.37	3.45	9.55	0.18	-0.01	35.95	32.98	0.35	1.86	0.13
OC	FAL	14	2.28	2.32	0.91	1.76	21.32	0.04	0.49	0.29	4.85	-0.51	0.02	27.11	26.15	0.21	0.54	0.83
OC	ALL	58	3	3.12	0.71	3.87	32.97	0.12	0.99	2.77	11.23	1.17	0.04	37.53	33.25	0.33	1.67	0.51
PM-2.5	WIN	14	9.69	11.38	0.81	17.36	28.27	1.68	2.74	21.49	18.62	11.14	0.17	28.36	23.13	0.28	4.93	0.66
PM-2.5	SPR	15	12.08	10.01	0.49	-17.14	45.49	-2.07	5.5	39.36	281.97	-10.38	-0.21	337.52	61.63	0.55	6.61	0.24
PM-2.5	SUM	16	17.48	10.42	0.38	-40.35	42.26	-7.05	7.38	29.33	-36.28	-49.26	-0.68	38.63	51.51	0.71	8.89	0.14
PM-2.5	FAL	14	9.71	9.13	0.83	-5.99	17.64	-0.58	1.71	6.06	-4.47	-6.37	-0.06	15.92	16.99	0.19	2.53	0.68
PM-2.5	ALL	59	12.42	10.24	0.51	-17.54	35.9	-2.18	4.46	35.08	65.21	-14.87	-0.21	106.79	39.15	0.44	6.31	0.26
SO4	WIN	14	1.63	1.57	0.44	-3.75	27.7	-0.06	0.45	0.46	7.16	1.5	-0.04	26.64	26.15	0.29	0.68	0.19
SO4	SPR	15	2.18	2.36	0.19	8.4	53.88	0.18	1.17	2.91	1443.69	7.26	0.08	1483.2	59.72	0.54	1.72	0.04
SO4	SUM	16	3.5	2.23	0.26	-36.34	39.57	-1.27	1.38	1.6	-30.32	-42.06	-0.57	34.53	45.75	0.62	1.79	0.07
SO4	FAL	12	1.97	1.98	0.7	0.89	22.27	0.02	0.44	0.34	2.66	-1.7	0.01	23.62	22.74	0.22	0.58	0.48
SO4	ALL	57	2.37	2.05	0.33	-13.51	38.01	-0.32	0.9	1.76	373.73	-9.88	-0.16	411.51	39.77	0.44	1.37	0.11

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 130590001																		
EC	WIN	15	0.41	0.54	0.58	31.54	48.61	0.13	0.2	0.07	49.76	29.63	0.32	59.61	40.68	0.49	0.29	0.34
EC	SPR	15	0.44	0.46	0.69	4.14	34.86	0.02	0.15	0.04	23.59	7.73	0.04	47.69	35.86	0.35	0.2	0.47
EC	SUM	16	0.52	0.42	0.53	-19.86	28.3	-0.1	0.15	0.02	-13.66	-19.33	-0.25	28.76	31.5	0.35	0.18	0.29
EC	FAL	15	0.43	0.44	0.86	1.74	23.51	0.01	0.1	0.01	15.08	7.94	0.02	33.36	29.07	0.24	0.12	0.73
EC	ALL	61	0.45	0.47	0.6	2.4	33.26	0.01	0.15	0.04	18.16	6.07	0.02	42.13	34.23	0.33	0.2	0.36
NACL	WIN	13	0.07	0.12	0.99	67.4	75.64	0.05	0.06	0.01	801.35	66.96	0.67	812.09	80.58	0.76	0.1	0.98
NACL	SPR	14	0.13	0.21	0.31	64.62	131.08	0.08	0.17	0.05	152.61	45.72	0.65	178.91	83.85	1.31	0.25	0.1
NACL	SUM	16	0.09	0.05	0.85	-40.56	42.34	-0.04	0.04	0	-41.77	-58.47	-0.68	43.32	59.97	0.71	0.05	0.72
NACL	FAL	14	0.05	0.05	0.24	-15.16	46.76	-0.01	0.03	0	15.19	-4.12	-0.18	48.64	42.49	0.55	0.05	0.06
NACL	ALL	57	0.09	0.11	0.67	22.45	81.78	0.02	0.07	0.02	212.26	9.08	0.22	253.26	66.24	0.82	0.14	0.45
NH4	WIN	14	0.63	0.72	0.74	13.85	36.94	0.09	0.23	0.07	38.87	22.02	0.14	52.82	38.47	0.37	0.27	0.55
NH4	SPR	15	0.82	0.82	0.75	0.04	39.21	0	0.32	0.14	12.63	-6.99	0	54.98	52.55	0.39	0.38	0.57
NH4	SUM	16	1.23	0.98	0.46	-20.23	32.01	-0.25	0.39	0.16	-14.08	-22.33	-0.25	32.78	35.87	0.4	0.47	0.21
NH4	FAL	15	0.39	0.67	0.77	70.87	70.87	0.28	0.28	0.03	152.24	59.32	0.71	152.24	59.32	0.71	0.33	0.6
NH4	ALL	60	0.78	0.8	0.68	3	39.72	0.02	0.31	0.14	46.53	12.27	0.03	72.87	46.51	0.4	0.37	0.46
NO3	WIN	14	0.77	1.06	0.53	38.43	70.69	0.29	0.54	0.35	50.06	14.01	0.38	85.88	65.39	0.71	0.66	0.28
NO3	SPR	15	0.7	0.76	0.72	9.14	47.57	0.06	0.33	0.31	21.93	-14.63	0.09	66.17	56.51	0.48	0.56	0.52
NO3	SUM	16	0.38	0.1	0.29	-72.46	72.46	-0.27	0.27	0.02	-67.94	-109.58	-2.63	67.94	109.58	2.63	0.31	0.08
NO3	FAL	15	0.39	0.62	0.3	59.04	87.66	0.23	0.34	0.22	65.94	14.17	0.59	103.77	65.93	0.88	0.52	0.09
NO3	ALL	60	0.55	0.62	0.63	12.56	66.67	0.07	0.37	0.27	15.53	-26.06	0.13	80.64	75.09	0.67	0.53	0.4
OC	WIN	15	1.71	2.1	0.57	22.74	55.75	0.39	0.95	1.66	49.08	25.65	0.23	65.98	46.15	0.56	1.35	0.33
OC	SPR	15	2.37	2.31	0.78	-2.39	27.81	-0.06	0.66	0.78	20	2.43	-0.02	47.57	36.52	0.28	0.88	0.62
OC	SUM	16	3.31	4.38	0.49	32.33	49.34	1.07	1.63	2.74	47.38	30.53	0.32	56.8	41.61	0.49	1.97	0.24
OC	FAL	15	1.76	1.78	0.9	0.94	20.06	0.02	0.35	0.23	6.85	3.56	0.01	21.44	20.45	0.2	0.48	0.82
OC	ALL	61	2.3	2.67	0.71	15.91	39.57	0.37	0.91	1.58	31.1	15.79	0.16	48.09	36.27	0.4	1.31	0.51
PM-2.5	WIN	14	9.69	7.75	0.41	-20.05	39.94	-1.94	3.87	66.47	-0.71	-8.69	-0.25	31.59	34.02	0.5	8.38	0.17
PM-2.5	SPR	15	11.55	8.41	0.64	-27.2	39.4	-3.14	4.55	17.19	-19.21	-32.12	-0.37	42.41	48.28	0.54	5.2	0.41
PM-2.5	SUM	16	18.74	11.34	0.55	-39.48	40.61	-7.4	7.61	23.31	-36.58	-47.93	-0.65	38.32	49.55	0.67	8.84	0.3
PM-2.5	FAL	15	7.6	6.55	0.85	-13.77	21.05	-1.05	1.6	3.43	-8.42	-13.39	-0.16	24.05	25.14	0.24	2.13	0.73
PM-2.5	ALL	60	12.05	8.57	0.65	-28.83	37.11	-3.47	4.47	33.04	-16.83	-26.19	-0.41	34.2	39.51	0.52	6.72	0.42
SO4	WIN	14	1.49	1.28	0.7	-14.19	27.78	-0.21	0.41	0.29	-6.06	-11.95	-0.17	26.95	28.88	0.32	0.57	0.49
SO4	SPR	15	2.34	2.02	0.68	-13.5	29.34	-0.32	0.69	0.87	-5.38	-14.55	-0.16	30.64	33.31	0.34	0.99	0.46
SO4	SUM	16	4.12	2.71	0.32	-34.37	39.21	-1.42	1.62	1.56	-30.62	-42.22	-0.52	38.37	48.35	0.6	1.89	0.1
SO4	FAL	15	1.49	1.4	0.9	-5.93	16.89	-0.09	0.25	0.08	-4.12	-6.95	-0.06	19.4	20.55	0.18	0.3	0.81
SO4	ALL	60	2.4	1.88	0.73	-21.98	31.71	-0.53	0.76	1.02	-11.95	-19.42	-0.28	29.03	33.1	0.41	1.14	0.53

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 130890002																		
EC	WIN	16	1.36	1.21	0.89	-10.98	31.96	-0.15	0.43	0.43	23.19	9.47	-0.12	42.96	33.74	0.36	0.67	0.79
EC	SPR	24	1.17	0.92	0.67	-21.48	43.52	-0.25	0.51	0.4	17.31	-1.09	-0.27	53.65	47.11	0.55	0.68	0.45
EC	SUM	24	1.22	0.86	0.65	-29.79	37.28	-0.36	0.45	0.31	-15.47	-23.52	-0.42	32.75	37.96	0.53	0.67	0.43
EC	FAL	19	1.31	0.91	0.9	-30.69	39.06	-0.4	0.51	0.27	-10.06	-19.92	-0.44	38.55	41.49	0.56	0.65	0.8
EC	ALL	83	1.25	0.95	0.78	-23.84	38.28	-0.3	0.48	0.36	2.7	-9.85	-0.31	42.09	40.6	0.5	0.67	0.6
NACL	WIN	20	0.06	0.18	0.87	210.67	210.83	0.12	0.12	0.05	1019.45	85.71	2.11	1019.8	86.03	2.11	0.25	0.75
NACL	SPR	23	0.09	0.17	0.47	91.51	126.72	0.08	0.11	0.04	121.87	50.24	0.92	133.57	66.34	1.27	0.21	0.22
NACL	SUM	23	0.07	0.07	0.89	13.28	60.42	0.01	0.04	0	9.17	-15.4	0.13	62.88	60.76	0.6	0.05	0.79
NACL	FAL	23	0.07	0.09	0.18	23.7	95.89	0.02	0.07	0.02	63.69	22.94	0.24	88.8	60.2	0.96	0.13	0.03
NACL	ALL	89	0.07	0.13	0.54	76.58	118.08	0.05	0.08	0.03	279.41	34.19	0.77	302.88	67.73	1.18	0.17	0.29
NH4	WIN	20	0.68	1.05	0.5	53.81	74.07	0.37	0.51	0.33	185.02	51.85	0.54	193.58	62.18	0.74	0.68	0.25
NH4	SPR	24	0.73	0.94	0.64	28.61	49.35	0.21	0.36	0.15	37.47	17.29	0.29	60.86	47.96	0.49	0.44	0.41
NH4	SUM	23	0.77	0.87	0.49	13.65	41.75	0.1	0.32	0.15	33.49	10.3	0.14	61.21	46.2	0.42	0.4	0.24
NH4	FAL	23	0.33	0.77	0.74	131.07	134.93	0.44	0.45	0.09	171.13	77.72	1.31	175.04	82.75	1.35	0.52	0.55
NH4	ALL	90	0.63	0.9	0.54	43.88	64.52	0.28	0.41	0.19	103.4	38.63	0.44	119.62	59.56	0.65	0.52	0.29
NO3	WIN	20	1.08	1.94	0.39	78.55	111.71	0.85	1.21	2.36	197.81	53.52	0.79	215.96	78.17	1.12	1.76	0.15
NO3	SPR	24	0.43	0.82	0.32	89.01	115.98	0.39	0.5	0.47	114.83	30.51	0.89	143.66	70.67	1.16	0.78	0.1
NO3	SUM	23	0.19	0.12	0.43	-37.27	57.47	-0.07	0.11	0.01	-39.25	-64.52	-0.59	57.02	77.72	0.92	0.12	0.18
NO3	FAL	23	0.26	0.74	0.65	188.36	197.27	0.49	0.51	0.37	167.14	57.98	1.88	183.96	80.14	1.97	0.78	0.42
NO3	ALL	90	0.47	0.87	0.54	84.31	119.02	0.4	0.56	0.85	107.26	18.36	0.84	147.89	76.56	1.19	1	0.29
OC	WIN	16	2.76	4.02	0.76	45.67	57.63	1.26	1.59	6.21	59.83	30.25	0.46	68.55	39.97	0.58	2.79	0.58
OC	SPR	24	2.14	2.77	0.84	28.98	37.61	0.62	0.81	0.53	52.92	31.26	0.29	60.51	39.97	0.38	0.96	0.7
OC	SUM	24	2.75	4.19	0.58	52.39	64.81	1.44	1.78	2.7	65.51	39.05	0.52	74.68	49.68	0.65	2.18	0.34
OC	FAL	19	1.94	2.76	0.65	42.26	56.87	0.82	1.1	1.59	55.53	34.64	0.42	63.82	44.04	0.57	1.5	0.43
OC	ALL	83	2.39	3.42	0.71	42.94	54.68	1.03	1.31	2.61	58.49	34.09	0.43	66.92	43.71	0.55	1.91	0.5
PM-2.5	WIN	22	11.47	11.74	0.84	2.36	24.12	0.27	2.77	15.53	5.33	-0.69	0.02	26.74	22.97	0.24	3.95	0.71
PM-2.5	SPR	24	11.05	10.46	0.65	-5.33	28.12	-0.59	3.11	14.55	6.2	-2.97	-0.06	34.35	31.03	0.3	3.86	0.43
PM-2.5	SUM	25	17.01	11.73	0.58	-31.07	36.3	-5.28	6.18	22.25	-28.86	-38.62	-0.45	36.02	44.76	0.53	7.08	0.33
PM-2.5	FAL	23	9.6	9.21	0.81	-4.03	21.21	-0.39	2.04	7.09	-2.02	-5.94	-0.04	22.24	22.83	0.22	2.69	0.66
PM-2.5	ALL	94	12.38	10.79	0.68	-12.82	28.93	-1.59	3.58	20.05	-5.34	-12.65	-0.15	30.05	30.79	0.33	4.75	0.46
SO4	WIN	20	1.69	1.6	0.52	-5.21	35.98	-0.09	0.61	0.64	8.29	-0.43	-0.05	37.45	36.31	0.38	0.81	0.27
SO4	SPR	24	2.63	2.36	0.8	-10.34	24.76	-0.27	0.65	0.55	-4.97	-10.53	-0.12	27.43	28.5	0.28	0.79	0.64
SO4	SUM	23	3.33	2.63	0.29	-21.02	38.04	-0.7	1.27	2.03	-14.29	-26.3	-0.27	38.32	43.45	0.48	1.59	0.09
SO4	FAL	23	1.61	1.68	0.84	4.26	23.7	0.07	0.38	0.24	5.41	0.32	0.04	25.26	25.83	0.24	0.5	0.71
SO4	ALL	90	2.34	2.09	0.66	-10.83	31.2	-0.25	0.73	0.95	-1.75	-9.54	-0.12	31.89	33.38	0.35	1.01	0.44

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 131150003																		
EC	WIN	15	1.31	0.46	0.24	-64.99	64.99	-0.85	0.85	0.71	-58.35	-87.02	-1.86	58.35	87.02	1.86	1.2	0.06
EC	SPR	14	1.2	0.42	0.84	-65.36	65.36	-0.78	0.78	0.22	-62.65	-93.79	-1.89	62.65	93.79	1.89	0.92	0.7
EC	SUM	15	1.78	0.32	0.33	-81.83	81.83	-1.46	1.46	0.39	-79.59	-133.58	-4.5	79.59	133.58	4.5	1.59	0.11
EC	FAL	14	1.11	0.42	0.68	-61.78	61.78	-0.69	0.69	0.21	-57.45	-84.27	-1.62	57.45	84.27	1.62	0.82	0.46
EC	ALL	58	1.36	0.4	0.38	-70.16	70.16	-0.95	0.95	0.48	-64.66	-100.03	-2.35	64.66	100.03	2.35	1.18	0.14
NACL	WIN	14	0.06	0.22	0.96	253.34	253.34	0.16	0.16	0.06	315.62	104.84	2.53	315.62	104.84	2.53	0.29	0.92
NACL	SPR	13	0.15	0.28	0.62	91.6	111.05	0.13	0.16	0.03	212.97	69.16	0.92	222.25	81.98	1.11	0.22	0.39
NACL	SUM	16	0.08	0.12	0.61	43.36	43.58	0.03	0.03	0	50.06	35.3	0.43	50.23	35.47	0.44	0.04	0.37
NACL	FAL	15	0.11	0.11	0.81	5.39	79.93	0.01	0.09	0.02	117.81	51.96	0.05	131.44	70.77	0.8	0.16	0.66
NACL	ALL	58	0.1	0.18	0.46	81.43	109.05	0.08	0.11	0.03	168.2	63.98	0.81	173.85	71.77	1.09	0.2	0.21
NH4	WIN	14	0.73	0.84	0.51	14.93	41.69	0.11	0.3	0.12	121.34	21.64	0.15	142.73	46.31	0.42	0.37	0.26
NH4	SPR	14	0.83	1.09	0.65	30.21	53.2	0.25	0.44	0.24	50.84	23.76	0.3	70.75	51.34	0.53	0.56	0.42
NH4	SUM	16	1.08	0.93	0.14	-13.6	35.01	-0.15	0.38	0.19	-5.09	-14.45	-0.16	36.27	39.36	0.41	0.46	0.02
NH4	FAL	14	0.36	0.69	0.69	90.78	102.24	0.33	0.37	0.06	145.73	74.57	0.91	149.36	78.73	1.02	0.41	0.48
NH4	ALL	58	0.76	0.89	0.55	16.55	49.08	0.13	0.37	0.19	75.33	24.97	0.17	97.59	53.43	0.49	0.45	0.3
NO3	WIN	14	0.75	1.25	0.4	67.16	87.11	0.5	0.65	0.5	114.84	50.85	0.67	127.67	67.3	0.87	0.87	0.16
NO3	SPR	14	0.42	0.96	0.05	125.48	141.45	0.53	0.6	1.18	175.44	39.19	1.25	192.52	60.99	1.41	1.21	0
NO3	SUM	16	0.22	0.16	0.23	-28.29	45.1	-0.06	0.1	0.01	-27.64	-46.93	-0.39	46.36	62.26	0.63	0.11	0.05
NO3	FAL	15	0.3	0.6	0.35	99.64	121.58	0.3	0.36	0.25	101.45	30.39	1	126.36	61.61	1.22	0.59	0.12
NO3	ALL	59	0.41	0.72	0.42	73.72	100.7	0.3	0.42	0.52	87.18	16.36	0.74	120.67	62.99	1.01	0.78	0.18
OC	WIN	15	2.42	2.2	0.15	-9.23	61.6	-0.22	1.49	6.68	43.72	8.69	-0.1	71.9	53.82	0.68	2.59	0.02
OC	SPR	14	2.23	2.86	0.82	28.34	44.54	0.63	0.99	1.42	96.5	33.42	0.28	111.18	50.62	0.45	1.35	0.68
OC	SUM	15	2.79	4.54	0.34	62.8	66.82	1.75	1.86	2.69	67.46	43.24	0.63	70.88	47.09	0.67	2.4	0.12
OC	FAL	14	1.93	2.32	0.86	20.52	34.66	0.39	0.67	0.85	38.49	18.55	0.21	49.76	30.85	0.35	1	0.73
OC	ALL	58	2.35	2.99	0.49	27.35	53.97	0.64	1.27	3.5	61.34	25.98	0.27	75.77	45.76	0.54	1.98	0.24
PM-2.5	WIN	14	10.09	8.84	0.69	-12.34	28.27	-1.24	2.85	10.43	-13.73	-18.94	-0.14	26.98	30.24	0.32	3.46	0.48
PM-2.5	SPR	14	13.66	10.7	0.78	-21.7	30.82	-2.97	4.21	16.3	-16.84	-24.02	-0.28	30.29	35.13	0.39	5.01	0.6
PM-2.5	SUM	16	19.51	11.79	0.31	-39.54	39.54	-7.71	7.71	24.81	-37.45	-48.58	-0.65	37.45	48.58	0.65	9.18	0.1
PM-2.5	FAL	15	9.27	7.5	0.92	-19.04	19.69	-1.76	1.82	3.89	-17.92	-22.58	-0.24	19.36	23.98	0.24	2.65	0.85
PM-2.5	ALL	59	13.28	9.74	0.71	-26.65	31.86	-3.54	4.23	20.91	-21.96	-29.11	-0.36	28.67	34.78	0.43	5.78	0.5
SO4	WIN	14	1.94	1.6	0.4	-17.55	34.83	-0.34	0.68	0.59	-8.11	-16.46	-0.21	35.66	39.28	0.42	0.84	0.16
SO4	SPR	14	2.79	2.77	0.68	-0.54	28.85	-0.01	0.8	1.34	6.84	0.78	-0.01	29.52	27.43	0.29	1.16	0.46
SO4	SUM	16	4.11	2.72	0.27	-33.81	35.93	-1.39	1.48	1.62	-30.86	-42.06	-0.51	34.01	44.95	0.54	1.88	0.07
SO4	FAL	15	1.56	1.48	0.8	-5	20.81	-0.08	0.32	0.33	6.75	2.99	-0.05	21.36	20.7	0.22	0.58	0.64
SO4	ALL	59	2.63	2.15	0.66	-18.26	31.68	-0.48	0.83	1.3	-6.96	-14.37	-0.22	30.12	33.28	0.39	1.24	0.43

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 132150011																		
EC	WIN	15	0.7	0.82	0.55	17.57	46.25	0.12	0.32	0.38	29.11	16.92	0.18	41.44	32.24	0.46	0.63	0.3
EC	SPR	15	0.65	0.53	0.59	-17.66	37.17	-0.11	0.24	0.14	3.74	-9.41	-0.21	39.81	37.31	0.45	0.4	0.34
EC	SUM	16	0.53	0.48	0.46	-10.48	25.72	-0.06	0.14	0.04	-2.27	-7.14	-0.12	24.15	25.67	0.29	0.2	0.21
EC	FAL	15	0.58	0.53	0.57	-8.56	32.98	-0.05	0.19	0.08	9.11	-0.14	-0.09	34.12	34.09	0.36	0.28	0.33
EC	ALL	61	0.61	0.59	0.53	-4.06	36.11	-0.02	0.22	0.17	9.72	-0.06	-0.04	34.71	32.22	0.38	0.41	0.28
NACL	WIN	14	0.08	0.21	0.99	175.18	177.55	0.13	0.13	0.09	134.64	64.61	1.75	138.03	68.42	1.78	0.33	0.98
NACL	SPR	15	0.22	0.3	0.83	35.51	76.41	0.08	0.17	0.14	1373.83	26.98	0.36	1391.9	53.64	0.76	0.38	0.69
NACL	SUM	15	0.1	0.07	0.83	-21.6	34.26	-0.02	0.03	0	-13.92	-21.52	-0.28	33.81	37.79	0.44	0.05	0.69
NACL	FAL	14	0.04	0.05	0.05	7.64	59.43	0	0.03	0	42.4	14.26	0.08	65.06	46.44	0.59	0.04	0
NACL	ALL	58	0.11	0.16	0.83	43.27	82.15	0.05	0.09	0.06	394.43	20.45	0.43	417.74	51.37	0.82	0.26	0.69
NH4	WIN	15	0.62	0.82	0.57	31.86	56.51	0.2	0.35	0.24	107.52	32.43	0.32	126.7	57.09	0.57	0.53	0.33
NH4	SPR	15	0.7	0.61	0.51	-12.21	44.88	-0.09	0.31	0.14	-7.89	-27.74	-0.14	51.81	56.21	0.51	0.39	0.26
NH4	SUM	15	0.81	0.68	0.42	-16.18	32.78	-0.13	0.26	0.11	-10.05	-19.31	-0.19	32.02	36.64	0.39	0.35	0.18
NH4	FAL	15	0.4	0.58	0.69	45.51	56.32	0.18	0.22	0.06	113.59	50.27	0.46	120.66	58.49	0.56	0.3	0.47
NH4	ALL	60	0.63	0.67	0.52	6.51	45.69	0.04	0.29	0.16	50.79	8.91	0.07	82.8	52.11	0.46	0.4	0.27
NO3	WIN	15	0.59	1.16	0.23	95.78	133.05	0.57	0.79	1.93	112.49	15.02	0.96	151.71	73.72	1.33	1.5	0.05
NO3	SPR	15	0.4	0.43	0.5	8.41	80.04	0.03	0.32	0.25	15.41	-45.13	0.08	96.42	80.17	0.8	0.5	0.25
NO3	SUM	15	0.2	0.06	0.14	-68.38	68.38	-0.14	0.14	0.01	-63.07	-98.53	-2.16	63.07	98.53	2.16	0.16	0.02
NO3	FAL	15	0.26	0.24	0.18	-10.33	60.89	-0.03	0.16	0.05	-3.73	-31.65	-0.12	62.27	63.98	0.68	0.22	0.03
NO3	ALL	60	0.36	0.47	0.45	30.24	96.66	0.11	0.35	0.63	15.27	-40.07	0.3	93.37	79.1	0.97	0.8	0.2
OC	WIN	15	2.64	3.74	0.63	41.91	57.62	1.1	1.52	10.05	53.07	32.25	0.42	59.4	39.04	0.58	3.36	0.4
OC	SPR	15	3.03	2.86	0.77	-5.42	38.38	-0.16	1.16	1.97	17.43	-2.04	-0.06	55.38	46.86	0.41	1.41	0.59
OC	SUM	16	3.68	4.98	0.23	35.34	65.53	1.3	2.41	5.7	53.72	30.92	0.35	71.97	54.28	0.66	2.72	0.05
OC	FAL	15	2.53	2.4	0.55	-5.17	40.74	-0.13	1.03	2.27	6.13	-2.63	-0.05	33.82	35.29	0.43	1.51	0.3
OC	ALL	61	2.98	3.52	0.57	18.12	51.85	0.54	1.55	5.47	32.93	14.89	0.18	55.42	44.04	0.52	2.4	0.32
PM-2.5	WIN	15	9.31	11.25	0.68	20.9	38.32	1.94	3.57	47.82	45.75	17.68	0.21	58.45	31.86	0.38	7.18	0.46
PM-2.5	SPR	15	12.78	9.11	0.63	-28.73	39.53	-3.67	5.05	24.35	-20.95	-34.48	-0.4	40.97	49.33	0.55	6.15	0.4
PM-2.5	SUM	15	17.08	11.4	0.3	-33.27	35.99	-5.68	6.15	28.25	-30.72	-41.45	-0.5	34.36	44.66	0.54	7.78	0.09
PM-2.5	FAL	15	11.7	7.49	0.34	-35.95	42.5	-4.21	4.97	79.39	-20.9	-30.41	-0.56	29.33	37.9	0.66	9.85	0.12
PM-2.5	ALL	60	12.72	9.81	0.46	-22.84	38.8	-2.9	4.93	53.33	-6.7	-22.16	-0.3	40.78	40.94	0.5	7.86	0.21
SO4	WIN	15	1.8	1.63	0.71	-9.83	30.98	-0.18	0.56	0.55	7.78	-3.54	-0.11	38	35.24	0.34	0.76	0.51
SO4	SPR	15	2.72	2.07	0.35	-23.91	42.5	-0.65	1.15	1.55	-14.82	-31.45	-0.31	46.68	51.05	0.56	1.4	0.12
SO4	SUM	15	3.7	2.08	0.26	-43.9	44.18	-1.63	1.64	1.36	-40.94	-56.35	-0.78	41.23	56.64	0.79	2	0.07
SO4	FAL	15	1.85	1.54	0.75	-16.96	30.91	-0.31	0.57	0.37	-12.44	-19.58	-0.2	32.1	35.58	0.37	0.69	0.57
SO4	ALL	60	2.52	1.83	0.52	-27.46	38.93	-0.69	0.98	1.28	-15.1	-27.73	-0.38	39.5	44.63	0.54	1.32	0.27

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 132450091																		
EC	WIN	14	0.68	0.78	0.46	13.78	55.28	0.09	0.38	0.25	52.35	26.53	0.14	70.86	50.13	0.55	0.51	0.22
EC	SPR	13	0.53	0.52	0.58	-3.16	35.89	-0.02	0.19	0.06	5.25	-4.67	-0.03	39.93	38.04	0.37	0.24	0.34
EC	SUM	16	0.54	0.43	0.18	-21.05	31.78	-0.11	0.17	0.04	-14.18	-22.25	-0.27	30.6	36.15	0.4	0.23	0.03
EC	FAL	14	0.47	0.55	0.87	17.45	30.61	0.08	0.14	0.02	40.71	24.32	0.17	51.97	36.94	0.31	0.16	0.76
EC	ALL	57	0.56	0.57	0.55	1.32	39.5	0.01	0.22	0.1	20.08	5.18	0.01	47.87	40.21	0.4	0.31	0.3
NACL	WIN	12	0.05	0.42	0.96	665.24	665.24	0.36	0.36	0.12	2128.22	156.01	6.65	2128.2	156.01	6.65	0.5	0.91
NACL	SPR	14	0.13	0.56	0.46	332.78	336.92	0.43	0.44	0.18	563.16	125.63	3.33	564.41	126.93	3.37	0.6	0.21
NACL	SUM	16	0.1	0.19	0.71	97.87	97.87	0.09	0.09	0	150.07	71.64	0.98	150.07	71.64	0.98	0.11	0.5
NACL	FAL	14	0.06	0.25	0.04	359.33	362.26	0.2	0.2	0.01	672.27	130.15	3.59	673.17	131.08	3.62	0.23	0
NACL	ALL	56	0.09	0.35	0.5	306.5	308.54	0.26	0.26	0.09	807.78	117.84	3.06	808.32	118.4	3.09	0.4	0.25
NH4	WIN	14	0.53	0.91	0.8	71.19	71.48	0.38	0.38	0.06	862.5	78	0.71	862.77	78.27	0.71	0.45	0.65
NH4	SPR	14	0.74	0.76	0.65	2.78	50.8	0.02	0.38	0.23	7.23	-13.15	0.03	57.41	56.61	0.51	0.48	0.42
NH4	SUM	16	0.88	0.8	0.57	-9.3	40.08	-0.08	0.35	0.17	31.37	-0.91	-0.1	71.25	55.56	0.44	0.42	0.32
NH4	FAL	12	0.23	0.82	0.61	259.55	259.55	0.59	0.59	0.16	533.2	117.43	2.6	533.2	117.43	2.6	0.71	0.37
NH4	ALL	56	0.62	0.82	0.48	32.75	67.32	0.2	0.42	0.22	340.65	41.12	0.33	364.66	74.76	0.67	0.52	0.23
NO3	WIN	14	0.61	1.37	0.63	123.57	123.57	0.76	0.76	0.28	562.43	87.2	1.24	562.43	87.2	1.24	0.93	0.4
NO3	SPR	14	0.52	0.8	0.71	54.48	79.09	0.28	0.41	0.24	53.05	16.09	0.54	82.6	57.66	0.79	0.56	0.51
NO3	SUM	16	0.35	0.16	0.28	-55.93	66.23	-0.2	0.23	0.03	-42.84	-76.09	-1.27	61.72	90.52	1.5	0.27	0.08
NO3	FAL	13	0.26	0.77	0.65	197.89	206.35	0.51	0.54	0.35	186.89	72.45	1.98	199.12	92.75	2.06	0.79	0.42
NO3	ALL	57	0.44	0.75	0.55	72.7	108.85	0.32	0.47	0.35	181.77	20.54	0.73	221.17	82.14	1.09	0.67	0.3
OC	WIN	14	2.18	3.18	0.71	45.68	61.97	1	1.35	2.77	70.68	41.32	0.46	78.94	50.76	0.62	1.94	0.5
OC	SPR	13	2.41	2.74	0.76	13.54	37.76	0.33	0.91	1.54	21.68	6.74	0.14	46.03	36.68	0.38	1.28	0.58
OC	SUM	16	4.07	4.29	0.22	5.43	81.5	0.22	3.32	30.1	59.32	25	0.05	81.96	60.2	0.82	5.49	0.05
OC	FAL	14	1.95	2.44	0.72	25.25	38.14	0.49	0.74	1.24	32.03	17.73	0.25	45	33.61	0.38	1.22	0.51
OC	ALL	57	2.71	3.21	0.23	18.55	61.1	0.5	1.65	9.87	46.82	23.06	0.19	63.94	45.99	0.61	3.18	0.05
PM-2.5	WIN	14	8.42	11.45	0.75	35.95	41.68	3.03	3.51	10.88	155.64	39.78	0.36	158.94	43.23	0.42	4.48	0.56
PM-2.5	SPR	14	11	10.07	0.71	-8.44	29.37	-0.93	3.23	18.3	-1.14	-11.3	-0.09	34.85	33.77	0.32	4.38	0.5
PM-2.5	SUM	16	18.67	11.59	0.39	-37.92	45.03	-7.08	8.41	104.22	-27.65	-43.18	-0.61	38.47	52.24	0.73	12.42	0.16
PM-2.5	FAL	14	8.09	9.33	0.8	15.24	27.05	1.23	2.19	7.55	17.77	11.99	0.15	28.33	23.93	0.27	3.01	0.63
PM-2.5	ALL	58	11.79	10.64	0.31	-9.74	37.95	-1.15	4.47	52.91	33.95	-2.15	-0.11	64.23	38.78	0.42	7.36	0.1
SO4	WIN	14	1.49	1.69	0.69	13.4	34.76	0.2	0.52	0.32	334.58	28.08	0.13	348.32	44.25	0.35	0.6	0.47
SO4	SPR	14	2.36	2.19	0.61	-7.32	32.47	-0.17	0.77	1.01	0.09	-9.04	-0.08	34.06	35.45	0.35	1.02	0.37
SO4	SUM	16	3.36	2.47	0.63	-26.71	35.19	-0.9	1.18	1.4	-16.84	-27	-0.36	34.01	42	0.48	1.49	0.4
SO4	FAL	14	1.06	1.9	0.42	78.96	87.15	0.84	0.93	0.65	369.19	64.63	0.79	375.52	72.33	0.87	1.16	0.18
SO4	ALL	58	2.11	2.08	0.6	-1.82	40.7	-0.04	0.86	1.27	165.25	12.75	-0.02	192.32	48.28	0.41	1.13	0.37

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 170310057																		
EC	WIN	10	0.48	1.96	0.62	308.9	308.9	1.48	1.48	0.27	313.75	119.14	3.09	313.75	119.14	3.09	1.57	0.38
EC	SPR	11	0.76	1.6	0.69	111.1	111.1	0.84	0.84	0.19	136.06	73.36	1.11	136.06	73.36	1.11	0.95	0.47
EC	SUM	15	1.01	1.5	0.83	48.48	49.21	0.49	0.5	0.07	54.4	40.29	0.48	54.91	40.82	0.49	0.56	0.7
EC	FAL	11	0.98	1.75	0.86	78.99	79.18	0.77	0.77	0.18	93.8	58.16	0.79	94.08	58.44	0.79	0.88	0.73
EC	ALL	47	0.83	1.68	0.55	102.22	102.55	0.85	0.85	0.29	137.91	68.99	1.02	138.14	69.22	1.03	1.01	0.3
NACL	WIN	9	0.33	0.19	0.32	-41.71	76.47	-0.14	0.25	0.17	50.68	11.13	-0.72	89.9	72.28	1.31	0.43	0.1
NACL	SPR	14	0.1	0.16	0.64	62.18	76.75	0.06	0.08	0.01	76.05	41.87	0.62	85.99	53.97	0.77	0.1	0.41
NACL	SUM	14	0.08	0.05	0.37	-39.79	52.77	-0.03	0.04	0	-21.26	-39.43	-0.66	48.5	60.99	0.88	0.06	0.14
NACL	FAL	12	0.06	0.08	0.29	32.09	69.1	0.02	0.04	0	58.3	29.04	0.32	74.87	54.08	0.69	0.06	0.09
NACL	ALL	49	0.13	0.11	0.38	-9.67	71.24	-0.01	0.09	0.04	39.24	9.85	-0.11	73.28	59.37	0.79	0.2	0.15
NH4	WIN	9	1.86	1.5	0.88	-19.23	35.87	-0.36	0.67	0.83	7.21	-3.36	-0.24	39.96	38.33	0.44	0.98	0.78
NH4	SPR	14	1.64	1.93	0.96	17.64	22.33	0.29	0.37	0.18	20.79	15.63	0.18	26.68	22.02	0.22	0.51	0.92
NH4	SUM	14	0.89	0.96	0.87	7.15	23.51	0.06	0.21	0.08	38.84	19.89	0.07	50.53	33.08	0.24	0.28	0.75
NH4	FAL	12	0.71	0.92	0.89	29.48	44.89	0.21	0.32	0.14	161.74	50.86	0.29	172.92	64.32	0.45	0.43	0.79
NH4	ALL	49	1.24	1.33	0.87	6.98	29.47	0.09	0.37	0.31	57.97	21.99	0.07	71.75	38.53	0.29	0.57	0.76
NO3	WIN	9	4.3	3.57	0.91	-16.89	27.18	-0.73	1.17	2.23	-2.79	-14.01	-0.2	35.24	35.94	0.33	1.66	0.82
NO3	SPR	14	2.99	3.56	0.97	19.04	26.95	0.57	0.81	0.89	14.44	8.73	0.19	29.71	27.28	0.27	1.1	0.95
NO3	SUM	14	0.88	0.36	0.44	-58.91	60.33	-0.52	0.53	0.15	-58.8	-91.19	-1.43	60	92.34	1.47	0.65	0.19
NO3	FAL	12	1.08	1.4	0.66	29.58	71.79	0.32	0.78	1.65	10.7	-16.41	0.3	69.3	63.34	0.72	1.33	0.43
NO3	ALL	49	2.16	2.12	0.89	-1.85	36.41	-0.04	0.79	1.4	-10.57	-30.15	-0.02	49.08	56.29	0.37	1.19	0.79
OC	WIN	10	1.55	4.17	0.88	168.74	168.74	2.62	2.62	1.29	168.81	89.38	1.69	168.81	89.38	1.69	2.86	0.77
OC	SPR	11	1.94	3.09	0.93	59.46	59.46	1.15	1.15	0.18	73.56	50.74	0.59	73.56	50.74	0.59	1.23	0.87
OC	SUM	15	2.58	3.03	0.21	17.5	40.33	0.45	1.04	2.74	24.17	10.91	0.18	39.98	30.08	0.4	1.71	0.04
OC	FAL	11	2	2.38	0.83	18.64	27.86	0.37	0.56	0.36	27.39	19.88	0.19	34.82	27.96	0.28	0.71	0.68
OC	ALL	47	2.08	3.14	0.39	50.98	62.12	1.06	1.29	2.02	67.26	39.02	0.51	74.04	47.03	0.62	1.77	0.15
PM-2.5	WIN	9	13.42	16.11	0.73	20.05	32.14	2.69	4.31	24.3	30.62	21.3	0.2	37.06	28.29	0.32	5.62	0.53
PM-2.5	SPR	14	13.39	16.59	0.88	23.87	30.72	3.2	4.11	17.71	30.5	21.71	0.24	37.65	29.57	0.31	5.28	0.77
PM-2.5	SUM	14	15.36	14.03	0.66	-8.68	22.22	-1.33	3.41	14.83	-3.17	-8.27	-0.1	25.43	25.91	0.24	4.08	0.43
PM-2.5	FAL	12	9.43	13.06	0.69	38.42	58.36	3.62	5.5	26.64	54.17	31.48	0.38	68.64	53.32	0.58	6.31	0.48
PM-2.5	ALL	49	12.99	14.91	0.74	14.73	33.03	1.91	4.29	24.59	26.7	15.46	0.15	41.64	34.11	0.33	5.32	0.54
SO4	WIN	9	2	1.24	0.62	-38.12	48.24	-0.76	0.96	1.79	-20.23	-31.93	-0.62	38.69	47.85	0.78	1.54	0.39
SO4	SPR	14	2.61	2.54	0.92	-2.7	19.3	-0.07	0.5	0.45	-2.99	-6.84	-0.03	21.37	22.31	0.2	0.68	0.84
SO4	SUM	14	2.84	2.56	0.83	-9.77	25.43	-0.28	0.72	0.78	3.61	-3.3	-0.11	29.84	29.44	0.28	0.92	0.69
SO4	FAL	12	1.67	1.57	0.86	-6.12	36.69	-0.1	0.61	0.73	16.64	8	-0.07	37.48	33.61	0.39	0.86	0.73
SO4	ALL	49	2.33	2.07	0.81	-11.33	29.03	-0.26	0.68	0.92	0.54	-6.8	-0.13	30.92	31.81	0.33	1	0.65

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 170310076																		
EC	WIN	23	0.53	1.52	0.51	185.88	185.88	0.99	0.99	0.16	201.57	93.35	1.86	201.57	93.35	1.86	1.07	0.26
EC	SPR	25	0.68	1.23	0.54	82.85	84.15	0.56	0.57	0.18	99.07	59.48	0.83	99.69	60.13	0.84	0.7	0.29
EC	SUM	26	0.93	1.23	0.77	32.4	33.41	0.3	0.31	0.05	42.49	31.11	0.32	43.48	32.16	0.33	0.38	0.59
EC	FAL	23	0.67	1.39	0.81	108.64	108.64	0.72	0.72	0.13	130.21	74.63	1.09	130.21	74.63	1.09	0.81	0.65
EC	ALL	97	0.71	1.34	0.5	89.13	89.81	0.63	0.64	0.19	115.59	63.5	0.89	116.02	63.95	0.9	0.77	0.25
NACL	WIN	22	0.08	0.18	0	115.04	135.76	0.1	0.11	0.01	499.41	80.94	1.15	506.67	89.51	1.36	0.13	0
NACL	SPR	25	0.09	0.14	0.25	64.64	107.37	0.06	0.09	0.01	134.84	57.54	0.65	147.71	75.1	1.07	0.12	0.06
NACL	SUM	25	0.06	0.05	0.4	-16.31	37.38	-0.01	0.02	0	-4.67	-18.95	-0.19	41.95	42.57	0.45	0.03	0.16
NACL	FAL	23	0.06	0.08	0.3	43.96	81.54	0.03	0.05	0	220.07	39.42	0.44	240.68	66.48	0.82	0.07	0.09
NACL	ALL	95	0.07	0.11	0.27	56.54	94.73	0.04	0.07	0.01	203.19	38.44	0.57	225.52	67.79	0.95	0.09	0.07
NH4	WIN	21	1.55	1.44	0.73	-7.52	40.6	-0.12	0.63	0.71	24.71	6.93	-0.08	52.41	41.83	0.44	0.85	0.54
NH4	SPR	25	1.47	1.58	0.9	7.52	24.71	0.11	0.36	0.23	29.63	16.86	0.08	41.93	31.72	0.25	0.49	0.8
NH4	SUM	26	0.91	0.87	0.85	-4.51	32.2	-0.04	0.29	0.19	44.64	19.76	-0.05	62.97	41.98	0.34	0.44	0.73
NH4	FAL	23	0.74	0.94	0.95	26.6	33.77	0.2	0.25	0.06	74.98	35.89	0.27	81.49	43.38	0.34	0.31	0.9
NH4	ALL	95	1.16	1.2	0.84	3.41	32.43	0.04	0.38	0.3	43.63	20.07	0.03	59.58	39.58	0.32	0.55	0.71
NO3	WIN	22	3.3	3.15	0.79	-4.68	32.23	-0.15	1.06	2.08	105.62	7.61	-0.05	131.52	40.43	0.34	1.45	0.62
NO3	SPR	25	2.77	2.85	0.91	2.63	27.4	0.07	0.76	1.1	12.96	-3.8	0.03	43.06	34.04	0.27	1.05	0.83
NO3	SUM	26	0.87	0.36	0.77	-59.08	59.57	-0.52	0.52	0.31	-55.7	-82.66	-1.44	56.28	83.22	1.46	0.76	0.59
NO3	FAL	23	1.33	1.5	0.76	12.9	47.46	0.17	0.63	1.2	6.58	-18.8	0.13	58.34	54.48	0.47	1.11	0.58
NO3	ALL	96	2.03	1.92	0.86	-5.65	36.08	-0.11	0.73	1.21	14.07	-26.13	-0.06	70.57	53.72	0.38	1.1	0.74
OC	WIN	23	1.41	3.54	0.71	151.69	151.69	2.13	2.13	0.96	164.13	84.17	1.52	164.13	84.17	1.52	2.35	0.5
OC	SPR	25	1.48	2.62	0.62	76.84	79.33	1.14	1.17	0.89	92.3	55.91	0.77	93.51	57.22	0.79	1.48	0.38
OC	SUM	26	2.2	2.67	0.45	21.46	40.61	0.47	0.89	1.51	31.18	20.12	0.21	42.1	33.13	0.41	1.32	0.2
OC	FAL	23	1.35	2.25	0.69	66.23	68.52	0.9	0.93	0.6	81.26	51.3	0.66	82.68	52.85	0.69	1.19	0.47
OC	ALL	97	1.62	2.76	0.47	70	77.98	1.14	1.27	1.37	90.33	51.92	0.7	93.91	56.12	0.78	1.63	0.22
PM-2.5	WIN	23	11.45	15.38	0.76	34.33	39.1	3.93	4.48	13.11	54.82	34.71	0.34	57.38	37.47	0.39	5.34	0.57
PM-2.5	SPR	25	11.58	15.2	0.89	31.22	33.69	3.62	3.9	9.01	40.01	29.24	0.31	42.78	32.15	0.34	4.7	0.78
PM-2.5	SUM	26	13.07	12.98	0.79	-0.69	22.89	-0.09	2.99	14.48	11.06	6.2	-0.01	26.72	24.23	0.23	3.81	0.63
PM-2.5	FAL	23	8.72	12.12	0.85	39.02	43.19	3.4	3.76	9.75	47.35	32.98	0.39	51.37	37.29	0.43	4.62	0.73
PM-2.5	ALL	97	11.27	13.92	0.77	23.48	33.38	2.65	3.76	14.4	37.5	25.25	0.23	43.97	32.51	0.33	4.63	0.6
SO4	WIN	22	1.8	1.37	0.5	-23.93	48.8	-0.43	0.88	1.39	196.4	-18	-0.31	251.13	55.69	0.64	1.26	0.25
SO4	SPR	25	2.2	2.2	0.82	0.17	24.67	0	0.54	0.51	8.51	1.96	0	29.85	28.19	0.25	0.71	0.67
SO4	SUM	26	2.77	2.41	0.87	-12.75	29.05	-0.35	0.8	1.46	6.29	0.31	-0.15	28.57	27.46	0.33	1.26	0.75
SO4	FAL	24	1.62	1.51	0.85	-7.02	31.51	-0.11	0.51	0.52	125.99	3.35	-0.08	153.15	36.42	0.34	0.73	0.73
SO4	ALL	97	2.12	1.9	0.79	-10.36	32.14	-0.22	0.68	1	79.6	-2.66	-0.12	110.2	36.27	0.36	1.02	0.62

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 170314201																		
EC	WIN	20	0.44	1.44	0.55	224.09	224.09	0.99	0.99	0.16	270.73	106.9	2.24	270.73	106.9	2.24	1.07	0.31
EC	SPR	17	0.36	0.97	0.65	170.36	170.36	0.61	0.61	0.23	185.7	87.64	1.7	185.7	87.64	1.7	0.78	0.43
EC	SUM	30	0.68	1.12	0.73	63.92	65.39	0.44	0.45	0.19	71.61	47.08	0.64	72.84	48.34	0.65	0.61	0.53
EC	FAL	29	0.62	1.38	0.91	124.22	124.22	0.76	0.76	0.25	142.29	78.02	1.24	142.29	78.02	1.24	0.91	0.83
EC	ALL	96	0.55	1.24	0.73	122.94	123.5	0.68	0.69	0.25	154.65	76.07	1.23	155.03	76.47	1.24	0.85	0.53
NACL	WIN	28	0.07	0.16	0.3	111.46	124.73	0.08	0.09	0	197.95	80.75	1.11	202.3	86.14	1.25	0.1	0.09
NACL	SPR	30	0.1	0.11	0.54	11.6	91.74	0.01	0.09	0.04	122.09	46.75	0.12	140.74	74.33	0.92	0.2	0.29
NACL	SUM	28	0.07	0.04	0.18	-39.35	53.51	-0.03	0.04	0	-15.88	-34.52	-0.65	45.16	55.43	0.88	0.06	0.03
NACL	FAL	26	0.07	0.07	0.37	0.4	51.77	0	0.04	0	18.13	-2.52	0	59.12	50.05	0.52	0.05	0.14
NACL	ALL	112	0.08	0.1	0.36	21.69	82.81	0.02	0.07	0.01	82.43	23.5	0.22	113.29	66.92	0.83	0.12	0.13
NH4	WIN	28	1.69	1.43	0.73	-15.34	41.19	-0.26	0.7	0.9	19.17	1.61	-0.18	50.74	42.5	0.49	0.98	0.53
NH4	SPR	29	1.18	1.5	0.83	27.86	40.02	0.33	0.47	0.34	102.29	33.47	0.28	111.07	43.32	0.4	0.67	0.69
NH4	SUM	27	0.81	0.89	0.81	9.56	35.16	0.08	0.28	0.14	51.73	26.42	0.1	65.03	42.99	0.35	0.39	0.65
NH4	FAL	26	0.65	0.85	0.94	31.31	41.2	0.2	0.27	0.06	229.74	54.3	0.31	238.25	64.09	0.41	0.32	0.88
NH4	ALL	110	1.09	1.18	0.78	8	39.76	0.09	0.43	0.42	98.85	28.55	0.08	114.47	47.94	0.4	0.65	0.61
NO3	WIN	28	3.92	3.48	0.77	-11.2	33.61	-0.44	1.32	3.29	9.02	-2.67	-0.13	38.84	35.46	0.38	1.87	0.6
NO3	SPR	30	2.11	2.68	0.81	26.63	48.91	0.56	1.03	2.16	150.66	18.09	0.27	176.83	51.98	0.49	1.57	0.65
NO3	SUM	28	0.72	0.34	0.76	-53.27	55.97	-0.39	0.41	0.19	-57.18	-93.68	-1.14	60.02	96.36	1.2	0.59	0.58
NO3	FAL	27	1.13	1.24	0.73	9.77	47.81	0.11	0.54	1.17	1.95	-26.93	0.1	62.63	63.51	0.48	1.09	0.54
NO3	ALL	113	1.98	1.95	0.8	-1.44	41.91	-0.03	0.83	1.89	28.53	-25.51	-0.01	86.41	61.64	0.43	1.37	0.65
OC	WIN	20	1.31	3.63	0.67	176.55	176.55	2.32	2.32	0.82	250.01	96.31	1.77	250.01	96.31	1.77	2.49	0.44
OC	SPR	17	0.87	1.97	0.78	127.66	127.66	1.11	1.11	0.58	186.23	83.61	1.28	186.23	83.61	1.28	1.34	0.61
OC	SUM	30	1.83	2.35	0.57	27.98	50.46	0.51	0.93	1.23	41.87	25.45	0.28	56.31	42.56	0.5	1.22	0.33
OC	FAL	29	1.32	2.24	0.66	69.43	69.9	0.92	0.92	0.97	93.19	49.95	0.69	94.36	51.23	0.7	1.35	0.44
OC	ALL	96	1.4	2.52	0.54	79.77	89.12	1.12	1.25	1.38	126.3	57.91	0.8	131.17	63.65	0.89	1.62	0.3
PM-2.5	WIN	28	11.74	14.64	0.67	24.68	40.1	2.9	4.71	20.27	41.41	27.4	0.25	51.14	38.36	0.4	5.35	0.46
PM-2.5	SPR	30	8.68	12.66	0.84	45.95	51.38	3.99	4.46	16.31	165.4	38.74	0.46	171	45.15	0.51	5.68	0.71
PM-2.5	SUM	28	11.84	10.36	0.72	-12.49	25.94	-1.48	3.07	15.71	-6.68	-11.78	-0.14	25.66	27.86	0.3	4.23	0.52
PM-2.5	FAL	27	8.6	10.57	0.88	22.97	31.44	1.97	2.7	11.27	27.62	17.95	0.23	37.15	28.95	0.31	3.89	0.78
PM-2.5	ALL	113	10.2	12.08	0.73	18.45	36.83	1.88	3.76	20.17	59.12	18.44	0.18	73.3	35.31	0.37	4.87	0.53
SO4	WIN	28	1.85	1.19	0.51	-35.88	49.29	-0.66	0.91	1.38	-25.47	-38.66	-0.56	42.13	51.42	0.77	1.35	0.26
SO4	SPR	30	1.84	2.07	0.82	12.51	29.82	0.23	0.55	0.53	123.62	14.79	0.13	139.37	33.49	0.3	0.76	0.67
SO4	SUM	28	2.64	2.33	0.74	-11.79	34.73	-0.31	0.92	1.74	7.86	-2.62	-0.13	36.87	34.43	0.39	1.35	0.55
SO4	FAL	27	1.7	1.38	0.89	-19.11	36.66	-0.33	0.62	0.66	47.75	-6.06	-0.24	86.15	42.02	0.45	0.87	0.79
SO4	ALL	113	2.01	1.75	0.72	-12.87	37.26	-0.26	0.75	1.17	39.87	-7.75	-0.15	77.16	40.2	0.43	1.11	0.52

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 170434002																		
EC	WIN	11	0.46	1.03	0.85	125.11	125.11	0.57	0.57	0.02	142.88	79.84	1.25	142.88	79.84	1.25	0.59	0.72
EC	SPR	15	0.53	0.89	0.75	68.76	73.04	0.36	0.39	0.05	84.47	54.4	0.69	86.67	56.8	0.73	0.42	0.56
EC	SUM	16	0.83	1.04	0.7	25.75	27.2	0.21	0.22	0.04	31.38	23.94	0.26	32.47	25.05	0.27	0.29	0.49
EC	FAL	15	0.57	1.14	0.78	98.41	98.41	0.56	0.56	0.09	110.06	65.57	0.98	110.06	65.57	0.98	0.64	0.61
EC	ALL	57	0.61	1.02	0.65	67.85	69.38	0.41	0.42	0.07	87.58	53.7	0.68	88.46	54.64	0.69	0.49	0.42
NACL	WIN	14	0.13	0.1	0.05	-22.05	81.84	-0.03	0.11	0.02	74.39	22.21	-0.28	110.23	78.14	1.05	0.16	0
NACL	SPR	15	0.05	0.09	0.78	84.02	85.49	0.04	0.04	0	93.37	53.59	0.84	95.32	55.69	0.85	0.05	0.6
NACL	SUM	14	0.06	0.04	0.02	-38.59	50.8	-0.02	0.03	0	-30.46	-48.74	-0.63	45.05	61.52	0.83	0.04	0
NACL	FAL	15	0.04	0.05	0.54	45.82	56.19	0.02	0.02	0	46.51	29.24	0.46	56.27	40.6	0.56	0.03	0.29
NACL	ALL	58	0.07	0.07	0.25	2.8	72.21	0	0.05	0.01	46.78	15.02	0.03	76.68	58.61	0.72	0.08	0.06
NH4	WIN	14	1.72	1.27	0.82	-26.17	41.85	-0.45	0.72	1.31	1.12	-10.86	-0.35	39.26	39.17	0.57	1.23	0.67
NH4	SPR	15	1.59	1.62	0.9	1.82	22.85	0.03	0.36	0.24	11.53	2.74	0.02	31.62	26	0.23	0.49	0.8
NH4	SUM	14	0.87	0.88	0.71	1.34	30.94	0.01	0.27	0.14	22.19	11.52	0.01	38.85	31.72	0.31	0.37	0.51
NH4	FAL	14	0.79	1.05	0.43	33.45	58.11	0.26	0.46	0.73	102.23	30.53	0.33	119.61	50.1	0.58	0.89	0.19
NH4	ALL	57	1.25	1.21	0.69	-2.84	36.13	-0.04	0.45	0.66	33.87	8.38	-0.03	56.88	36.56	0.37	0.82	0.47
NO3	WIN	14	3.94	3.16	0.87	-19.76	29.55	-0.78	1.17	2.62	-8.09	-15.79	-0.25	29.36	32.59	0.37	1.8	0.76
NO3	SPR	15	2.6	2.93	0.89	12.63	42.88	0.33	1.11	1.97	3.86	-14.95	0.13	52.82	52.64	0.43	1.44	0.8
NO3	SUM	14	0.63	0.37	0.21	-42.31	51.75	-0.27	0.33	0.11	-41.99	-67.29	-0.73	51.29	75.5	0.9	0.43	0.04
NO3	FAL	15	1.34	1.86	0.57	39.01	56.88	0.52	0.76	2.84	133.99	-2.17	0.39	173.47	53.57	0.57	1.77	0.33
NO3	ALL	58	2.12	2.09	0.78	-1.55	39.83	-0.03	0.85	2.16	23.56	-24.48	-0.02	77.99	53.56	0.4	1.47	0.61
OC	WIN	11	1.32	2.88	0.89	117.77	117.77	1.56	1.56	0.32	139.92	77.23	1.18	139.92	77.23	1.18	1.66	0.79
OC	SPR	15	1.46	2.18	0.74	48.87	54.6	0.71	0.8	0.54	60.4	41.16	0.49	62.88	43.9	0.55	1.02	0.54
OC	SUM	16	2.48	2.43	0.57	-1.85	34.06	-0.05	0.84	1.47	1.23	-4.86	-0.02	29.65	29.87	0.35	1.21	0.33
OC	FAL	15	1.38	1.78	0.5	29.37	43.44	0.4	0.6	0.41	47.81	29.97	0.29	56.46	39.88	0.43	0.76	0.25
OC	ALL	57	1.7	2.28	0.57	34.32	53.32	0.58	0.91	1.03	55.82	32.26	0.34	66.73	45.34	0.53	1.17	0.32
PM-2.5	WIN	14	11.97	12.15	0.79	1.47	25.76	0.18	3.08	18.03	15.91	8.97	0.01	30.18	25.53	0.26	4.25	0.62
PM-2.5	SPR	15	10.82	12.54	0.76	15.87	32.1	1.72	3.47	18.67	20.14	11	0.16	35.86	30.51	0.32	4.65	0.58
PM-2.5	SUM	16	14.11	10.65	0.84	-24.55	25.01	-3.46	3.53	7.91	-21.8	-25.92	-0.33	22.77	26.86	0.33	4.46	0.7
PM-2.5	FAL	15	8.71	10.1	0.81	15.97	29.7	1.39	2.59	11.32	22.02	13.82	0.16	32.32	25.64	0.3	3.64	0.65
PM-2.5	ALL	60	11.44	11.33	0.69	-0.93	27.76	-0.11	3.18	18.23	8.44	1.39	-0.01	30.16	27.16	0.28	4.27	0.48
SO4	WIN	14	1.84	1	0.57	-45.55	53.84	-0.84	0.99	1.45	-30.07	-46.45	-0.84	46.13	58.96	0.99	1.47	0.32
SO4	SPR	15	2.52	2.21	0.89	-12.6	22.99	-0.32	0.58	0.46	-6.32	-11.85	-0.14	26.7	27.71	0.26	0.75	0.79
SO4	SUM	14	2.79	2.26	0.68	-18.84	29.53	-0.53	0.82	1.43	-6.51	-11.4	-0.23	23.23	26.48	0.36	1.31	0.46
SO4	FAL	15	1.57	1.32	0.38	-15.66	49.87	-0.25	0.78	1.22	6.85	-9.96	-0.19	50.37	45.31	0.59	1.13	0.15
SO4	ALL	58	2.18	1.7	0.68	-21.84	36.34	-0.48	0.79	1.18	-8.69	-19.6	-0.28	36.67	39.51	0.46	1.19	0.46

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 180190006																		
EC	WIN	15	0.59	0.98	0.85	65.23	67.3	0.39	0.4	0.05	72.14	49	0.65	74.78	51.93	0.67	0.44	0.73
EC	SPR	14	0.61	0.7	0.85	14.82	24.29	0.09	0.15	0.03	35.69	23.38	0.15	41.87	29.95	0.24	0.2	0.73
EC	SUM	16	0.91	0.87	0.83	-3.92	16.56	-0.04	0.15	0.04	1.24	-1.54	-0.04	18.08	17.81	0.17	0.2	0.69
EC	FAL	14	0.79	0.9	0.94	12.88	18.09	0.1	0.14	0.02	24.74	18.67	0.13	27.65	21.74	0.18	0.18	0.88
EC	ALL	59	0.73	0.86	0.77	18.38	28.94	0.13	0.21	0.06	33.02	22.02	0.18	40.41	30.3	0.29	0.28	0.6
NACL	WIN	15	0.09	0.12	0.21	33.38	66.76	0.03	0.06	0	77.06	35.73	0.33	93.78	55.87	0.67	0.07	0.04
NACL	SPR	15	0.11	0.1	0.43	-5.19	60.34	-0.01	0.06	0.01	21.89	-3.14	-0.05	63.13	61.11	0.64	0.1	0.18
NACL	SUM	16	0.08	0.04	0.27	-53.54	59.61	-0.05	0.05	0	-33.2	-54.28	-1.15	52.19	69.37	1.28	0.07	0.07
NACL	FAL	15	0.1	0.05	0.13	-51.59	60.14	-0.05	0.06	0.01	-16.16	-36.98	-1.07	48.81	59.61	1.24	0.11	0.02
NACL	ALL	61	0.1	0.08	0.24	-20.22	61.56	-0.02	0.06	0.01	11.65	-15.32	-0.25	64.27	61.62	0.77	0.09	0.06
NH4	WIN	15	1.58	1.27	0.82	-19.58	32.8	-0.31	0.52	0.39	-7.03	-13.57	-0.24	29.46	32.04	0.41	0.7	0.67
NH4	SPR	15	1.11	1.14	0.9	2.84	25.38	0.03	0.28	0.13	-0.32	-4.69	0.03	24.04	25.26	0.25	0.36	0.81
NH4	SUM	16	1.57	1.26	0.84	-19.55	27.64	-0.31	0.43	0.21	-11.08	-17.93	-0.24	30.01	32.18	0.34	0.55	0.71
NH4	FAL	15	0.71	0.77	0.61	7.77	43.65	0.06	0.31	0.25	37.78	19.78	0.08	52.23	38.31	0.44	0.5	0.37
NH4	ALL	61	1.25	1.11	0.79	-10.81	31	-0.13	0.39	0.27	4.57	-4.33	-0.12	33.87	31.95	0.35	0.54	0.63
NO3	WIN	15	2.83	2.62	0.65	-7.54	40.25	-0.21	1.14	1.89	9.06	-8.45	-0.08	51.26	50.53	0.44	1.39	0.42
NO3	SPR	15	0.92	1.33	0.74	44.53	88.6	0.41	0.82	1.82	23.48	-14.05	0.45	81.12	71.33	0.89	1.41	0.55
NO3	SUM	16	0.51	0.24	0.77	-54.14	54.14	-0.28	0.28	0.05	-52.69	-77.69	-1.18	52.69	77.69	1.18	0.36	0.6
NO3	FAL	15	0.94	0.69	0.75	-26.98	44.99	-0.25	0.42	0.26	-23.44	-43.49	-0.37	49.92	61.61	0.62	0.57	0.57
NO3	ALL	61	1.29	1.2	0.74	-6.74	51.06	-0.09	0.66	1.07	-11.58	-36.61	-0.07	58.65	65.49	0.55	1.04	0.54
OC	WIN	15	1.74	4.83	0.85	177.43	177.43	3.09	3.09	2.87	188.82	92.05	1.77	188.82	92.05	1.77	3.52	0.72
OC	SPR	14	1.83	2.46	0.71	34.35	42.34	0.63	0.77	0.68	62.26	37.22	0.34	66.9	42.29	0.42	1.04	0.51
OC	SUM	16	2.58	3.26	0.81	26.75	36.41	0.69	0.94	0.75	39.32	25.99	0.27	47.6	35.75	0.36	1.11	0.66
OC	FAL	14	1.81	2.99	0.84	65.35	65.35	1.18	1.18	0.9	92.87	53.59	0.65	92.87	53.59	0.65	1.51	0.71
OC	ALL	59	2	3.41	0.64	69.92	75.01	1.4	1.5	2.32	95.48	52	0.7	98.83	55.85	0.75	2.07	0.4
PM-2.5	WIN	15	11.98	15.38	0.82	28.35	32.39	3.4	3.88	12.28	38.54	27.58	0.28	42.41	31.72	0.32	4.88	0.67
PM-2.5	SPR	15	10.97	10.79	0.71	-1.61	23.42	-0.18	2.57	12.55	-1.95	-6.9	-0.02	25.31	24.94	0.24	3.55	0.5
PM-2.5	SUM	16	18.31	13.41	0.86	-26.78	28.19	-4.9	5.16	16.19	-24.91	-30.04	-0.37	26.34	31.39	0.39	6.34	0.74
PM-2.5	FAL	15	9.76	10.35	0.83	6.04	24.72	0.59	2.41	7.41	12.24	5.53	0.06	32.05	28.21	0.25	2.79	0.68
PM-2.5	ALL	61	12.85	12.5	0.72	-2.72	27.51	-0.35	3.53	21.29	5.47	-1.43	-0.03	31.44	29.1	0.28	4.63	0.51
SO4	WIN	15	2.5	1.46	0.87	-41.58	42.31	-1.04	1.06	0.96	-36.81	-49.53	-0.71	38.13	50.79	0.72	1.43	0.75
SO4	SPR	15	3.02	2.39	0.78	-20.93	34.12	-0.63	1.03	1.06	-24.24	-33.96	-0.26	34.68	42.98	0.43	1.21	0.6
SO4	SUM	16	5.45	3.6	0.82	-33.81	37.28	-1.84	2.03	2.57	-31.36	-41.43	-0.51	35.43	45.19	0.56	2.44	0.68
SO4	FAL	15	2.03	1.69	0.73	-17.04	30.22	-0.35	0.61	0.86	-12.51	-18.81	-0.21	24.31	27.74	0.36	0.99	0.53
SO4	ALL	61	3.28	2.31	0.82	-29.8	36.43	-0.98	1.2	1.71	-26.32	-36.02	-0.42	33.17	41.73	0.52	1.63	0.68

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 180372001																		
EC	WIN	14	0.5	0.51	0.65	1.89	30.64	0.01	0.15	0.03	4.87	-2.14	0.02	34.19	33.82	0.31	0.17	0.42
EC	SPR	14	0.46	0.37	0.7	-18.11	31.47	-0.08	0.14	0.03	-9.45	-15.61	-0.22	29.32	31.96	0.38	0.19	0.49
EC	SUM	16	0.7	0.43	0.87	-38.52	40.23	-0.27	0.28	0.03	-32.06	-42.15	-0.63	39.12	47.66	0.65	0.31	0.75
EC	FAL	15	0.44	0.44	0.78	-1.53	22.87	-0.01	0.1	0.02	-0.26	-3.66	-0.02	22.74	22.8	0.23	0.13	0.6
EC	ALL	59	0.53	0.44	0.62	-17.34	32.57	-0.09	0.17	0.04	-9.85	-16.57	-0.21	31.46	34.33	0.39	0.22	0.38
NACL	WIN	15	0.16	0.13	0.07	-16.12	83.7	-0.03	0.13	0.05	67.98	18.99	-0.19	101.17	76.03	1	0.23	0
NACL	SPR	15	0.12	0.13	0.31	10.48	79.97	0.01	0.09	0.02	191.89	6.66	0.1	234.44	71.65	0.8	0.14	0.09
NACL	SUM	15	0.09	0.05	0.26	-46.67	51.57	-0.04	0.05	0	-33.27	-52.79	-0.88	45.28	61.86	0.97	0.07	0.07
NACL	FAL	15	0.08	0.07	0.07	-16.1	68.86	-0.01	0.06	0.01	37.48	-2.85	-0.19	81.99	63.96	0.82	0.08	0
NACL	ALL	60	0.11	0.1	0.16	-15.4	73.45	-0.02	0.08	0.02	66.02	-7.5	-0.18	115.72	68.38	0.87	0.14	0.02
NH4	WIN	15	1.94	1.47	0.85	-24.22	32.13	-0.47	0.62	0.55	-11.43	-19.17	-0.32	29.89	32.64	0.42	0.88	0.73
NH4	SPR	15	1.32	1.61	0.83	21.75	32.09	0.29	0.42	0.67	12.89	6.81	0.22	26.12	21.75	0.32	0.87	0.69
NH4	SUM	15	1.67	1.62	0.94	-3.23	20.43	-0.05	0.34	0.19	20.37	5.45	-0.03	41.9	29.56	0.21	0.44	0.87
NH4	FAL	15	0.81	1.08	0.72	33.67	51.68	0.27	0.42	0.34	69.52	36.45	0.34	81.63	50.42	0.52	0.64	0.51
NH4	ALL	60	1.44	1.44	0.77	0.65	31.47	0.01	0.45	0.53	22.84	7.38	0.01	44.88	33.59	0.31	0.73	0.59
NO3	WIN	15	3.69	3.31	0.74	-10.33	36.91	-0.38	1.36	2.71	5.12	-10.39	-0.12	47.84	47.68	0.41	1.69	0.55
NO3	SPR	15	1.22	2.61	0.84	113.93	127.17	1.39	1.55	4.3	89.34	43.49	1.14	105.08	63.17	1.27	2.5	0.71
NO3	SUM	15	0.58	0.85	0.52	45.9	75.67	0.27	0.44	0.42	54.16	25.45	0.46	74.55	50.14	0.76	0.7	0.27
NO3	FAL	15	1.1	1.66	0.87	50	63.79	0.55	0.7	0.65	61.16	19.1	0.5	93.22	64.68	0.64	0.98	0.76
NO3	ALL	60	1.65	2.11	0.71	27.71	61.52	0.46	1.01	2.42	52.45	19.41	0.28	80.17	56.42	0.62	1.62	0.5
OC	WIN	14	1.65	2.64	0.64	59.89	63.65	0.99	1.05	0.74	73.68	44.64	0.6	76.45	47.64	0.64	1.31	0.41
OC	SPR	14	1.86	1.74	0.77	-6.24	36.12	-0.12	0.67	0.63	9.79	-0.65	-0.07	39.14	35.81	0.39	0.8	0.6
OC	SUM	16	2.24	2.57	0.86	14.99	28.21	0.34	0.63	0.49	23.6	13.47	0.15	37.4	30.52	0.28	0.78	0.74
OC	FAL	15	1.19	1.57	0.82	31.93	39.34	0.38	0.47	0.21	40.91	25.45	0.32	50.47	36.38	0.39	0.6	0.68
OC	ALL	59	1.74	2.14	0.74	22.68	40.13	0.4	0.7	0.66	36.61	20.56	0.23	50.4	37.33	0.4	0.9	0.55
PM-2.5	WIN	15	12.61	12.07	0.78	-4.34	25.07	-0.55	3.16	16.02	6.06	-4.03	-0.05	34.69	32.45	0.26	4.04	0.61
PM-2.5	SPR	14	10.92	10.55	0.61	-3.37	31.39	-0.37	3.43	25.1	-7.23	-16.37	-0.03	31.66	34.44	0.32	5.02	0.37
PM-2.5	SUM	15	17.77	12.34	0.93	-30.6	32.19	-5.44	5.72	12.89	-29.18	-35.95	-0.44	31.37	37.97	0.46	6.52	0.87
PM-2.5	FAL	15	7.81	8.77	0.77	12.19	29.74	0.95	2.32	8.18	12.75	7.54	0.12	29.42	26.59	0.3	3.01	0.6
PM-2.5	ALL	59	12.3	10.94	0.76	-11.11	29.77	-1.37	3.66	21.37	-4.35	-12.13	-0.12	31.79	32.84	0.33	4.82	0.57
SO4	WIN	15	2.58	1.41	0.88	-45.5	45.5	-1.17	1.17	0.5	-46.09	-64.2	-0.83	46.09	64.2	0.83	1.37	0.78
SO4	SPR	15	3.27	2.43	0.78	-25.54	35.09	-0.83	1.15	0.99	-28.72	-39.86	-0.34	37.72	47.51	0.47	1.3	0.61
SO4	SUM	15	5.26	3.8	0.94	-27.66	32.94	-1.45	1.73	2.09	-22.55	-30.7	-0.38	34.59	40.51	0.46	2.05	0.88
SO4	FAL	15	2.14	1.69	0.63	-21.13	40.03	-0.45	0.86	1.33	-13.83	-24.2	-0.27	36.98	41.73	0.51	1.24	0.4
SO4	ALL	60	3.31	2.33	0.9	-29.55	37.06	-0.98	1.23	1.37	-27.8	-39.74	-0.42	38.85	48.49	0.53	1.53	0.8

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 180650003																		
EC	WIN	13	0.31	0.53	0.55	71.08	76.09	0.22	0.24	0.02	83.63	52.41	0.71	85.95	54.93	0.76	0.27	0.3
EC	SPR	13	0.35	0.34	0.78	-4.02	25.73	-0.01	0.09	0.01	11.89	4.22	-0.04	32.76	29.07	0.27	0.12	0.6
EC	SUM	15	0.54	0.49	0.83	-10.41	17.31	-0.06	0.09	0.01	-6.96	-9.44	-0.12	18.67	19.1	0.19	0.11	0.68
EC	FAL	14	0.38	0.49	0.7	30.26	45.8	0.11	0.17	0.05	42.67	24.88	0.3	51.96	36.63	0.46	0.25	0.48
EC	ALL	55	0.4	0.46	0.58	15.63	36.69	0.06	0.15	0.03	31.54	17.15	0.16	46.38	34.39	0.37	0.2	0.34
NACL	WIN	15	0.05	0.1	0.15	106.34	115.8	0.05	0.06	0	228.39	62.51	1.06	239.31	78.53	1.16	0.07	0.02
NACL	SPR	14	0.04	0.09	0.87	109.76	110.46	0.05	0.05	0	126.5	67.6	1.1	127.96	69.15	1.1	0.06	0.76
NACL	SUM	16	0.05	0.03	0.17	-42.03	47.21	-0.02	0.03	0	-31.61	-47.67	-0.72	43.67	56.99	0.81	0.03	0.03
NACL	FAL	14	0.03	0.04	0.27	28.78	60.35	0.01	0.02	0	45.86	28.15	0.29	61.12	47.89	0.6	0.02	0.08
NACL	ALL	59	0.04	0.06	0.29	45.08	82.54	0.02	0.04	0	90.39	25.68	0.45	117.55	63.19	0.83	0.05	0.08
NH4	WIN	15	1.43	1.41	0.82	-1.59	33.67	-0.02	0.48	0.36	14.85	5.87	-0.02	39.1	35.28	0.34	0.6	0.67
NH4	SPR	14	1.42	2.01	0.84	41.99	46.3	0.59	0.66	0.59	43.36	27.86	0.42	48.22	33.11	0.46	0.97	0.7
NH4	SUM	16	1.3	1.39	0.79	6.76	30.92	0.09	0.4	0.24	38.82	16.07	0.07	54.97	34.6	0.31	0.5	0.63
NH4	FAL	12	0.94	1.16	0.71	24.43	45.9	0.23	0.43	0.23	37.99	22.23	0.24	54.71	42.39	0.46	0.53	0.5
NH4	ALL	57	1.29	1.5	0.73	16.54	38.17	0.21	0.49	0.41	33.45	17.58	0.17	49.08	36.06	0.38	0.68	0.53
NO3	WIN	15	3.35	3.53	0.68	5.47	46.58	0.18	1.56	3.57	27.35	10.24	0.05	56.98	48.42	0.47	1.9	0.47
NO3	SPR	14	2.07	3.84	0.75	85.35	92.65	1.77	1.92	3.49	110.52	56.61	0.85	116.61	63.62	0.93	2.57	0.56
NO3	SUM	16	0.69	0.68	0.64	-2.06	42.84	-0.01	0.3	0.14	4.06	-17.33	-0.02	54.58	57.01	0.44	0.38	0.4
NO3	FAL	14	1.14	1.74	0.66	52.11	65.22	0.6	0.74	1.53	59.65	21.04	0.52	84.61	56.4	0.65	1.37	0.44
NO3	ALL	59	1.8	2.41	0.7	33.47	61.55	0.6	1.11	2.61	48.43	16.33	0.33	77.04	56.25	0.62	1.72	0.5
OC	WIN	13	0.94	2.36	0.83	152.37	152.37	1.43	1.43	0.41	174.28	86.3	1.52	174.28	86.3	1.52	1.56	0.69
OC	SPR	13	1.03	1.3	0.76	25.72	46.97	0.27	0.49	0.23	89.73	38.37	0.26	104.4	56.13	0.47	0.55	0.58
OC	SUM	15	1.91	1.98	0.86	4.13	26.42	0.08	0.5	0.31	7.19	1.18	0.04	30.24	29.5	0.26	0.57	0.73
OC	FAL	14	0.92	1.45	0.91	58.41	58.41	0.54	0.54	0.17	196.79	58.99	0.58	196.79	58.99	0.58	0.67	0.83
OC	ALL	55	1.22	1.78	0.69	45.78	59.55	0.56	0.73	0.54	114.45	44.8	0.46	124.21	56.73	0.6	0.92	0.47
PM-2.5	WIN	14	10.18	11.21	0.82	10.09	30.23	1.03	3.08	10.82	19.28	10.48	0.1	37.84	33.77	0.3	3.45	0.68
PM-2.5	SPR	14	9.87	11.94	0.73	20.94	33.81	2.07	3.34	16.67	22.08	12.87	0.21	37.13	31.56	0.34	4.58	0.54
PM-2.5	SUM	16	15.03	11.43	0.77	-23.93	26.97	-3.6	4.05	17.61	-21.21	-26.11	-0.31	24.43	29.13	0.35	5.53	0.59
PM-2.5	FAL	14	7.3	8.53	0.65	16.86	45.11	1.23	3.29	15.32	23.9	6.86	0.17	52.24	44.6	0.45	4.1	0.42
PM-2.5	ALL	58	10.75	10.8	0.69	0.48	32.21	0.05	3.46	20.41	9.9	0.09	0	37.44	34.57	0.32	4.52	0.47
SO4	WIN	15	1.97	1.1	0.75	-43.99	44.61	-0.86	0.88	1.04	-35.98	-51.08	-0.79	37	52.06	0.8	1.34	0.57
SO4	SPR	14	2.72	2.48	0.84	-8.88	24.39	-0.24	0.66	0.65	-12.64	-18	-0.1	25.57	28.49	0.27	0.84	0.7
SO4	SUM	16	4.12	3.6	0.84	-12.53	25.81	-0.52	1.06	1.55	-7.56	-12.01	-0.14	24.37	26.44	0.3	1.35	0.71
SO4	FAL	14	2	1.49	0.87	-25.2	29.48	-0.5	0.59	0.53	-15.66	-24.43	-0.34	29.63	35.17	0.39	0.88	0.76
SO4	ALL	59	2.74	2.2	0.85	-19.61	29.55	-0.54	0.81	1.01	-17.91	-26.31	-0.24	29.11	35.51	0.37	1.14	0.72

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 180890022																		
EC	WIN	15	0.98	1.27	0.09	29.35	58.43	0.29	0.57	0.36	58.08	28.87	0.29	77.13	52.54	0.58	0.67	0.01
EC	SPR	15	0.81	0.99	0.6	21.26	44.17	0.17	0.36	0.14	36.15	23.55	0.21	50.18	40.67	0.44	0.42	0.36
EC	SUM	16	1.26	1.2	0.16	-5.12	27.77	-0.06	0.35	0.3	9.05	0.51	-0.05	30.99	30.31	0.29	0.55	0.03
EC	FAL	14	0.95	1.13	0.71	18.65	41.23	0.18	0.39	0.18	24.26	12.14	0.19	43.36	41.68	0.41	0.45	0.51
EC	ALL	60	1.01	1.15	0.41	13.84	41.52	0.14	0.42	0.26	31.63	16.07	0.14	50.21	41.11	0.42	0.53	0.17
NACL	WIN	14	0.37	0.41	0.37	10.82	90.92	0.04	0.34	0.15	273.52	60.65	0.11	305.79	106.41	0.91	0.39	0.13
NACL	SPR	13	0.09	0.31	0.13	255.56	267.85	0.22	0.23	0.03	432.62	114.94	2.56	435.49	118.1	2.68	0.28	0.02
NACL	SUM	16	0.06	0.15	0.31	145.76	145.76	0.09	0.09	0	220.8	89.94	1.46	220.8	89.94	1.46	0.1	0.09
NACL	FAL	15	0.07	0.2	0.51	185.73	185.73	0.13	0.13	0.01	286	95.6	1.86	286	95.6	1.86	0.17	0.26
NACL	ALL	58	0.14	0.26	0.48	81.63	133.08	0.12	0.19	0.05	297.87	89.94	0.82	306.3	101.69	1.33	0.25	0.23
NH4	WIN	14	2.23	1.5	0.7	-32.45	43.4	-0.72	0.97	1.97	-11.17	-23.76	-0.48	38.04	43.06	0.64	1.58	0.48
NH4	SPR	13	1.69	2.05	0.7	21.29	40.12	0.36	0.68	1.17	61	17.92	0.21	76.43	36.72	0.4	1.14	0.49
NH4	SUM	16	0.94	1	0.9	6.43	25.28	0.06	0.24	0.07	63.67	25.21	0.06	76.54	39.9	0.25	0.28	0.81
NH4	FAL	15	0.91	1.04	0.75	13.74	46.36	0.13	0.42	0.42	24.56	13.06	0.14	44.64	37.78	0.46	0.66	0.56
NH4	ALL	58	1.41	1.37	0.63	-3.18	39.69	-0.04	0.56	1.02	34.89	8.61	-0.03	58.97	39.4	0.41	1.01	0.4
NO3	WIN	14	3.89	3.18	0.84	-18.27	31.82	-0.71	1.24	2.83	-5.1	-14.1	-0.22	33.5	34.43	0.39	1.83	0.7
NO3	SPR	13	2.75	3.76	0.8	36.93	52.13	1.02	1.43	5.41	31.42	9.7	0.37	59.59	46.88	0.52	2.54	0.64
NO3	SUM	16	0.71	0.44	0.37	-37.99	46.97	-0.27	0.33	0.14	-31.75	-50.55	-0.61	43.1	59.79	0.76	0.46	0.13
NO3	FAL	15	1.42	1.77	0.51	24.45	61.07	0.35	0.87	3.74	38.99	-15.56	0.24	89.96	57.13	0.61	1.96	0.26
NO3	ALL	58	2.12	2.19	0.72	3.39	44.21	0.07	0.94	3.3	7.14	-19.2	0.03	56.6	50.09	0.44	1.82	0.52
OC	WIN	15	1.72	2.81	0.69	63.27	67.31	1.09	1.16	0.63	77.8	48.62	0.63	81.17	52.48	0.67	1.35	0.47
OC	SPR	15	1.47	2.05	0.85	39.76	41.24	0.58	0.61	0.24	48.13	33.6	0.4	50.91	36.66	0.41	0.76	0.73
OC	SUM	16	2.52	2.63	0.65	4.59	31.07	0.12	0.78	1.05	6.13	-0.6	0.05	29.05	27.77	0.31	1.03	0.42
OC	FAL	14	1.42	1.82	0.76	27.9	37.17	0.4	0.53	0.31	31.78	21.54	0.28	42.35	34.74	0.37	0.68	0.58
OC	ALL	60	1.8	2.34	0.69	30.1	42.94	0.54	0.77	0.7	40.53	25.42	0.3	50.65	37.8	0.43	0.99	0.48
PM-2.5	WIN	14	15.09	14.63	0.67	-3.08	31.86	-0.47	4.81	35.73	10.18	1.83	-0.03	34.06	30.78	0.33	6	0.45
PM-2.5	SPR	13	12.88	15.85	0.71	23.09	35.34	2.97	4.55	32.92	26.47	17.71	0.23	35.58	28.45	0.35	6.46	0.51
PM-2.5	SUM	16	15.02	13.08	0.78	-12.92	18.78	-1.94	2.82	10.32	-9.35	-12.68	-0.15	17.86	20.39	0.22	3.75	0.61
PM-2.5	FAL	15	9.85	11.83	0.84	20.12	33.98	1.98	3.35	13.73	18.65	8.84	0.2	38.9	35.71	0.34	4.2	0.71
PM-2.5	ALL	58	13.22	13.75	0.68	4.02	28.93	0.53	3.82	26.2	10.63	3.2	0.04	31.19	28.67	0.29	5.15	0.46
SO4	WIN	14	2.64	1.62	0.37	-38.55	48.69	-1.02	1.29	1.78	-24.62	-39.38	-0.63	45.36	54.52	0.79	1.68	0.14
SO4	SPR	13	2.72	2.8	0.64	3.14	31.55	0.09	0.86	1.39	18.31	7.1	0.03	37.91	33.37	0.32	1.18	0.41
SO4	SUM	16	3.21	2.86	0.9	-11.11	20.79	-0.36	0.67	0.67	-1.45	-4.56	-0.12	21.03	21.17	0.23	0.89	0.82
SO4	FAL	15	2.06	1.7	0.79	-17.42	30	-0.36	0.62	0.58	-6.73	-13.96	-0.21	29.89	33.42	0.36	0.84	0.63
SO4	ALL	58	2.66	2.25	0.7	-15.67	31.76	-0.42	0.85	1.22	-3.98	-12.78	-0.19	32.98	35.12	0.38	1.18	0.49

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 180892004																		
EC	WIN	9	0.52	1.56	0.58	201.5	201.5	1.04	1.04	0.16	211.44	98.45	2.02	211.44	98.45	2.02	1.12	0.34
EC	SPR	15	0.64	0.99	0.76	56.02	58.98	0.36	0.38	0.07	68.29	46.22	0.56	70.13	48.13	0.59	0.45	0.58
EC	SUM	16	1.01	1.24	0.53	23.71	34.73	0.24	0.35	0.11	34.48	24.2	0.24	41.85	33.31	0.35	0.4	0.29
EC	FAL	5	0.55	0.94	0.85	69.18	69.18	0.38	0.38	0.08	77.44	53.3	0.69	77.44	53.3	0.69	0.48	0.72
EC	ALL	45	0.74	1.19	0.45	61.89	68.11	0.45	0.5	0.19	85.91	49.62	0.62	89.15	53.5	0.68	0.63	0.21
NACL	WIN	9	0.19	0.49	0.07	164.21	198.54	0.31	0.37	0.06	342.8	105.11	1.64	352.03	116.76	1.99	0.39	0.01
NACL	SPR	15	0.09	0.34	0.15	281.95	289.48	0.25	0.26	0.04	373.71	104.15	2.82	378.97	110.02	2.89	0.32	0.02
NACL	SUM	16	0.07	0.16	0.16	114.39	114.39	0.09	0.09	0	159.54	73.44	1.14	159.54	73.44	1.14	0.1	0.02
NACL	FAL	5	0.04	0.17	0.24	289.11	289.11	0.13	0.13	0.01	287.48	98.82	2.89	287.48	98.82	2.89	0.16	0.06
NACL	ALL	45	0.1	0.29	0.29	192.83	208.09	0.19	0.21	0.03	281.8	92.83	1.93	285.4	97.12	2.08	0.27	0.08
NH4	WIN	10	2.03	1.74	0.75	-13.94	41.67	-0.28	0.84	1.44	24.87	6.87	-0.16	53.15	42.45	0.48	1.23	0.56
NH4	SPR	15	1.52	1.92	0.92	26.31	31.94	0.4	0.49	0.41	27.18	19.82	0.26	33.52	26.62	0.32	0.75	0.84
NH4	SUM	16	1.01	1.1	0.9	8.74	26.88	0.09	0.27	0.09	52.51	27.24	0.09	64.12	40.35	0.27	0.32	0.81
NH4	FAL	5	0.59	0.76	0.9	28.79	38.71	0.17	0.23	0.05	85.8	36.71	0.29	95.39	46.91	0.39	0.28	0.8
NH4	ALL	46	1.35	1.47	0.77	8.75	34.12	0.12	0.46	0.55	41.86	21.42	0.09	55.16	37.04	0.34	0.75	0.6
NO3	WIN	10	4.3	3.36	0.83	-21.85	35.28	-0.94	1.52	3.52	-8.91	-19.96	-0.28	38.23	41.28	0.45	2.1	0.69
NO3	SPR	15	2.58	3.12	0.88	20.84	42.5	0.54	1.1	3.03	4.52	-12.57	0.21	49.69	51.29	0.42	1.82	0.77
NO3	SUM	16	0.79	0.42	0.28	-46.34	50.03	-0.36	0.39	0.17	-38.06	-59.81	-0.86	45.63	66.2	0.93	0.55	0.08
NO3	FAL	5	0.72	0.66	0.93	-8.08	25.08	-0.06	0.18	0.05	-25.24	-38.33	-0.09	36.31	48.54	0.27	0.23	0.86
NO3	ALL	46	2.13	1.97	0.82	-7.63	39.65	-0.16	0.84	2.13	-16.44	-33.41	-0.08	44.33	54	0.43	1.47	0.67
OC	WIN	9	1.5	3.75	0.87	150.66	150.66	2.25	2.25	1.03	151.83	83.4	1.51	151.83	83.4	1.51	2.47	0.75
OC	SPR	15	1.48	2.27	0.9	53.46	53.46	0.79	0.79	0.18	61.9	44.84	0.53	61.9	44.84	0.53	0.9	0.82
OC	SUM	16	2.42	2.9	0.48	19.88	39.26	0.48	0.95	1.53	26.43	17.29	0.2	37.03	31.19	0.39	1.33	0.23
OC	FAL	5	1.12	1.65	0.86	47.47	47.47	0.53	0.53	0.19	54.03	38.44	0.47	54.03	38.44	0.47	0.69	0.74
OC	ALL	45	1.78	2.72	0.57	53.14	62.52	0.94	1.11	1.28	66.4	42.05	0.53	70.17	46.99	0.63	1.47	0.33
PM-2.5	WIN	9	13.07	16.37	0.89	25.27	36.45	3.3	4.76	15.05	47.2	32.93	0.25	52.88	38.99	0.36	5.09	0.79
PM-2.5	SPR	13	12.55	16.41	0.83	30.8	33.34	3.86	4.18	25.53	31.41	20.28	0.31	37.05	27.16	0.33	6.36	0.68
PM-2.5	SUM	16	14.98	14.63	0.78	-2.34	14.35	-0.35	2.15	9.69	2.31	0.3	-0.02	14.84	14.95	0.15	3.13	0.61
PM-2.5	FAL	5	8.1	9.97	0.74	23.05	37.46	1.87	3.03	13.43	18.38	8.05	0.23	39.38	32.91	0.37	4.11	0.56
PM-2.5	ALL	43	13.04	14.99	0.74	14.92	26.17	1.95	3.41	19.5	22.37	14.07	0.15	32.37	25.76	0.26	4.83	0.55
SO4	WIN	10	2.15	1.91	0.32	-11.16	49.35	-0.24	1.06	2.32	19.21	1.49	-0.13	52.05	43.43	0.56	1.54	0.1
SO4	SPR	15	2.55	2.97	0.88	16.64	28.41	0.42	0.72	0.56	18.3	12.71	0.17	31.05	27.73	0.28	0.86	0.77
SO4	SUM	16	3.28	3.19	0.89	-2.77	24	-0.09	0.79	0.86	13.44	8.21	-0.03	30	27.04	0.25	0.93	0.8
SO4	FAL	5	1.91	1.84	0.76	-3.66	29.76	-0.07	0.57	0.4	3.25	-2.32	-0.04	31.93	32.64	0.31	0.64	0.58
SO4	ALL	46	2.65	2.69	0.75	1.77	30.32	0.05	0.8	1.1	15.17	7.07	0.02	35.35	31.44	0.3	1.05	0.56

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 180970078																		
EC	WIN	23	0.58	1.26	0.5	117.44	118.63	0.68	0.69	0.1	150.66	77.75	1.17	151.21	78.32	1.19	0.75	0.25
EC	SPR	24	0.55	0.96	0.7	75.42	79.8	0.41	0.44	0.07	110.21	61.96	0.75	112.23	64.26	0.8	0.49	0.49
EC	SUM	24	0.92	1.21	0.81	31.32	34.93	0.29	0.32	0.09	36.67	27.05	0.31	39.61	30.28	0.35	0.42	0.65
EC	FAL	22	0.58	1.04	0.81	79.95	82.49	0.46	0.48	0.08	126.24	66.62	0.8	127.31	67.75	0.82	0.55	0.66
EC	ALL	93	0.66	1.12	0.7	69.59	72.62	0.46	0.48	0.11	105.03	57.96	0.7	106.7	59.79	0.73	0.56	0.49
NACL	WIN	19	0.08	0.18	0.48	117.66	129.47	0.1	0.11	0.01	179.34	79.52	1.18	183.3	83.95	1.29	0.13	0.23
NACL	SPR	22	0.05	0.14	0.82	163.25	164.08	0.09	0.09	0.01	191.13	80.69	1.63	192.64	82.34	1.64	0.12	0.67
NACL	SUM	25	0.05	0.04	0.75	-17.96	34.37	-0.01	0.02	0	-20.5	-31.68	-0.22	34.93	43.64	0.42	0.02	0.56
NACL	FAL	25	0.06	0.09	0.6	38.3	64.02	0.02	0.04	0	73.7	29.34	0.38	93.9	56.66	0.64	0.07	0.36
NACL	ALL	91	0.06	0.11	0.58	74.7	97.13	0.05	0.06	0.01	98.27	35.47	0.75	120.24	64.99	0.97	0.09	0.33
NH4	WIN	20	1.72	1.6	0.48	-7.13	36.45	-0.12	0.63	0.55	3.91	-7.17	-0.08	41.13	40.68	0.39	0.75	0.23
NH4	SPR	23	1.51	1.97	0.87	29.89	31.4	0.45	0.48	0.32	33.27	24.21	0.3	35.77	26.91	0.31	0.72	0.75
NH4	SUM	25	1.34	1.38	0.74	2.81	36.26	0.04	0.49	0.54	35.42	16.65	0.03	56.07	41.07	0.36	0.74	0.55
NH4	FAL	25	0.76	1.09	0.8	43.4	50.85	0.33	0.39	0.22	93.83	43.28	0.43	98.35	48.27	0.51	0.57	0.64
NH4	ALL	93	1.31	1.5	0.74	14.07	37.2	0.18	0.49	0.45	43.81	20.55	0.14	59.2	39.42	0.37	0.69	0.55
NO3	WIN	20	3.65	3.44	0.45	-5.82	37.66	-0.21	1.37	2.74	6.43	-7.44	-0.06	44.8	42.33	0.4	1.67	0.21
NO3	SPR	23	2.22	3.53	0.82	58.81	64.33	1.31	1.43	2.02	100.48	43.69	0.59	109.77	54.77	0.64	1.93	0.67
NO3	SUM	25	0.55	0.78	0.35	41.19	95.02	0.23	0.52	0.86	38.92	-7.21	0.41	94.45	72.85	0.95	0.96	0.12
NO3	FAL	25	1.14	1.82	0.58	60.47	80.3	0.69	0.91	2.32	62.32	13.7	0.6	94.97	60.64	0.8	1.67	0.33
NO3	ALL	93	1.79	2.31	0.72	29.26	57.89	0.52	1.03	2.24	53.45	10.95	0.29	87.7	58.53	0.58	1.59	0.52
OC	WIN	23	1.87	3.87	0.59	107.19	107.19	2	2	1.27	137.99	73.28	1.07	137.99	73.28	1.07	2.3	0.35
OC	SPR	24	1.56	2.36	0.68	51.17	59.12	0.8	0.92	0.65	103.32	50.78	0.51	107.7	55.74	0.59	1.13	0.46
OC	SUM	24	2.62	2.9	0.76	10.71	25.5	0.28	0.67	0.73	13.32	7.86	0.11	27.85	24.38	0.26	0.9	0.58
OC	FAL	22	1.54	2.18	0.77	42.21	55.7	0.65	0.86	0.6	350.67	43.07	0.42	358.42	52.19	0.56	1.01	0.6
OC	ALL	93	1.9	2.83	0.63	48.69	58.2	0.93	1.11	1.23	147.18	43.44	0.49	153.89	51.14	0.58	1.44	0.4
PM-2.5	WIN	19	12.55	14.91	0.74	18.83	26.2	2.36	3.29	9.36	23.3	17.76	0.19	29.66	24.65	0.26	3.87	0.54
PM-2.5	SPR	21	11.94	14.96	0.79	25.26	32.41	3.02	3.87	13.57	31.45	23.47	0.25	36.34	28.73	0.32	4.76	0.62
PM-2.5	SUM	23	16.97	12.67	0.93	-25.33	26.44	-4.3	4.49	20.79	-19.46	-23.33	-0.34	22.1	25.8	0.35	6.27	0.86
PM-2.5	FAL	25	9.31	11.07	0.77	18.91	31.52	1.76	2.94	13.79	23.15	14.94	0.19	35.89	30.19	0.32	4.11	0.6
PM-2.5	ALL	88	12.64	13.25	0.71	4.8	28.8	0.61	3.64	23.33	14.03	7.58	0.05	31.05	27.5	0.29	4.87	0.5
SO4	WIN	20	2.24	1.6	0.72	-28.48	37.04	-0.64	0.83	0.54	-24.33	-37.36	-0.4	39.61	48.4	0.52	0.97	0.52
SO4	SPR	23	2.87	2.59	0.86	-9.92	21.45	-0.28	0.62	0.56	-10.59	-15.06	-0.11	22.8	25.44	0.24	0.8	0.74
SO4	SUM	25	4.59	3.43	0.8	-25.13	34.56	-1.15	1.59	4.01	-14.46	-20.86	-0.34	28.31	33.19	0.46	2.31	0.64
SO4	FAL	25	2.06	1.65	0.9	-20.02	24.18	-0.41	0.5	0.45	-12.66	-16.9	-0.25	20.9	24.32	0.3	0.79	0.8
SO4	ALL	93	2.98	2.35	0.84	-21.09	29.91	-0.63	0.89	1.57	-15.14	-21.91	-0.27	27.39	32.16	0.38	1.4	0.7

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 191130037																		
EC	WIN	14	0.3	0.74	0.41	144.9	144.9	0.44	0.44	0.04	173.14	84.95	1.45	173.14	84.95	1.45	0.48	0.17
EC	SPR	12	0.35	0.46	0.52	33.09	47.52	0.11	0.16	0.04	73.57	33.11	0.33	81.71	42.06	0.48	0.23	0.28
EC	SUM	16	0.49	0.54	0.69	10.28	24.67	0.05	0.12	0.02	16.51	11.05	0.1	28.86	24.58	0.25	0.15	0.48
EC	FAL	15	0.42	0.65	0.79	55.96	56.42	0.23	0.23	0.03	68.28	45.04	0.56	68.63	45.41	0.56	0.29	0.63
EC	ALL	57	0.39	0.6	0.46	52.38	60.22	0.21	0.24	0.05	80.62	42.79	0.52	85.89	48.57	0.6	0.31	0.21
NACL	WIN	15	0.09	0.12	0.47	33.76	91.7	0.03	0.08	0.01	367.68	66.32	0.34	379.22	83.44	0.92	0.12	0.22
NACL	SPR	15	0.05	0.09	0.88	82.62	83.9	0.04	0.04	0	92.82	55.75	0.83	94.34	57.36	0.84	0.05	0.78
NACL	SUM	16	0.08	0.03	0.16	-61.33	70.77	-0.05	0.05	0.01	-17.88	-38.91	-1.59	47.12	61.57	1.83	0.12	0.03
NACL	FAL	14	0.04	0.08	0.9	115.22	115.88	0.04	0.05	0	93.75	55.27	1.15	94.61	56.15	1.16	0.07	0.82
NACL	ALL	60	0.06	0.08	0.26	24.1	87	0.02	0.06	0.01	132.23	33.04	0.24	153.03	64.72	0.87	0.09	0.07
NH4	WIN	15	1.67	1.26	0.86	-24.39	36.81	-0.41	0.61	0.4	-3.06	-17.34	-0.32	43.58	42.71	0.49	0.75	0.75
NH4	SPR	15	1.68	1.81	0.75	7.81	39.8	0.13	0.67	1.17	38.47	21.07	0.08	51.92	37.34	0.4	1.09	0.56
NH4	SUM	16	0.63	0.84	0.8	34.16	44.76	0.21	0.28	0.07	84.62	42.29	0.34	90.74	49.25	0.45	0.35	0.64
NH4	FAL	15	0.85	1.27	0.89	49.85	54.64	0.42	0.46	0.23	95.39	52.81	0.5	97.31	54.8	0.55	0.64	0.79
NH4	ALL	61	1.2	1.29	0.78	7.76	42.05	0.09	0.5	0.55	54.36	24.99	0.08	71.21	46.08	0.42	0.75	0.61
NO3	WIN	15	4.13	3.04	0.86	-26.52	35.16	-1.1	1.45	1.94	-19.48	-29.74	-0.36	36.21	43.57	0.48	1.77	0.73
NO3	SPR	15	2.96	3.49	0.76	17.86	47.97	0.53	1.42	5.06	33.08	4.77	0.18	69.46	56.7	0.48	2.31	0.57
NO3	SUM	16	0.51	0.49	0.4	-4.49	49.97	-0.02	0.25	0.12	20.81	-2.71	-0.05	57.75	49.13	0.52	0.34	0.16
NO3	FAL	15	1.6	2.53	0.92	57.88	63.07	0.93	1.01	1.61	72.36	36.02	0.58	80.44	44.83	0.63	1.57	0.86
NO3	ALL	61	2.27	2.36	0.8	3.63	44.97	0.08	1.02	2.72	26.6	2.01	0.04	60.91	48.57	0.45	1.65	0.63
OC	WIN	14	1.05	3.61	0.64	243.39	243.39	2.56	2.56	0.71	292.84	111.58	2.43	292.84	111.58	2.43	2.69	0.41
OC	SPR	12	1.08	1.85	0.41	71.77	86.27	0.77	0.93	0.97	240.65	53.93	0.72	247.46	62.49	0.86	1.25	0.17
OC	SUM	16	1.83	1.92	0.74	5.05	37.12	0.09	0.68	0.7	8.1	0.06	0.05	36.94	34.49	0.37	0.84	0.54
OC	FAL	15	1.16	2.22	0.27	91.47	100.57	1.06	1.17	1.2	118.32	54.47	0.91	125.87	62.85	1.01	1.52	0.07
OC	ALL	57	1.3	2.4	0.28	84.09	101.37	1.1	1.32	1.72	156	53.11	0.84	167.52	66.78	1.01	1.71	0.08
PM-2.5	WIN	15	11.96	13.26	0.65	10.89	29.1	1.3	3.48	17.86	25.23	14.14	0.11	40.27	30.68	0.29	4.42	0.42
PM-2.5	SPR	15	10.69	13.68	0.75	28.01	41.55	2.99	4.44	25.68	52.11	28.69	0.28	61.85	39.67	0.42	5.89	0.56
PM-2.5	SUM	16	11.67	9.64	0.8	-17.39	22.58	-2.03	2.63	6.35	-14.3	-18.25	-0.21	22.14	25.45	0.27	3.24	0.64
PM-2.5	FAL	15	8.39	12.31	0.83	46.82	50.88	3.93	4.27	14.48	68.11	39.23	0.47	71.75	43.08	0.51	5.47	0.69
PM-2.5	ALL	61	10.69	12.18	0.68	13.93	34.49	1.49	3.69	21.2	32.02	15.39	0.14	48.56	34.57	0.34	4.84	0.46
SO4	WIN	15	1.8	1.05	0.74	-41.82	48.38	-0.75	0.87	0.7	-24.75	-42.15	-0.72	44.79	55.76	0.83	1.13	0.55
SO4	SPR	15	2.21	2.26	0.89	1.95	25.03	0.04	0.55	0.48	13.61	7.85	0.02	30.21	27.57	0.25	0.7	0.8
SO4	SUM	16	2.33	2.02	0.82	-13.45	24.4	-0.31	0.57	0.48	-3.02	-9.42	-0.16	28.55	29.2	0.28	0.76	0.67
SO4	FAL	15	1.64	1.54	0.85	-6.19	29.21	-0.1	0.48	0.52	15.29	7.58	-0.07	32.77	29.63	0.31	0.73	0.72
SO4	ALL	61	2	1.72	0.81	-14.07	30.84	-0.28	0.62	0.63	0.23	-9.04	-0.16	33.99	35.43	0.36	0.84	0.65

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 191530030																		
EC	WIN	15	0.27	0.92	0.18	241.06	241.06	0.65	0.65	0.09	283.78	106.24	2.41	283.78	106.24	2.41	0.71	0.03
EC	SPR	12	0.41	0.66	0.74	62.15	66.27	0.25	0.27	0.05	62.52	41.2	0.62	67.76	47.42	0.66	0.34	0.55
EC	SUM	16	0.51	0.61	0.8	18.54	23.2	0.1	0.12	0.02	26.07	19.03	0.19	29.5	22.7	0.23	0.16	0.64
EC	FAL	15	0.46	0.77	0.24	65.95	71.5	0.31	0.33	0.1	79.55	45.81	0.66	83.96	50.59	0.71	0.44	0.06
EC	ALL	58	0.42	0.74	0.19	78.31	82.33	0.33	0.34	0.11	114.09	53.1	0.78	117.26	56.63	0.82	0.46	0.04
NACL	WIN	15	0.11	0.1	0.08	-14.94	79.34	-0.02	0.09	0.02	92.1	23.51	-0.18	122.2	71.08	0.93	0.14	0.01
NACL	SPR	15	0.08	0.07	0.61	-11.54	49.41	-0.01	0.04	0	24.85	6.97	-0.13	56.68	49.97	0.56	0.05	0.37
NACL	SUM	15	0.04	0.03	0.55	-32.25	53.27	-0.01	0.02	0	-29.54	-48.66	-0.48	52.33	66.18	0.79	0.02	0.3
NACL	FAL	13	0.03	0.04	0.69	57.87	68.5	0.02	0.02	0	59.93	34.63	0.58	70.68	47.22	0.69	0.03	0.47
NACL	ALL	58	0.07	0.06	0.42	-9.63	65.02	-0.01	0.04	0.01	36.04	3.06	-0.11	75.64	59.01	0.72	0.08	0.17
NH4	WIN	15	1.52	1.07	0.75	-29.68	42.12	-0.45	0.64	0.52	3.82	-20.77	-0.42	58.47	51.84	0.6	0.85	0.56
NH4	SPR	15	1.78	1.86	0.91	4.6	25.49	0.08	0.45	0.49	12.23	7.27	0.05	25.58	22.29	0.25	0.7	0.83
NH4	SUM	15	0.66	0.66	0.93	-0.26	26.37	0	0.17	0.05	56.66	20.81	0	74.67	41.77	0.26	0.22	0.87
NH4	FAL	14	0.71	0.91	0.97	29.64	32.72	0.21	0.23	0.05	85.82	45.36	0.3	89.12	48.85	0.33	0.3	0.95
NH4	ALL	59	1.17	1.13	0.88	-3.78	32.11	-0.04	0.38	0.34	38.85	12.62	-0.04	61.5	41.06	0.33	0.59	0.78
NO3	WIN	15	3.63	2.43	0.76	-33.09	43.68	-1.2	1.58	2.61	-24.77	-38.69	-0.49	44.68	53.17	0.65	2.01	0.58
NO3	SPR	15	3.49	3.4	0.97	-2.75	20.36	-0.1	0.71	0.94	-6.7	-21.88	-0.03	39.09	45.78	0.21	0.97	0.93
NO3	SUM	15	0.45	0.22	0.52	-50.09	62.24	-0.23	0.28	0.11	-42.21	-66.92	-1	57.38	78.73	1.25	0.4	0.27
NO3	FAL	14	1.27	1.74	0.99	37.23	43.54	0.47	0.55	0.48	41.23	21.49	0.37	62.69	49.36	0.44	0.84	0.98
NO3	ALL	59	2.23	1.95	0.91	-12.36	35.31	-0.27	0.79	1.4	-8.95	-27.31	-0.14	50.76	56.89	0.4	1.22	0.82
OC	WIN	15	0.85	4.32	0.19	409.76	409.76	3.47	3.47	1.95	466.87	130.14	4.1	466.87	130.14	4.1	3.74	0.04
OC	SPR	12	1.37	2.63	0.59	92.67	101.13	1.27	1.38	1.29	189.4	63.59	0.93	196.23	72.18	1.01	1.7	0.35
OC	SUM	16	1.74	2.28	0.87	30.47	35.16	0.53	0.61	0.6	26.86	19.88	0.3	32.14	25.61	0.35	0.94	0.76
OC	FAL	15	1.37	2.53	0.13	84.94	89.82	1.16	1.23	1.73	109.57	51.18	0.85	114.64	57.43	0.9	1.76	0.02
OC	ALL	58	1.34	2.94	0.13	120.17	124.94	1.61	1.67	2.67	195.67	65.53	1.2	199.86	70.51	1.25	2.29	0.02
PM-2.5	WIN	15	10.69	13.17	0.61	23.25	33.32	2.48	3.56	15.17	42.33	26.82	0.23	48.05	32.92	0.33	4.62	0.38
PM-2.5	SPR	15	11.99	13.76	0.9	14.8	23.53	1.77	2.82	12.86	18.5	12.06	0.15	30.22	25.8	0.24	4	0.82
PM-2.5	SUM	14	11.19	8.7	0.75	-22.3	31.41	-2.5	3.52	10.25	-12.84	-23.34	-0.29	37.21	37.67	0.4	4.06	0.56
PM-2.5	FAL	14	7.99	10.33	0.87	29.3	39.88	2.34	3.19	10.63	42.7	26.69	0.29	52.12	37.18	0.4	4.01	0.76
PM-2.5	ALL	58	10.49	11.56	0.78	10.14	31.14	1.06	3.27	16.4	22.94	10.86	0.1	41.8	33.25	0.31	4.19	0.61
SO4	WIN	15	1.51	1.01	0.39	-32.81	51.99	-0.49	0.78	0.79	-19.67	-36.79	-0.49	48.28	58.85	0.77	1.02	0.15
SO4	SPR	15	2.44	2.47	0.91	1.34	22.28	0.03	0.54	0.68	0.56	-2.69	0.01	21.45	21.81	0.22	0.83	0.83
SO4	SUM	15	2.32	1.72	0.89	-25.92	29.12	-0.6	0.67	0.35	-20.22	-27.95	-0.35	31.06	36.62	0.39	0.84	0.8
SO4	FAL	14	1.43	1.21	0.79	-15.56	31.55	-0.22	0.45	0.52	7.21	-2.35	-0.18	36.21	35.2	0.37	0.76	0.63
SO4	ALL	59	1.93	1.61	0.83	-16.72	31.89	-0.32	0.62	0.65	-8.29	-17.7	-0.2	34.22	38.17	0.38	0.87	0.69

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 191630015																		
EC	WIN	27	0.38	0.79	0.38	111.21	111.21	0.42	0.42	0.05	137.3	72.4	1.11	137.3	72.4	1.11	0.47	0.15
EC	SPR	31	0.42	0.63	0.64	49.65	52.74	0.21	0.22	0.04	64.73	39.54	0.5	67.54	42.52	0.53	0.29	0.41
EC	SUM	29	0.58	0.59	0.68	1.72	26	0.01	0.15	0.03	18.19	6.69	0.02	37.75	29.35	0.26	0.17	0.46
EC	FAL	29	0.48	0.69	0.63	43.72	49.53	0.21	0.24	0.05	55.62	36.65	0.44	60.77	42.78	0.5	0.3	0.4
EC	ALL	116	0.46	0.67	0.44	44.73	54.57	0.21	0.25	0.06	67.71	38.25	0.45	74.64	46.25	0.55	0.32	0.19
NACL	WIN	29	0.12	0.21	0.44	76.49	102.54	0.09	0.12	0.02	202.65	74.89	0.76	207.72	81.56	1.03	0.16	0.2
NACL	SPR	30	0.09	0.14	0.01	61.37	125.72	0.05	0.11	0.03	351.55	70.05	0.61	361.11	85.61	1.26	0.18	0
NACL	SUM	30	0.06	0.06	0.13	2.88	50.82	0	0.03	0	79.02	16.01	0.03	104.86	53.94	0.51	0.04	0.02
NACL	FAL	30	0.04	0.11	0.41	138.65	145.81	0.06	0.06	0.01	259.08	75.21	1.39	261.63	78	1.46	0.1	0.17
NACL	ALL	119	0.08	0.13	0.3	66.76	105.17	0.05	0.08	0.01	223.25	58.91	0.67	234.05	74.72	1.05	0.13	0.09
NH4	WIN	29	2.08	1.48	0.66	-29.22	45.27	-0.61	0.94	1.22	7.34	-18.46	-0.41	62.45	53.5	0.64	1.26	0.43
NH4	SPR	30	1.47	1.52	0.78	3.57	32.48	0.05	0.48	0.47	26.38	9.22	0.04	45.71	31.61	0.32	0.69	0.6
NH4	SUM	31	0.75	0.84	0.84	11.99	37.4	0.09	0.28	0.1	81.03	32.43	0.12	95.16	49.01	0.37	0.33	0.7
NH4	FAL	30	0.7	0.96	0.73	37.85	59.99	0.26	0.42	0.33	92.32	48.17	0.38	98.28	54.95	0.6	0.64	0.53
NH4	ALL	120	1.24	1.19	0.73	-3.6	42.33	-0.04	0.52	0.63	52.38	18.26	-0.04	75.68	47.23	0.44	0.8	0.54
NO3	WIN	29	4.7	3.46	0.8	-26.41	35.74	-1.24	1.68	3.39	-11.97	-24.08	-0.36	38.26	41.22	0.49	2.22	0.64
NO3	SPR	30	2.59	2.87	0.74	10.96	44.47	0.28	1.15	2.86	35.46	-0.43	0.11	73.53	52.18	0.44	1.71	0.55
NO3	SUM	31	0.53	0.31	0.4	-42.41	59.2	-0.23	0.32	0.15	-33.42	-55.65	-0.74	54.25	69.93	1.03	0.44	0.16
NO3	FAL	30	1.31	1.64	0.75	25.03	56.94	0.33	0.75	1.5	47.84	6.87	0.25	81.69	51.83	0.57	1.27	0.56
NO3	ALL	120	2.25	2.04	0.8	-9.13	42.79	-0.21	0.96	2.34	9.3	-18.59	-0.1	62.07	54.03	0.47	1.54	0.64
OC	WIN	27	1.24	3.35	0.56	171.11	171.11	2.11	2.11	0.81	196.04	91.01	1.71	196.04	91.01	1.71	2.3	0.32
OC	SPR	31	1.37	2.12	0.58	55.46	68.08	0.76	0.93	0.83	95.71	44.44	0.55	104.79	54.88	0.68	1.18	0.33
OC	SUM	29	2.01	2.06	0.57	2.12	34.35	0.04	0.69	1.08	11.76	2.56	0.02	35.36	31.11	0.34	1.04	0.33
OC	FAL	29	1.47	2.02	0.46	37.27	53.15	0.55	0.78	0.91	51.39	29.72	0.37	62.81	43.06	0.53	1.1	0.21
OC	ALL	116	1.52	2.37	0.36	55.25	72.76	0.84	1.11	1.47	87	41.13	0.55	98.18	54.39	0.73	1.48	0.13
PM-2.5	WIN	29	14.14	13.82	0.7	-2.26	25	-0.32	3.53	17.75	6.96	1.1	-0.02	29.09	26.22	0.26	4.23	0.49
PM-2.5	SPR	30	10.83	12.16	0.76	12.33	25.49	1.34	2.76	13.68	20.75	11.25	0.12	32.46	24.78	0.25	3.93	0.57
PM-2.5	SUM	30	12.02	9.5	0.81	-20.97	25.92	-2.52	3.11	10.78	-13.88	-18.35	-0.27	24.25	27.36	0.33	4.14	0.66
PM-2.5	FAL	30	8.73	9.95	0.78	13.98	27.95	1.22	2.44	10.29	18.88	13.09	0.14	28.83	24.24	0.28	3.43	0.61
PM-2.5	ALL	119	11.41	11.34	0.73	-0.6	25.93	-0.07	2.96	15.53	8.19	1.78	-0.01	28.65	25.65	0.26	3.94	0.53
SO4	WIN	29	2.04	1.26	0.47	-38.21	52.38	-0.78	1.07	1.44	-29.84	-45.87	-0.62	45.47	58.03	0.85	1.43	0.22
SO4	SPR	30	2.17	1.94	0.71	-10.44	28.47	-0.23	0.62	0.82	2.43	-5.17	-0.12	28.77	27.6	0.32	0.93	0.5
SO4	SUM	31	2.61	2.22	0.87	-15.03	26.98	-0.39	0.71	0.79	-3.16	-8.16	-0.18	26	27.2	0.32	0.97	0.75
SO4	FAL	30	1.55	1.41	0.82	-8.66	29.05	-0.13	0.45	0.39	6.28	0.56	-0.09	29.03	27.76	0.32	0.64	0.68
SO4	ALL	120	2.1	1.72	0.73	-18.13	33.73	-0.38	0.71	0.92	-5.85	-14.34	-0.22	32.15	34.89	0.41	1.03	0.53

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 201730010																		
EC	WIN	15	0.43	0.96	0.59	122.78	122.78	0.53	0.53	0.09	169.66	78.8	1.23	169.66	78.8	1.23	0.61	0.35
EC	SPR	15	0.35	0.63	0.69	80.52	90.19	0.28	0.32	0.09	87.96	50.6	0.81	95.63	59.14	0.9	0.42	0.47
EC	SUM	16	0.36	0.5	0.4	38.94	55.7	0.14	0.2	0.03	62.75	37.97	0.39	72.63	49.38	0.56	0.23	0.16
EC	FAL	15	0.41	0.74	0.91	79.68	79.68	0.33	0.33	0.02	88.76	58.16	0.8	88.76	58.16	0.8	0.35	0.83
EC	ALL	61	0.39	0.7	0.62	81.83	88.04	0.32	0.34	0.08	101.63	56.08	0.82	106.11	61.17	0.88	0.42	0.39
NACL	WIN	15	0.11	0.08	0.11	-27.2	65.44	-0.03	0.07	0.01	27.58	-0.12	-0.37	70.5	62.46	0.9	0.1	0.01
NACL	SPR	15	0.13	0.07	0.65	-48.67	62.05	-0.06	0.08	0.01	-10.1	-33.23	-0.95	56.66	64.57	1.21	0.13	0.43
NACL	SUM	16	0.12	0.04	0.3	-65.73	67.29	-0.08	0.08	0.01	-59.54	-93.2	-1.92	60.52	94.15	1.96	0.12	0.09
NACL	FAL	15	0.04	0.04	0.43	-0.52	46.7	0	0.02	0	9.91	-1.13	-0.01	40.05	39.29	0.47	0.03	0.18
NACL	ALL	61	0.1	0.06	0.39	-43.5	62.97	-0.04	0.06	0.01	-8.88	-32.93	-0.77	56.99	65.59	1.11	0.1	0.15
NH4	WIN	15	1.27	0.9	0.95	-29.1	36.7	-0.37	0.47	0.49	-1.97	-10.73	-0.41	34.86	35.34	0.52	0.79	0.9
NH4	SPR	15	1.13	1.1	0.94	-2.43	24.68	-0.03	0.28	0.14	8.86	3.63	-0.02	27.83	26.24	0.25	0.38	0.89
NH4	SUM	16	0.5	0.43	0.86	-13.9	31.92	-0.07	0.16	0.03	6.35	-5.94	-0.16	42.35	38.56	0.37	0.19	0.74
NH4	FAL	15	0.48	0.56	0.8	16.27	39.06	0.08	0.19	0.05	38.91	24.27	0.16	50.7	38.38	0.39	0.23	0.65
NH4	ALL	61	0.84	0.74	0.91	-11.53	32.31	-0.1	0.27	0.2	12.93	2.66	-0.13	38.99	34.69	0.37	0.46	0.82
NO3	WIN	15	3.21	2.12	0.89	-33.89	34.24	-1.09	1.1	1.85	-30.2	-39.48	-0.51	31.22	40.47	0.52	1.74	0.8
NO3	SPR	15	1.71	1.95	0.95	13.86	37.14	0.24	0.64	1.09	-9.47	-30.11	0.14	47.94	55.6	0.37	1.07	0.9
NO3	SUM	16	0.33	0.1	0.16	-69.84	69.84	-0.23	0.23	0.03	-62.69	-96.89	-2.32	62.69	96.89	2.32	0.28	0.02
NO3	FAL	15	0.74	0.75	0.99	2.21	15.54	0.02	0.11	0.02	-4.18	-9.11	0.02	23.32	25.76	0.16	0.14	0.98
NO3	ALL	61	1.48	1.21	0.88	-17.93	34.83	-0.26	0.51	0.98	-27.22	-44.77	-0.22	41.64	55.37	0.42	1.03	0.78
OC	WIN	15	1.33	4.34	0.54	225.94	225.94	3.01	3.01	1.99	315.21	108.5	2.26	315.21	108.5	2.26	3.32	0.29
OC	SPR	15	1.54	2.27	0.55	47.38	73.82	0.73	1.14	2.16	89.84	37.32	0.47	108.94	61.34	0.74	1.64	0.3
OC	SUM	16	1.66	2.14	0.86	28.77	32.03	0.48	0.53	0.26	35.08	25.25	0.29	38.32	28.68	0.32	0.7	0.73
OC	FAL	15	1.24	2.22	0.82	79.01	79.01	0.98	0.98	0.48	81.26	52.78	0.79	81.26	52.78	0.79	1.2	0.67
OC	ALL	61	1.45	2.73	0.46	88.82	96.72	1.29	1.4	2.21	128.79	55.46	0.89	134.33	62.27	0.97	1.96	0.22
PM-2.5	WIN	15	11.22	14.21	0.6	26.64	44.44	2.99	4.99	27.26	51.18	28.61	0.27	62.52	41.72	0.44	6.02	0.36
PM-2.5	SPR	15	11.74	11.18	0.79	-4.81	38.22	-0.56	4.49	25.55	-5.4	-14.39	-0.05	38.34	41.8	0.4	5.09	0.63
PM-2.5	SUM	16	11.19	8.09	0.69	-27.7	30.42	-3.1	3.4	8.04	-23.26	-30.37	-0.38	28.18	34.54	0.42	4.2	0.48
PM-2.5	FAL	15	6.71	9.93	0.75	48.09	48.09	3.22	3.22	8.8	52.01	36.51	0.48	52.01	36.51	0.48	4.38	0.57
PM-2.5	ALL	61	10.23	10.81	0.61	5.64	39.25	0.58	4.02	24.28	17.95	4.51	0.06	44.98	38.58	0.39	4.96	0.38
SO4	WIN	15	1.31	0.89	0.82	-32.13	39.53	-0.42	0.52	0.36	-15.01	-26.41	-0.47	37.3	44.52	0.58	0.73	0.67
SO4	SPR	15	2.18	1.59	0.92	-27.22	28.51	-0.59	0.62	0.5	-20.5	-26.12	-0.37	23.28	28.76	0.39	0.92	0.84
SO4	SUM	16	2.01	1.24	0.84	-38.15	39.14	-0.77	0.78	0.19	-36.06	-49.19	-0.62	39.07	51.91	0.63	0.88	0.71
SO4	FAL	15	1.12	1.06	0.82	-5.49	23.41	-0.06	0.26	0.13	0.36	-3.24	-0.06	22.38	22.79	0.25	0.36	0.68
SO4	ALL	61	1.66	1.19	0.85	-28.02	33.16	-0.47	0.55	0.36	-18.1	-26.62	-0.39	30.65	37.24	0.46	0.76	0.73

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 202090021																		
EC	WIN	20	0.54	0.94	0.46	75.62	86.04	0.4	0.46	0.25	103.38	53.65	0.76	110.31	61.3	0.86	0.64	0.21
EC	SPR	25	0.56	0.9	0.84	59.48	61.99	0.33	0.35	0.08	59.39	39.95	0.59	62.76	43.67	0.62	0.43	0.71
EC	SUM	24	0.57	0.79	0.7	39.37	45.48	0.22	0.26	0.05	49.66	33.94	0.39	54.09	38.93	0.45	0.31	0.49
EC	FAL	23	0.54	0.76	0.58	42.56	48.63	0.23	0.26	0.13	42.63	27.85	0.43	48.08	34.04	0.49	0.42	0.34
EC	ALL	92	0.55	0.85	0.61	53.37	59.38	0.29	0.33	0.12	62.22	38.34	0.53	67.17	43.86	0.59	0.46	0.37
NACL	WIN	19	0.13	0.1	0.02	-29.25	58.62	-0.04	0.08	0.01	-6.24	-27.51	-0.41	55.28	62.27	0.83	0.11	0
NACL	SPR	24	0.12	0.07	0.51	-41.29	56.98	-0.05	0.07	0.01	-13.3	-35.65	-0.7	54.86	62.79	0.97	0.1	0.26
NACL	SUM	24	0.09	0.04	0.58	-55.89	60.06	-0.05	0.06	0	-57.35	-89.65	-1.27	60.06	91.98	1.36	0.07	0.34
NACL	FAL	20	0.07	0.04	0.52	-40.28	55	-0.03	0.04	0	69.53	-37.89	-0.67	143.06	68.1	0.92	0.06	0.27
NACL	ALL	87	0.11	0.06	0.42	-41.35	57.89	-0.04	0.06	0.01	-4.87	-49.28	-0.71	76.66	71.95	0.99	0.08	0.18
NH4	WIN	20	1.38	1.21	0.83	-12.15	30.08	-0.17	0.41	0.39	-0.59	-9.09	-0.14	31.46	32.23	0.34	0.65	0.69
NH4	SPR	25	1.18	1.11	0.9	-5.95	25.47	-0.07	0.3	0.22	14.24	-2.54	-0.06	43.24	32.74	0.27	0.47	0.82
NH4	SUM	24	0.54	0.66	0.69	20.95	42.47	0.11	0.23	0.07	165.74	31.99	0.21	181.15	50.99	0.42	0.29	0.47
NH4	FAL	21	0.37	0.55	0.67	47.44	64.68	0.18	0.24	0.06	97.8	48.84	0.47	107.5	61.18	0.65	0.3	0.45
NH4	ALL	90	0.87	0.88	0.87	1.72	33.87	0.01	0.29	0.2	70.84	17.2	0.02	92.39	44.13	0.34	0.44	0.76
NO3	WIN	20	3.37	2.64	0.87	-21.43	33.38	-0.72	1.12	1.84	-13.54	-24.97	-0.27	37.1	41.99	0.42	1.54	0.75
NO3	SPR	25	1.89	1.74	0.95	-8.34	37.39	-0.16	0.71	0.81	-26.18	-48.18	-0.09	50.27	66.21	0.41	0.91	0.9
NO3	SUM	24	0.35	0.14	0.53	-59.66	59.66	-0.21	0.21	0.01	-58.36	-86.11	-1.48	58.36	86.11	1.48	0.23	0.28
NO3	FAL	21	0.55	0.44	0.68	-20.47	44.91	-0.11	0.25	0.1	-17.54	-38.82	-0.26	52.26	60.41	0.56	0.34	0.46
NO3	ALL	90	1.49	1.21	0.91	-19.09	37.4	-0.29	0.56	0.72	-29.94	-50.95	-0.24	49.97	64.78	0.46	0.89	0.83
OC	WIN	20	2.69	4.21	0.25	56.78	93.44	1.52	2.51	10.07	147.73	48.26	0.57	166.89	75.5	0.93	3.52	0.06
OC	SPR	25	2.23	2.86	0.57	27.9	56.94	0.62	1.27	2.93	38.18	14.79	0.28	61.65	45.88	0.57	1.82	0.32
OC	SUM	24	2.36	2.56	0.75	8.83	29.9	0.21	0.7	0.82	14.96	7.65	0.09	32.22	28.47	0.3	0.93	0.57
OC	FAL	23	1.88	2.04	0.51	8.58	39.57	0.16	0.75	1.59	10.56	-1.32	0.09	37.45	32.43	0.4	1.27	0.26
OC	ALL	92	2.28	2.87	0.46	26.16	55.41	0.6	1.26	3.87	49.03	16.17	0.26	70.8	44.42	0.55	2.06	0.21
PM-2.5	WIN	20	13.54	13.06	0.73	-3.54	27.28	-0.48	3.69	23.02	-0.18	-5.25	-0.04	26.04	26.96	0.28	4.82	0.53
PM-2.5	SPR	25	12.2	11.5	0.82	-5.71	28.53	-0.7	3.48	18.43	-5.17	-10.78	-0.06	27.43	29.32	0.3	4.35	0.68
PM-2.5	SUM	25	12.2	9.29	0.75	-23.83	28.2	-2.91	3.44	9.41	-20.05	-25.88	-0.31	27.18	31.62	0.37	4.23	0.56
PM-2.5	FAL	21	7.75	7.65	0.71	-1.23	24.86	-0.1	1.93	4.87	-1.67	-5.43	-0.01	24.97	25	0.25	2.21	0.5
PM-2.5	ALL	91	11.47	10.35	0.78	-9.75	27.54	-1.12	3.16	15.09	-7.35	-12.48	-0.11	26.49	28.44	0.31	4.04	0.6
SO4	WIN	20	1.53	1.27	0.61	-16.94	46.13	-0.26	0.7	0.9	-15.7	-28.52	-0.2	40.39	46.01	0.56	0.98	0.37
SO4	SPR	25	2.33	1.78	0.77	-23.61	27.82	-0.55	0.65	0.88	-16.68	-22.82	-0.31	25.32	29.95	0.36	1.09	0.59
SO4	SUM	24	2.3	1.85	0.77	-19.23	29.31	-0.44	0.67	0.51	-7.43	-18.75	-0.24	35.75	35.45	0.36	0.84	0.59
SO4	FAL	21	1.23	1.26	0.76	2.32	29.57	0.03	0.36	0.24	16.6	8.91	0.02	33.43	29.28	0.3	0.49	0.57
SO4	ALL	90	1.88	1.56	0.73	-17.04	31.87	-0.32	0.6	0.68	-6.23	-15.6	-0.21	33.34	34.83	0.38	0.89	0.53

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 210190017																		
EC	WIN	15	0.55	0.8	0.52	45.64	57.81	0.25	0.32	0.07	79.33	44.6	0.46	85.14	51.43	0.58	0.37	0.27
EC	SPR	14	0.61	0.64	0.64	5.3	41.61	0.03	0.25	0.1	31.05	18.58	0.05	48.55	39.83	0.42	0.31	0.41
EC	SUM	16	0.68	0.72	0.82	7.06	19.21	0.05	0.13	0.02	14.08	9.84	0.07	24.19	21.24	0.19	0.16	0.68
EC	FAL	13	0.63	0.73	0.8	16.45	31.57	0.1	0.2	0.05	46.12	27.2	0.16	54.95	37.52	0.32	0.24	0.64
EC	ALL	58	0.62	0.73	0.65	17.68	36.28	0.11	0.22	0.07	42.23	24.83	0.18	52.73	37.18	0.36	0.28	0.42
NACL	WIN	15	0.06	0.11	0.59	97.01	109.41	0.06	0.06	0	158.62	70.44	0.97	162.98	75.43	1.09	0.08	0.35
NACL	SPR	13	0.05	0.08	0.49	48.53	72.02	0.03	0.04	0	83.12	30.84	0.49	100.93	56.4	0.72	0.05	0.24
NACL	SUM	16	0.04	0.03	0.62	-11.56	29.7	0	0.01	0	-1.32	-9.98	-0.13	33.14	32.17	0.34	0.02	0.38
NACL	FAL	14	0.03	0.04	0.04	22.19	51.93	0.01	0.02	0	42.35	25.28	0.22	56.18	44.25	0.52	0.02	0
NACL	ALL	58	0.05	0.07	0.57	45.12	70.39	0.02	0.03	0	69.51	28.48	0.45	87.47	51.7	0.7	0.05	0.32
NH4	WIN	15	1.06	0.93	0.76	-12.6	34.9	-0.13	0.37	0.21	14.61	1.54	-0.14	45.54	39.61	0.4	0.48	0.58
NH4	SPR	14	1.1	0.92	0.55	-16.44	37.98	-0.18	0.42	0.36	4.61	-7.83	-0.2	41.19	41.49	0.45	0.63	0.31
NH4	SUM	16	1.04	0.94	0.87	-9.97	22.75	-0.1	0.24	0.1	-2.51	-6.7	-0.11	22.56	23.9	0.25	0.33	0.75
NH4	FAL	15	0.5	0.61	0.92	21.08	33.28	0.11	0.17	0.03	167.34	47.62	0.21	174.04	55.14	0.33	0.2	0.84
NH4	ALL	60	0.93	0.85	0.77	-8.3	31.89	-0.08	0.3	0.18	45.89	8.68	-0.09	70.52	39.74	0.35	0.43	0.59
NO3	WIN	15	1.53	1.59	0.57	3.9	45.08	0.06	0.69	0.71	19.57	2.23	0.04	53.16	48.98	0.45	0.85	0.32
NO3	SPR	14	0.62	0.7	0.22	12.5	81.81	0.08	0.51	0.69	31.48	-29.59	0.12	99.61	76	0.82	0.83	0.05
NO3	SUM	16	0.28	0.15	0.68	-44.75	48.08	-0.12	0.13	0.01	-43.68	-62.59	-0.81	46.99	65.67	0.87	0.16	0.47
NO3	FAL	15	0.39	0.33	0.7	-13.96	45.37	-0.05	0.18	0.05	-16.34	-30.37	-0.16	40.38	49.79	0.53	0.23	0.5
NO3	ALL	60	0.7	0.69	0.71	-1.91	53.09	-0.01	0.37	0.36	-3.49	-30.63	-0.02	59.16	59.94	0.54	0.6	0.5
OC	WIN	15	1.97	3.07	0.66	56.13	65.23	1.1	1.28	1.09	92.01	50.5	0.56	97.25	57.02	0.65	1.52	0.43
OC	SPR	14	1.7	2.14	0.68	25.6	36.62	0.44	0.62	0.57	37.99	22.16	0.26	47.69	33.84	0.37	0.87	0.47
OC	SUM	16	2.5	2.94	0.73	17.4	27.83	0.44	0.7	0.73	21.68	13.35	0.17	31.79	25.01	0.28	0.96	0.53
OC	FAL	13	1.7	2.18	0.89	28.06	32.74	0.48	0.56	0.22	39.05	29.43	0.28	41.62	32.22	0.33	0.67	0.79
OC	ALL	58	1.99	2.61	0.72	31.03	40.14	0.62	0.8	0.75	47.7	28.69	0.31	54.76	37.03	0.4	1.07	0.52
PM-2.5	WIN	15	9.91	10.77	0.79	8.76	18.25	0.87	1.81	4.95	15.53	9.43	0.09	25.97	21.38	0.18	2.39	0.63
PM-2.5	SPR	13	10.52	9.35	0.79	-11.09	19.27	-1.17	2.03	6.8	-9.31	-12.57	-0.12	17.9	20.53	0.22	2.86	0.63
PM-2.5	SUM	16	16.19	11.57	0.9	-28.51	29.15	-4.62	4.72	6.5	-28.57	-34.83	-0.4	29.29	35.53	0.41	5.27	0.8
PM-2.5	FAL	15	10.13	8.1	0.24	-19.98	32.02	-2.02	3.24	57.29	8.94	-7.48	-0.25	36.13	30.69	0.4	7.84	0.06
PM-2.5	ALL	59	11.8	10	0.62	-15.27	25.51	-1.8	3.01	23.14	-3.58	-11.72	-0.18	27.68	27.4	0.3	5.14	0.38
SO4	WIN	15	2.36	1.42	0.77	-39.86	40.81	-0.94	0.96	1.29	-29.14	-38.84	-0.66	31.75	41.21	0.68	1.47	0.59
SO4	SPR	14	3.33	2.48	0.72	-25.39	34.96	-0.85	1.16	1.77	-21.88	-29.06	-0.34	30.23	35.82	0.47	1.58	0.52
SO4	SUM	16	4.24	3.38	0.75	-20.22	28.37	-0.86	1.2	1.72	-19.86	-26.54	-0.25	28.3	33.68	0.36	1.57	0.56
SO4	FAL	15	2.1	1.83	0.94	-13.06	21.11	-0.27	0.44	0.19	-9.57	-13.79	-0.15	24.65	26.8	0.24	0.52	0.89
SO4	ALL	60	3.02	2.29	0.79	-24.14	31.23	-0.73	0.94	1.31	-20.08	-27.02	-0.32	28.7	34.34	0.41	1.36	0.63

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 210430500																		
EC	WIN	13	0.3	0.39	0.28	33.16	47.98	0.1	0.14	0.02	46.65	30.65	0.33	54.32	40.86	0.48	0.18	0.08
EC	SPR	15	0.33	0.32	0.31	-2.95	38.63	-0.01	0.13	0.04	9.62	-3.8	-0.03	39.54	37.91	0.4	0.19	0.1
EC	SUM	16	0.42	0.28	0.77	-33.31	33.31	-0.14	0.14	0.01	-33.31	-41.82	-0.5	33.31	41.82	0.5	0.16	0.59
EC	FAL	14	0.25	0.28	0.71	11.32	32.94	0.03	0.08	0.01	29.56	16.28	0.11	41.51	31.33	0.33	0.12	0.51
EC	ALL	58	0.33	0.31	0.39	-3.62	37.61	-0.01	0.12	0.03	10.89	-1.72	-0.04	41.61	38.06	0.39	0.16	0.15
NACL	WIN	15	0.04	0.07	0.32	62.23	102.54	0.03	0.04	0.01	72.21	29.69	0.62	95.1	60.63	1.03	0.08	0.1
NACL	SPR	15	0.07	0.06	0.04	-8.08	86.98	-0.01	0.06	0.01	126.7	19.9	-0.09	166.72	84.04	0.95	0.11	0
NACL	SUM	16	0.04	0.02	0.46	-48.81	54.15	-0.02	0.02	0	-35.41	-57.06	-0.95	48.76	67.59	1.06	0.03	0.21
NACL	FAL	14	0.04	0.02	0.03	-45.82	58.79	-0.02	0.03	0	-29.03	-51.54	-0.85	54.76	71.38	1.09	0.03	0
NACL	ALL	60	0.05	0.04	0.13	-10.88	76.66	-0.01	0.04	0	33.51	-14.85	-0.12	91.23	70.85	0.86	0.07	0.02
NH4	WIN	15	0.79	0.79	0.77	-0.55	40.38	0	0.32	0.14	76.25	21.15	-0.01	100.78	50.09	0.41	0.37	0.6
NH4	SPR	14	0.81	0.84	0.48	3.56	43.55	0.03	0.35	0.17	19.71	4.68	0.04	52.44	45.94	0.44	0.41	0.23
NH4	SUM	16	0.68	0.82	0.82	21.05	37.65	0.14	0.26	0.07	78.94	31.49	0.21	92.08	46.75	0.38	0.29	0.67
NH4	FAL	15	0.28	0.5	0.84	76.8	81.27	0.22	0.23	0.02	253.68	78.39	0.77	256.58	81.65	0.81	0.26	0.71
NH4	ALL	60	0.64	0.74	0.73	15.35	45.05	0.1	0.29	0.1	108.13	34.37	0.15	126.13	56.12	0.45	0.34	0.54
NO3	WIN	15	0.91	1.21	0.6	32.39	65.24	0.3	0.6	0.42	67.68	29.67	0.32	93.65	61.47	0.65	0.71	0.35
NO3	SPR	14	0.31	0.66	0.25	114.01	187.97	0.35	0.58	0.75	308.51	23.11	1.14	354.81	96.96	1.88	0.93	0.06
NO3	SUM	16	0.11	0.06	0.1	-40.57	54.94	-0.04	0.06	0	-36.65	-60.52	-0.68	52.66	73.08	0.92	0.07	0.01
NO3	FAL	14	0.23	0.21	0.57	-7.23	57.35	-0.02	0.13	0.03	-3.61	-27.99	-0.08	60.68	62.85	0.62	0.18	0.32
NO3	ALL	59	0.39	0.53	0.6	36.65	86.43	0.14	0.34	0.33	79.62	-10.03	0.37	136.68	73.37	0.86	0.59	0.36
OC	WIN	13	0.93	1.7	0.54	81.95	88.29	0.77	0.82	0.34	99.57	58.46	0.82	103.83	63.4	0.88	0.96	0.29
OC	SPR	15	1.05	1.5	0.44	42.72	62.1	0.45	0.65	0.81	76.05	33.81	0.43	90.14	52.5	0.62	1.01	0.2
OC	SUM	16	1.91	2.24	0.88	17.21	30.23	0.33	0.58	0.36	14.41	9.38	0.17	29.18	26.24	0.3	0.69	0.77
OC	FAL	14	0.73	1.21	0.89	64.68	64.68	0.47	0.47	0.16	91.13	54.73	0.65	91.13	54.73	0.65	0.62	0.78
OC	ALL	58	1.19	1.68	0.73	41.56	52.92	0.49	0.63	0.45	67.96	37.64	0.42	76.63	48.24	0.53	0.83	0.53
PM-2.5	WIN	15	7.89	7.15	0.5	-9.29	24.31	-0.73	1.92	6.26	-4.18	-8.65	-0.1	22.43	24.71	0.27	2.61	0.25
PM-2.5	SPR	15	9.96	7.09	0.47	-28.79	36.47	-2.87	3.63	15.56	-23.09	-34.22	-0.4	34.84	43.69	0.51	4.88	0.22
PM-2.5	SUM	16	16.84	8.42	0.48	-49.97	49.97	-8.41	8.41	138.71	-43.54	-58.41	-1	43.54	58.41	1	14.47	0.23
PM-2.5	FAL	15	6.13	5.5	0.78	-10.18	23.06	-0.62	1.41	4.15	-8.81	-12.95	-0.11	20.3	22.88	0.26	2.13	0.6
PM-2.5	ALL	61	10.31	7.07	0.51	-31.48	38.01	-3.25	3.92	53.05	-20.29	-29.05	-0.46	30.49	37.76	0.55	7.97	0.26
SO4	WIN	15	2.37	1.33	0.76	-44.07	45.88	-1.05	1.09	1.49	-32.99	-44.98	-0.79	38.98	49.86	0.82	1.61	0.58
SO4	SPR	14	3.06	2.39	0.95	-21.84	24.06	-0.67	0.74	0.27	-24.55	-29.89	-0.28	25.87	31.16	0.31	0.84	0.9
SO4	SUM	16	3.57	3.06	0.8	-14.37	24.79	-0.51	0.89	1.08	-12.98	-19.13	-0.17	26.23	30.94	0.29	1.16	0.65
SO4	FAL	15	1.73	1.74	0.85	0.43	26.63	0.01	0.46	0.47	-0.37	-7.39	0	27.65	28.78	0.27	0.69	0.72
SO4	ALL	60	2.69	2.14	0.8	-20.51	29.54	-0.55	0.8	0.98	-17.53	-25.17	-0.26	29.69	35.18	0.37	1.13	0.65

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 210670012																		
EC	WIN	14	0.47	0.98	0.88	106.76	106.76	0.51	0.51	0.03	111.34	70.09	1.07	111.34	70.09	1.07	0.53	0.77
EC	SPR	15	0.45	0.6	0.56	31.57	40.2	0.14	0.18	0.03	49.69	31.74	0.32	56.32	38.93	0.4	0.23	0.31
EC	SUM	15	0.71	0.77	0.65	8.72	31.54	0.06	0.22	0.06	21.67	14.78	0.09	35.43	30.95	0.32	0.26	0.42
EC	FAL	14	0.46	0.7	0.82	51.34	51.34	0.24	0.24	0.02	62.97	43.63	0.51	62.97	43.63	0.51	0.28	0.68
EC	ALL	58	0.53	0.76	0.56	44.08	53.98	0.23	0.28	0.06	60.53	39.48	0.44	65.8	45.52	0.54	0.34	0.31
NACL	WIN	15	0.07	0.13	0.76	74.29	89.2	0.06	0.07	0.01	97.72	52.3	0.74	105.83	62.09	0.89	0.09	0.57
NACL	SPR	15	0.07	0.09	0.65	31.93	61.65	0.02	0.04	0	1469.7	33.65	0.32	1494.1	68.75	0.62	0.06	0.42
NACL	SUM	15	0.05	0.03	0.03	-38.46	50.16	-0.02	0.03	0	-25.87	-41.99	-0.62	43.66	55.07	0.81	0.04	0
NACL	FAL	13	0.05	0.04	0.27	-24.98	52.32	-0.01	0.03	0	4.19	-10.01	-0.33	42.59	47.27	0.7	0.05	0.07
NACL	ALL	58	0.06	0.07	0.6	19.87	66.16	0.01	0.04	0	399.62	9.13	0.2	434.62	58.67	0.66	0.06	0.36
NH4	WIN	15	1.46	1.22	0.7	-16.32	35.8	-0.24	0.52	0.4	0.21	-8.3	-0.19	35.32	34.91	0.43	0.68	0.49
NH4	SPR	15	1.18	1.15	0.85	-2.18	24.8	-0.03	0.29	0.15	-4.65	-10.5	-0.02	25.39	27.15	0.25	0.39	0.73
NH4	SUM	15	1.46	1.21	0.87	-17.21	25.41	-0.25	0.37	0.16	-7.49	-12.8	-0.21	27.5	28.58	0.31	0.48	0.76
NH4	FAL	13	0.59	0.68	0.9	16.74	23.93	0.1	0.14	0.03	35.12	23.34	0.17	39.26	27.91	0.24	0.21	0.8
NH4	ALL	58	1.19	1.08	0.81	-9.34	28.38	-0.11	0.34	0.22	4.79	-2.94	-0.1	31.61	29.7	0.31	0.48	0.66
NO3	WIN	15	2.47	2.57	0.6	4.1	36.96	0.1	0.91	1.26	26.44	12.39	0.04	47.64	38.57	0.37	1.13	0.36
NO3	SPR	15	1	1.49	0.7	49.18	84.99	0.49	0.85	1.95	27.37	-8.49	0.49	77.43	65.27	0.85	1.48	0.48
NO3	SUM	15	0.51	0.3	0.62	-41.12	51.28	-0.21	0.26	0.07	-36.01	-54.51	-0.7	45.83	62.57	0.87	0.34	0.38
NO3	FAL	13	0.7	0.68	0.73	-2.58	40.74	-0.02	0.29	0.12	11.36	-7.1	-0.03	55.81	49.82	0.42	0.35	0.53
NO3	ALL	58	1.19	1.28	0.72	7.95	49.49	0.09	0.59	0.94	7.15	-14.68	0.08	56.71	54.2	0.49	0.98	0.53
OC	WIN	14	1.25	4.64	0.8	271.21	271.21	3.39	3.39	2.66	279.18	112.02	2.71	279.18	112.02	2.71	3.76	0.64
OC	SPR	15	1.25	2	0.55	60.1	74.23	0.75	0.93	0.7	110.15	52.45	0.6	120.91	65.44	0.74	1.13	0.3
OC	SUM	15	2.53	2.68	0.84	5.88	20.44	0.15	0.52	0.37	10.23	7.29	0.06	21.4	19.51	0.2	0.62	0.7
OC	FAL	14	1.13	2.22	0.75	95.95	96.98	1.09	1.1	0.82	286.3	61.87	0.96	288.26	63.9	0.97	1.41	0.56
OC	ALL	58	1.55	2.87	0.37	84.5	93.76	1.31	1.46	2.6	167.63	57.42	0.85	173.77	64.44	0.94	2.08	0.14
PM-2.5	WIN	15	10.19	14.4	0.65	41.38	41.38	4.21	4.21	12.32	44.68	32.77	0.41	44.68	32.77	0.41	5.49	0.43
PM-2.5	SPR	15	9.29	9.57	0.66	3.05	30.49	0.28	2.83	10.84	7.82	-0.48	0.03	35.15	34.07	0.3	3.31	0.43
PM-2.5	SUM	15	17.11	11.43	0.83	-33.17	33.17	-5.67	5.67	14	-31.74	-39.25	-0.5	31.74	39.25	0.5	6.8	0.68
PM-2.5	FAL	13	7.91	8.24	0.81	4.21	26.13	0.33	2.07	5.4	7.53	-0.63	0.04	32.13	31.05	0.26	2.35	0.66
PM-2.5	ALL	58	11.23	11	0.58	-2.04	33.41	-0.23	3.75	23.74	7.06	-1.94	-0.02	36.06	34.4	0.34	4.88	0.33
SO4	WIN	15	2.49	1.36	0.75	-45.35	45.83	-1.13	1.14	1.1	-39.53	-53.29	-0.83	40.65	54.36	0.84	1.54	0.57
SO4	SPR	15	2.97	2.28	0.92	-23.08	28.34	-0.68	0.84	0.42	-27.46	-36.95	-0.3	32.94	41.98	0.37	0.94	0.85
SO4	SUM	15	4.9	3.26	0.91	-33.49	33.49	-1.64	1.64	1.1	-32.51	-40.54	-0.5	32.51	40.54	0.5	1.95	0.82
SO4	FAL	13	1.83	1.5	0.87	-18.26	29.02	-0.33	0.53	0.37	-19.66	-26.41	-0.22	27	32.94	0.36	0.7	0.76
SO4	ALL	58	3.09	2.12	0.87	-31.35	34.19	-0.97	1.06	1	-30.14	-39.74	-0.46	33.49	42.78	0.5	1.39	0.76

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 220330009																		
EC	WIN	25	0.81	1.87	0.47	131.14	133.73	1.06	1.08	0.46	168.2	81.66	1.31	169.19	82.72	1.34	1.26	0.22
EC	SPR	30	0.63	1.3	0.37	104.71	106.28	0.66	0.67	0.15	134.16	70.48	1.05	134.68	71.02	1.06	0.77	0.14
EC	SUM	31	0.67	1.52	0.55	126.38	126.38	0.85	0.85	0.15	171.77	80.62	1.26	171.77	80.62	1.26	0.93	0.31
EC	FAL	30	0.82	1.78	0.76	116.15	116.15	0.96	0.96	0.17	162.38	79.2	1.16	162.38	79.2	1.16	1.04	0.57
EC	ALL	116	0.73	1.6	0.58	119.67	120.64	0.87	0.88	0.24	158.84	77.85	1.2	159.19	78.22	1.21	1	0.34
NACL	WIN	27	0.17	0.4	0.68	139.59	168.46	0.23	0.28	0.16	271.7	74.14	1.4	287.04	94.75	1.68	0.46	0.46
NACL	SPR	29	0.35	0.35	0.44	-1.35	73.54	0	0.26	0.25	72.46	18.35	-0.01	108.4	68.74	0.75	0.5	0.19
NACL	SUM	28	0.16	0.12	0.1	-23.81	69.19	-0.04	0.11	0.04	20.08	-22.28	-0.31	74.43	58.59	0.91	0.2	0.01
NACL	FAL	30	0.17	0.41	0.67	134.07	145.87	0.23	0.25	0.24	246.88	51.8	1.34	253.79	61.39	1.46	0.54	0.45
NACL	ALL	114	0.21	0.32	0.47	49.16	105.56	0.11	0.23	0.19	152.68	30.39	0.49	180.63	70.47	1.06	0.45	0.22
NH4	WIN	27	0.92	1.51	0.19	64.25	90.42	0.59	0.83	0.88	133.67	39.48	0.64	155.67	67.75	0.9	1.11	0.04
NH4	SPR	28	0.95	1.17	0.43	24.02	54.74	0.23	0.52	0.49	30.67	11.65	0.24	54.99	42.46	0.55	0.74	0.18
NH4	SUM	27	0.84	0.89	0.78	6.59	46.66	0.06	0.39	0.27	142.27	30.93	0.07	162.86	57.04	0.47	0.52	0.62
NH4	FAL	28	0.61	1.24	0.44	102.82	110.79	0.63	0.68	0.32	283.08	68.71	1.03	290.56	79.84	1.11	0.84	0.19
NH4	ALL	110	0.83	1.21	0.4	45.5	73.02	0.38	0.61	0.54	147.59	37.74	0.46	166.14	61.76	0.73	0.83	0.16
NO3	WIN	27	1.23	2.32	0.16	89.09	132.02	1.09	1.62	4.21	112.76	22.13	0.89	152.67	81.47	1.32	2.33	0.03
NO3	SPR	29	0.64	1.03	0.72	61.02	94.76	0.39	0.61	0.75	66.69	13.04	0.61	103.46	68.46	0.95	0.95	0.52
NO3	SUM	27	0.39	0.45	0.52	14.73	76.7	0.06	0.3	0.27	13.19	-25.67	0.15	72.05	57.07	0.77	0.52	0.27
NO3	FAL	30	0.57	1.25	0.35	118.72	144.55	0.68	0.83	1.21	151.1	46.97	1.19	170.72	73.13	1.45	1.29	0.12
NO3	ALL	113	0.7	1.26	0.47	79.08	118.69	0.56	0.83	1.73	87.32	14.97	0.79	125.57	70.09	1.19	1.43	0.22
OC	WIN	25	2.07	4.91	0.27	137.22	146.1	2.84	3.03	5.74	184.53	78.21	1.37	187.71	82.07	1.46	3.72	0.07
OC	SPR	30	1.9	2.81	0.59	47.7	63.07	0.91	1.2	1.03	81.66	46.73	0.48	88.68	55.15	0.63	1.36	0.35
OC	SUM	31	1.88	4.3	0.67	129.47	135.4	2.43	2.54	2.84	219.67	90.75	1.29	220.92	92.14	1.35	2.95	0.44
OC	FAL	30	2.06	4.89	0.63	137.31	137.31	2.83	2.83	2.03	174.22	81.81	1.37	174.22	81.81	1.37	3.17	0.4
OC	ALL	116	1.97	4.2	0.49	112.92	120.27	2.23	2.37	3.42	164.65	74.35	1.13	167.48	77.73	1.2	2.9	0.24
PM-2.5	WIN	27	10.59	20.4	0.18	92.61	102.37	9.81	10.84	101.96	106.9	53.56	0.93	113.87	61.78	1.02	14.08	0.03
PM-2.5	SPR	29	12.37	14.36	0.16	16.12	35.44	1.99	4.38	35.11	51.28	15.58	0.16	65.87	32.8	0.35	6.25	0.03
PM-2.5	SUM	28	14.3	15.76	0.75	10.23	28.25	1.46	4.04	27.16	26.48	14.32	0.1	39.43	29.03	0.28	5.41	0.57
PM-2.5	FAL	29	11.34	19.21	0.62	69.45	69.47	7.87	7.88	28.6	209.12	53.62	0.69	209.15	53.64	0.69	9.52	0.39
PM-2.5	ALL	113	12.16	17.4	0.34	43.09	55.42	5.24	6.74	60.46	98.93	34.1	0.43	107.56	44.14	0.55	9.38	0.11
SO4	WIN	27	2.44	2.9	0.5	18.96	49.34	0.46	1.2	1.85	32.79	14.56	0.19	57.27	47	0.49	1.44	0.25
SO4	SPR	29	3.19	3.08	0.53	-3.27	35.65	-0.1	1.14	2.13	429.16	-2.73	-0.03	463.79	40	0.37	1.46	0.28
SO4	SUM	28	3.46	2.53	0.74	-26.9	35.71	-0.93	1.24	2.18	64.34	-18.64	-0.37	113.07	44.26	0.49	1.75	0.54
SO4	FAL	30	2.26	2.98	0.54	31.73	40.42	0.72	0.92	1.49	208.95	32.36	0.32	215.65	39.98	0.4	1.42	0.29
SO4	ALL	114	2.83	2.88	0.5	1.54	39.46	0.04	1.12	2.31	187.73	6.69	0.02	216.07	42.7	0.39	1.52	0.25

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 240053001																		
EC	WIN	22	1.05	1.07	0.7	2.11	42.63	0.02	0.45	0.31	1685.39	19.8	0.02	1708.2	47.53	0.43	0.56	0.49
EC	SPR	25	0.48	0.53	0.26	10.32	43.12	0.05	0.21	0.07	30.25	12.77	0.1	51.7	39.04	0.43	0.27	0.07
EC	SUM	25	0.75	0.65	0.7	-12.93	25.4	-0.1	0.19	0.07	-4.16	-10.06	-0.15	24.69	24.95	0.29	0.28	0.5
EC	FAL	23	0.96	0.85	0.91	-10.88	30.85	-0.1	0.29	0.14	13.42	3.71	-0.12	37.81	33.7	0.35	0.38	0.82
EC	ALL	95	0.8	0.76	0.78	-4.06	35.05	-0.03	0.28	0.15	400.42	6.2	-0.04	424.85	36	0.37	0.38	0.61
NACL	WIN	18	0.12	0.2	0.15	64.87	126.65	0.08	0.15	0.07	152.04	58.22	0.65	166.08	78.21	1.27	0.27	0.02
NACL	SPR	24	0.12	0.21	0.69	76.51	112.14	0.09	0.13	0.03	136.65	58.63	0.77	150.02	75.75	1.12	0.2	0.47
NACL	SUM	25	0.06	0.09	0.7	64.23	87.16	0.04	0.05	0.01	51.35	20.77	0.64	74.94	50.42	0.87	0.08	0.49
NACL	FAL	24	0.08	0.2	0.49	144.05	155.95	0.12	0.13	0.1	141.22	46.76	1.44	151.51	60.28	1.56	0.33	0.24
NACL	ALL	91	0.09	0.17	0.41	87.43	121.95	0.08	0.11	0.05	117.47	45.02	0.87	132.96	65.2	1.22	0.24	0.17
NH4	WIN	19	1.41	1.45	0.59	2.92	38.22	0.04	0.54	0.53	443.34	12.17	0.03	467.5	40.71	0.38	0.73	0.35
NH4	SPR	25	0.93	0.83	0.73	-10.2	30.22	-0.09	0.28	0.12	1.92	-7.44	-0.11	35.51	33.4	0.34	0.36	0.53
NH4	SUM	26	1.05	0.91	0.87	-12.79	32.25	-0.13	0.34	0.16	7.52	-4.39	-0.15	41.5	37.87	0.37	0.42	0.75
NH4	FAL	24	0.57	0.8	0.74	42.2	50.15	0.24	0.28	0.13	150.72	51.87	0.42	155.26	56.9	0.5	0.43	0.54
NH4	ALL	94	0.97	0.97	0.74	0.72	36.17	0.01	0.35	0.24	130.68	12.51	0.01	155.06	42.12	0.36	0.49	0.55
NO3	WIN	19	2.69	3.11	0.37	15.7	49.47	0.42	1.33	3.37	121.56	19.27	0.16	145.13	47.75	0.49	1.88	0.14
NO3	SPR	25	1.14	0.95	0.57	-16.43	51.08	-0.19	0.58	0.59	-2.91	-32.06	-0.2	63.19	61.64	0.61	0.79	0.33
NO3	SUM	26	0.56	0.14	0.66	-74.08	74.08	-0.41	0.41	0.15	-72.13	-116.45	-2.86	72.13	116.45	2.86	0.56	0.43
NO3	FAL	24	0.96	1.12	0.8	16.6	49.4	0.16	0.47	0.47	21	-3.72	0.17	60.61	54.98	0.49	0.7	0.64
NO3	ALL	94	1.25	1.21	0.7	-3.07	52.9	-0.04	0.66	1.1	9.21	-37.79	-0.03	81.57	72.29	0.55	1.05	0.49
OC	WIN	21	2.49	4.26	0.64	70.65	72.92	1.76	1.82	2.26	109.64	58.82	0.71	110.83	60.06	0.73	2.32	0.41
OC	SPR	25	1.25	1.68	0.41	33.94	50.86	0.42	0.64	0.51	56.26	30.19	0.34	66.96	42.79	0.51	0.83	0.17
OC	SUM	25	2.41	2.31	0.67	-4.02	26.7	-0.1	0.64	1	-2.67	-7.56	-0.04	24.02	25.56	0.28	1	0.45
OC	FAL	23	2.01	2.19	0.87	9.05	31.14	0.18	0.63	0.6	34.13	20.3	0.09	46.71	35.69	0.31	0.8	0.75
OC	ALL	94	2.02	2.55	0.67	25.98	44.49	0.53	0.9	1.53	47.1	24.13	0.26	60.38	40.33	0.44	1.34	0.46
PM-2.5	WIN	18	14.99	15.78	0.74	5.23	25.91	0.78	3.89	22.09	11.9	5.87	0.05	30.16	26.65	0.26	4.76	0.55
PM-2.5	SPR	25	8.5	7.81	0.52	-8.14	25.42	-0.69	2.16	7.79	-2.74	-7.99	-0.09	25.25	26.61	0.28	2.88	0.27
PM-2.5	SUM	26	13.58	9.51	0.89	-29.96	29.96	-4.07	4.07	7.24	-29.91	-36.61	-0.43	29.91	36.61	0.43	4.88	0.8
PM-2.5	FAL	24	9.72	9.33	0.91	-4.01	17.52	-0.39	1.7	4.23	-0.47	-3.4	-0.04	19.39	19.64	0.18	2.09	0.84
PM-2.5	ALL	93	11.49	10.22	0.8	-11.07	25.32	-1.27	2.91	12.78	-6.92	-12.12	-0.12	25.99	27.61	0.28	3.79	0.64
SO4	WIN	19	2.27	1.74	0.54	-23.58	41.32	-0.54	0.94	1.05	38.57	-20.9	-0.31	94.09	48.86	0.54	1.16	0.29
SO4	SPR	25	2.2	1.81	0.62	-18.06	28.63	-0.4	0.63	0.52	-11.69	-18.24	-0.22	28.89	31.23	0.35	0.82	0.38
SO4	SUM	26	3.43	2.8	0.85	-18.23	25.83	-0.62	0.88	1.22	-12.03	-19.52	-0.22	27.12	30.87	0.32	1.27	0.72
SO4	FAL	24	1.76	1.65	0.81	-6.18	24.11	-0.11	0.42	0.34	2.89	-2.86	-0.07	26.37	24.99	0.26	0.59	0.66
SO4	ALL	94	2.44	2.03	0.81	-16.98	29.1	-0.41	0.71	0.81	2.1	-15.21	-0.2	40.93	33.1	0.35	0.99	0.66

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 240330030																		
EC	WIN	19	0.54	1.12	0.83	106.69	106.69	0.58	0.58	0.14	117.74	67.61	1.07	117.74	67.61	1.07	0.68	0.7
EC	SPR	25	0.38	0.62	0.15	63	76.08	0.24	0.29	0.1	96.32	47.69	0.63	103.86	56.29	0.76	0.39	0.02
EC	SUM	24	0.6	0.74	0.59	23.79	33.15	0.14	0.2	0.06	28.33	19.13	0.24	37.07	28.99	0.33	0.28	0.35
EC	FAL	21	0.61	0.98	0.86	61.87	66.86	0.37	0.41	0.09	87.49	54.89	0.62	89.32	56.92	0.67	0.48	0.75
EC	ALL	89	0.53	0.84	0.71	60.26	67.13	0.32	0.35	0.12	80.48	45.94	0.6	85.38	51.49	0.67	0.47	0.5
NACL	WIN	17	0.07	0.12	0.29	84.71	115.42	0.06	0.08	0.02	171.06	41.62	0.85	189.84	66.27	1.15	0.14	0.09
NACL	SPR	25	0.08	0.16	0.52	87.98	125.41	0.07	0.11	0.02	243.33	62.06	0.88	255.31	78.32	1.25	0.17	0.27
NACL	SUM	24	0.09	0.06	0.23	-35.34	69.94	-0.03	0.06	0.01	-20.46	-56.94	-0.55	69	79.44	1.08	0.09	0.05
NACL	FAL	22	0.09	0.09	0.8	-2.95	47.16	0	0.04	0	-2.95	-21.77	-0.03	53.4	54.43	0.49	0.06	0.64
NACL	ALL	88	0.08	0.11	0.45	27.39	86.65	0.02	0.07	0.01	95.86	4.7	0.27	141.37	70.33	0.87	0.12	0.2
NH4	WIN	18	0.84	1.13	0.33	35.78	49.96	0.3	0.42	0.34	82.08	33.14	0.36	93.07	45.72	0.5	0.66	0.11
NH4	SPR	25	0.74	0.78	0.75	6.74	30.49	0.05	0.22	0.09	12.25	0.28	0.07	39.94	36.25	0.3	0.31	0.56
NH4	SUM	24	0.82	0.92	0.84	12.16	33.4	0.1	0.27	0.08	31.62	18.12	0.12	47.48	36.52	0.33	0.31	0.71
NH4	FAL	22	0.35	0.78	0.64	122.5	126.38	0.43	0.45	0.15	262.07	84.65	1.23	264.18	87.05	1.26	0.58	0.41
NH4	ALL	89	0.68	0.89	0.62	30.45	48.48	0.21	0.33	0.18	93.35	32.59	0.3	108.15	50.8	0.48	0.47	0.39
NO3	WIN	18	1.6	2.4	0.37	49.86	70.91	0.8	1.14	2.37	122.43	35.27	0.5	141.27	64.86	0.71	1.73	0.14
NO3	SPR	25	0.8	0.91	0.62	12.98	49.93	0.1	0.4	0.42	40.64	-6.06	0.13	83.82	57.68	0.5	0.65	0.38
NO3	SUM	24	0.32	0.15	0.59	-52.7	62.23	-0.17	0.2	0.03	-56.38	-90.81	-1.11	62.05	95.56	1.32	0.25	0.35
NO3	FAL	22	0.51	1.11	0.66	118.02	135.42	0.6	0.69	0.91	136.7	50.05	1.18	154.45	73.21	1.35	1.13	0.44
NO3	ALL	89	0.76	1.06	0.61	38.52	74.37	0.29	0.57	0.97	54.76	-6.69	0.39	107.03	73.18	0.74	1.03	0.37
OC	WIN	19	1.35	4.07	0.75	200.92	200.92	2.72	2.72	1.78	237.12	99.86	2.01	237.12	99.86	2.01	3.03	0.57
OC	SPR	25	1.05	1.88	0.05	78.3	91.72	0.82	0.96	1.35	132.48	52.79	0.78	139.99	61.54	0.92	1.42	0
OC	SUM	24	2.24	2.56	0.69	14.23	34.22	0.32	0.77	0.85	21.15	11.5	0.14	38.38	31.83	0.34	0.97	0.47
OC	FAL	21	1.28	2.57	0.71	99.72	99.72	1.28	1.28	1.58	115.86	63.76	1	115.86	63.76	1	1.8	0.51
OC	ALL	89	1.49	2.69	0.48	80.45	91.2	1.2	1.36	2.1	120.88	54.3	0.8	127.63	62.23	0.91	1.88	0.23
PM-2.5	WIN	17	8.84	13.12	0.66	48.47	55.04	4.28	4.86	16.97	53.66	35.88	0.48	58.87	42	0.55	5.94	0.44
PM-2.5	SPR	25	7.82	7.69	0.32	-1.56	33.24	-0.12	2.6	11.46	3.44	-5	-0.02	33.71	33.85	0.34	3.39	0.1
PM-2.5	SUM	24	13.46	9.49	0.84	-29.47	29.65	-3.97	3.99	6.52	-29.47	-36.65	-0.42	29.69	36.87	0.42	4.72	0.7
PM-2.5	FAL	22	7.44	9.24	0.81	24.23	35.43	1.8	2.64	9.81	31.39	21.33	0.24	39.35	30.31	0.35	3.61	0.66
PM-2.5	ALL	88	9.46	9.62	0.55	1.71	36.21	0.16	3.42	19.39	11.15	0.85	0.02	38.89	35.36	0.36	4.41	0.31
SO4	WIN	18	1.76	1.36	0.34	-22.66	34.24	-0.4	0.6	0.39	-20.1	-28.02	-0.29	31.97	37.39	0.44	0.74	0.11
SO4	SPR	25	2.08	1.66	0.5	-20.25	34.02	-0.42	0.71	0.61	-16.04	-25.14	-0.25	33.15	38.69	0.43	0.89	0.25
SO4	SUM	24	3.16	2.8	0.83	-11.34	22.06	-0.36	0.7	0.87	-8.75	-13.19	-0.13	21.48	24.19	0.25	1	0.7
SO4	FAL	22	1.5	1.42	0.82	-5.02	23.11	-0.08	0.35	0.2	1.72	-2.74	-0.05	24.8	25.28	0.24	0.45	0.68
SO4	ALL	89	2.16	1.85	0.81	-14.54	27.48	-0.31	0.59	0.55	-10.5	-16.96	-0.17	27.7	31.2	0.32	0.81	0.65

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 250130008																		
EC	WIN	22	0.9	1.35	0.63	50.11	77.17	0.45	0.69	0.53	134.79	65.01	0.5	140.3	72.92	0.77	0.85	0.4
EC	SPR	21	0.31	0.75	0.39	141.99	142.57	0.44	0.44	0.08	199.51	85.67	1.42	199.77	85.93	1.43	0.53	0.15
EC	SUM	13	0.58	0.61	0.74	4.95	34.41	0.03	0.2	0.05	28.8	16.16	0.05	46.05	36.9	0.34	0.23	0.55
EC	ALL	56	0.6	0.95	0.63	57.76	80.25	0.35	0.48	0.28	134.45	61.42	0.58	140.72	69.44	0.8	0.63	0.4
NACL	WIN	27	0.13	0.27	0.04	100.73	170.27	0.13	0.23	0.06	480.81	96.96	1.01	492.92	117.74	1.7	0.27	0
NACL	SPR	31	0.11	0.23	0.76	108.81	133.25	0.12	0.15	0.04	650.13	88.57	1.09	658.55	99.13	1.33	0.23	0.57
NACL	SUM	26	0.05	0.11	0.06	136.97	166.78	0.06	0.08	0.02	246.24	48.69	1.37	269.7	79.48	1.67	0.14	0
NACL	FAL	26	0.06	0.15	0.52	176.31	187	0.1	0.1	0.01	238.73	85.41	1.76	243.82	91.52	1.87	0.14	0.27
NACL	ALL	110	0.09	0.19	0.55	119.42	159.15	0.11	0.14	0.03	415.86	80.45	1.19	427.96	97.25	1.59	0.21	0.31
NH4	WIN	27	0.81	1.21	0.86	48.52	54.26	0.39	0.44	0.14	84.74	49.64	0.49	87.09	52.35	0.54	0.55	0.74
NH4	SPR	30	0.48	0.72	0.71	49.31	56.55	0.24	0.27	0.09	207.02	48.73	0.49	210.36	52.38	0.57	0.39	0.51
NH4	SUM	26	0.4	0.55	0.7	37.63	59.49	0.15	0.24	0.08	153.09	51.45	0.38	164.04	66.22	0.59	0.33	0.48
NH4	FAL	26	0.43	0.72	0.86	67.47	70.49	0.29	0.3	0.05	415.19	81.31	0.67	416.82	83.13	0.7	0.37	0.73
NH4	ALL	109	0.53	0.8	0.83	50.44	58.91	0.27	0.31	0.1	213.52	57.38	0.5	218.02	63.01	0.59	0.42	0.69
NO3	WIN	27	1.6	2.49	0.75	55.76	68.52	0.89	1.1	1.53	83.1	43.14	0.56	95.19	58.5	0.69	1.53	0.56
NO3	SPR	31	0.54	0.79	0.49	45.32	86.73	0.25	0.47	0.64	64.25	14.52	0.45	101.54	67.19	0.87	0.84	0.24
NO3	SUM	29	0.29	0.17	0.56	-42.11	65.14	-0.12	0.19	0.04	-32.6	-70.53	-0.73	69.12	87.05	1.13	0.24	0.31
NO3	FAL	27	0.57	0.85	0.83	48.3	68.7	0.28	0.39	0.25	43.38	13.8	0.48	74.4	56	0.69	0.57	0.69
NO3	ALL	114	0.74	1.05	0.81	42.58	71.88	0.31	0.53	0.74	39.13	-0.51	0.43	85.36	67.53	0.72	0.91	0.65
OC	WIN	22	2.28	7.21	0.81	216.54	216.54	4.93	4.93	4.95	313.28	111.6	2.17	313.28	111.6	2.17	5.41	0.66
OC	SPR	21	0.97	3.1	0.43	218.76	220.9	2.13	2.15	2.81	338.18	103.77	2.19	338.86	104.47	2.21	2.71	0.19
OC	SUM	13	1.96	2	0.75	1.63	27.29	0.03	0.54	0.56	9.89	0.16	0.02	33.65	30.6	0.27	0.75	0.57
OC	ALL	56	1.72	4.46	0.66	159.92	167.19	2.74	2.87	6.87	252.19	82.79	1.6	257.96	90.12	1.67	3.79	0.44
PM-2.5	WIN	27	10.13	17.92	0.79	76.99	78.94	7.8	7.99	24.64	94.47	58.31	0.77	95.21	59.08	0.79	9.24	0.63
PM-2.5	SPR	31	6.43	8.75	0.52	36.05	54.41	2.32	3.5	14.42	54.61	31.85	0.36	65.37	44.08	0.54	4.45	0.27
PM-2.5	SUM	30	8.68	6.79	0.8	-21.73	30.76	-1.89	2.67	7.55	-14.13	-20.87	-0.28	31.05	34.87	0.39	3.33	0.64
PM-2.5	FAL	26	8	9.86	0.81	23.35	34.16	1.87	2.73	8.88	88.37	28.6	0.23	97.08	38.54	0.34	3.52	0.66
PM-2.5	ALL	114	8.26	10.66	0.67	29.15	50.52	2.41	4.17	25.57	53.66	23.5	0.29	70.64	43.95	0.51	5.6	0.44
SO4	WIN	27	1.68	1.26	0.72	-24.94	31.83	-0.42	0.54	0.36	-20.52	-27.23	-0.33	28.28	34.11	0.42	0.73	0.51
SO4	SPR	31	1.43	1.64	0.84	14.8	25.98	0.21	0.37	0.31	23.97	13.2	0.15	34.52	24.72	0.26	0.6	0.7
SO4	SUM	30	1.6	1.48	0.66	-7.55	41.72	-0.12	0.67	0.9	69.74	0.79	-0.08	104.89	47.72	0.45	0.96	0.44
SO4	FAL	27	1.47	1.46	0.86	-0.8	25.58	-0.01	0.38	0.25	15.68	7.08	-0.01	35.32	29.88	0.26	0.5	0.74
SO4	ALL	115	1.54	1.47	0.73	-4.91	31.64	-0.08	0.49	0.51	23.52	-0.97	-0.05	51.6	34.14	0.33	0.72	0.53

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 250250042																		
EC	WIN	29	0.71	1.95	0.78	172.61	172.61	1.23	1.23	0.31	195.74	93.22	1.73	195.74	93.22	1.73	1.35	0.61
EC	SPR	31	0.47	1.2	0.4	154.37	154.37	0.73	0.73	0.18	172.04	85.6	1.54	172.04	85.6	1.54	0.84	0.16
EC	SUM	30	0.66	1.11	0.87	68.91	69.25	0.45	0.45	0.05	86.27	55.9	0.69	86.44	56.08	0.69	0.5	0.75
EC	FAL	30	0.66	1.42	0.78	115.97	115.97	0.76	0.76	0.23	131.17	72.76	1.16	131.17	72.76	1.16	0.9	0.61
EC	ALL	120	0.62	1.41	0.7	126.78	126.87	0.79	0.79	0.27	146.11	76.81	1.27	146.15	76.85	1.27	0.95	0.49
NACL	WIN	28	0.17	0.21	0.24	25.29	95.96	0.04	0.16	0.09	93.97	41.42	0.25	110.2	68.09	0.96	0.3	0.06
NACL	SPR	31	0.19	0.43	0.68	126.5	141.37	0.24	0.27	0.47	330.83	63.36	1.26	342.54	78.96	1.41	0.73	0.46
NACL	SUM	31	0.13	0.36	0.31	176.98	204.38	0.23	0.27	0.84	355.18	30.85	1.77	378.44	59.91	2.04	0.94	0.1
NACL	FAL	30	0.1	0.22	0.62	109.91	118.14	0.11	0.12	0.04	135.27	43.84	1.1	149.22	61.42	1.18	0.22	0.38
NACL	ALL	120	0.15	0.31	0.49	107.92	139.43	0.16	0.21	0.37	232.96	44.96	1.08	249.27	67.12	1.39	0.63	0.24
NH4	WIN	28	0.94	1.38	0.83	46.8	52.17	0.44	0.49	0.22	76.29	44.39	0.47	80.03	48.52	0.52	0.64	0.69
NH4	SPR	31	0.63	0.85	0.8	35.18	43.27	0.22	0.27	0.07	69.35	32.88	0.35	78.86	45.58	0.43	0.35	0.63
NH4	SUM	30	0.47	0.55	0.84	16.34	39.36	0.08	0.18	0.05	108.35	33.02	0.16	124.73	53.86	0.39	0.24	0.71
NH4	FAL	30	0.47	0.72	0.74	53.35	60.56	0.25	0.29	0.11	186.85	59.84	0.53	190.71	64	0.61	0.41	0.55
NH4	ALL	119	0.62	0.86	0.83	39.2	49	0.24	0.3	0.13	110.44	42.42	0.39	118.9	53	0.49	0.43	0.69
NO3	WIN	28	1.49	2.72	0.73	82.49	87.51	1.23	1.31	2.01	114.07	55.31	0.82	119.42	61.31	0.88	1.88	0.53
NO3	SPR	31	0.69	0.87	0.53	25.47	67.56	0.18	0.47	0.58	36.19	4.84	0.25	74.49	59.83	0.68	0.78	0.28
NO3	SUM	30	0.4	0.19	0.39	-52.83	74.53	-0.21	0.29	0.11	-38.25	-86.05	-1.12	81.27	107.4	1.58	0.39	0.15
NO3	FAL	30	0.55	0.79	0.59	43.25	83.72	0.24	0.46	0.48	40.63	5.78	0.43	79.12	61.84	0.84	0.73	0.35
NO3	ALL	119	0.77	1.11	0.77	44.54	80.47	0.34	0.62	1.04	36.87	-5.96	0.45	87.94	72.68	0.8	1.08	0.59
OC	WIN	29	1.75	7.72	0.79	341.78	341.78	5.97	5.97	8.4	362.85	123.77	3.42	362.85	123.77	3.42	6.64	0.63
OC	SPR	31	1.18	3.48	0.24	195.85	197.36	2.3	2.32	3.51	258.33	97.23	1.96	258.86	97.78	1.97	2.97	0.06
OC	SUM	30	2.11	2.63	0.85	24.31	33.65	0.51	0.71	0.47	36.54	25.93	0.24	43.38	33.71	0.34	0.86	0.73
OC	FAL	30	1.67	3.39	0.74	103.11	104.96	1.72	1.75	1.92	130.16	67.87	1.03	131.25	69.06	1.05	2.21	0.55
OC	ALL	120	1.67	4.27	0.43	155.33	159.02	2.6	2.66	7.58	196.1	78.48	1.55	198.22	80.86	1.59	3.79	0.18
PM-2.5	WIN	28	9.76	21.1	0.89	116.27	116.27	11.34	11.34	26.37	126.07	74.14	1.16	126.07	74.14	1.16	12.45	0.78
PM-2.5	SPR	31	7.2	11.79	0.58	63.72	69.5	4.59	5.01	13.44	75.77	49.58	0.64	79.15	53.22	0.69	5.87	0.34
PM-2.5	SUM	31	10.24	9.21	0.74	-10.03	25.06	-1.03	2.57	10.26	-1.59	-8	-0.11	27.35	26.52	0.28	3.36	0.55
PM-2.5	FAL	30	7.75	11.42	0.68	47.42	53.48	3.67	4.14	18.28	57.22	37.59	0.47	61.05	41.92	0.53	5.64	0.46
PM-2.5	ALL	120	8.72	13.2	0.6	51.45	64.68	4.49	5.64	35.84	62.89	37.44	0.51	72.19	48.38	0.65	7.48	0.36
SO4	WIN	28	1.72	1.81	0.75	5.06	25.38	0.09	0.44	0.32	14.33	7.94	0.05	29.75	25.82	0.25	0.58	0.57
SO4	SPR	31	1.69	2.26	0.73	33.83	40.39	0.57	0.68	0.82	41.04	25.93	0.34	47.68	33.22	0.4	1.07	0.53
SO4	SUM	31	1.73	1.97	0.81	14.22	36.3	0.25	0.63	0.63	120.83	21.12	0.14	138.68	42.07	0.36	0.83	0.65
SO4	FAL	30	1.56	1.83	0.83	16.99	30.08	0.27	0.47	0.36	36.66	21.83	0.17	45.51	31.54	0.3	0.65	0.69
SO4	ALL	120	1.68	1.97	0.77	17.79	33.3	0.3	0.56	0.57	54.33	19.46	0.18	66.46	33.36	0.33	0.81	0.59

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 260810020																		
EC	WIN	23	0.5	0.95	0.56	88.58	90.01	0.45	0.45	0.09	110.49	61.81	0.89	112.35	63.89	0.9	0.54	0.32
EC	SPR	25	0.45	0.6	0.75	33.53	41.87	0.15	0.19	0.06	32.57	21.03	0.34	41.64	31.69	0.42	0.29	0.56
EC	SUM	26	0.63	0.57	0.67	-9.05	24.53	-0.06	0.15	0.04	-1.43	-7.37	-0.1	25.69	25.89	0.27	0.22	0.44
EC	FAL	23	0.66	0.81	0.71	23.25	39.19	0.15	0.26	0.08	34.44	23.02	0.23	44.95	35.28	0.39	0.32	0.5
EC	ALL	97	0.56	0.73	0.55	29.62	46.18	0.17	0.26	0.1	42.38	23.56	0.3	54.92	38.62	0.46	0.35	0.3
NACL	WIN	23	0.13	0.12	0.23	-12.91	70.76	-0.02	0.09	0.04	62.37	25.7	-0.15	83.38	56.6	0.81	0.21	0.05
NACL	SPR	25	0.06	0.07	0.66	19.91	55.51	0.01	0.03	0	614.48	27.97	0.2	642.06	63.05	0.56	0.04	0.44
NACL	SUM	25	0.03	0.03	0.35	-21.89	57.31	-0.01	0.02	0	96.2	-10.35	-0.28	148.6	64.23	0.73	0.03	0.12
NACL	FAL	20	0.06	0.05	0.15	-10.81	45.17	-0.01	0.02	0	18.63	-2.88	-0.12	52.14	41.93	0.51	0.04	0.02
NACL	ALL	93	0.07	0.07	0.39	-6.33	61.21	0	0.04	0.01	210.47	10.47	-0.07	244.38	57.23	0.65	0.11	0.15
NH4	WIN	24	1.68	1.19	0.84	-29	39.97	-0.49	0.67	0.7	14.57	-11.81	-0.41	62.25	48.18	0.56	0.97	0.7
NH4	SPR	25	1.12	1.17	0.84	4.42	34.31	0.05	0.38	0.26	17.41	7.45	0.04	40.21	34.85	0.34	0.51	0.7
NH4	SUM	25	0.8	0.74	0.75	-6.49	47.66	-0.05	0.38	0.28	69.73	22.46	-0.07	97.31	59.35	0.51	0.53	0.57
NH4	FAL	21	0.71	0.91	0.84	28.72	35.81	0.2	0.25	0.12	75.04	30.26	0.29	81.43	37.26	0.36	0.4	0.71
NH4	ALL	95	1.08	1.01	0.79	-7.24	39.32	-0.08	0.43	0.41	43.2	11.58	-0.08	69.92	45.2	0.42	0.64	0.62
NO3	WIN	24	3.71	2.85	0.88	-23.05	33.47	-0.86	1.24	2.17	-11.02	-20.45	-0.3	37.68	40.05	0.43	1.7	0.77
NO3	SPR	25	2.07	2.04	0.91	-1.56	35.82	-0.03	0.74	0.92	-5.66	-29.09	-0.02	53.92	61.09	0.36	0.96	0.82
NO3	SUM	25	0.7	0.49	0.28	-29.96	59.16	-0.21	0.41	0.62	-29.5	-59.25	-0.43	58.08	80.79	0.84	0.82	0.08
NO3	FAL	21	1.22	1.58	0.73	29.61	58.4	0.36	0.71	0.97	16.51	-16.19	0.3	68.31	63.32	0.58	1.05	0.53
NO3	ALL	95	1.94	1.74	0.85	-10.31	40.03	-0.2	0.77	1.35	-8.39	-31.99	-0.12	54.09	61.45	0.45	1.18	0.72
OC	WIN	23	1.56	5.42	0.63	246.25	246.25	3.85	3.85	4.08	313.07	109.5	2.46	313.07	109.5	2.46	4.35	0.39
OC	SPR	25	1.28	2.87	0.7	124.4	124.4	1.59	1.59	1.84	128.98	68.12	1.24	128.98	68.12	1.24	2.09	0.49
OC	SUM	26	2.14	2.28	0.71	6.4	32.97	0.14	0.7	0.88	14.11	5.23	0.06	35.72	31.09	0.33	0.95	0.51
OC	FAL	23	1.88	2.82	0.67	49.51	57.61	0.93	1.09	1.08	80.14	47.01	0.5	83.2	50.4	0.58	1.4	0.44
OC	ALL	97	1.72	3.3	0.4	91.91	102.86	1.58	1.77	3.81	130.26	56.07	0.92	136.78	63.8	1.03	2.51	0.16
PM-2.5	WIN	23	11.47	14.75	0.86	28.56	36.54	3.28	4.19	12.98	54.06	34.67	0.29	58.88	40.31	0.37	4.87	0.74
PM-2.5	SPR	25	8.82	10.78	0.85	22.31	34.68	1.97	3.06	11.44	22.98	16.26	0.22	33.52	28.15	0.35	3.91	0.73
PM-2.5	SUM	25	11.47	8.18	0.83	-28.71	32.64	-3.29	3.74	11.03	-26.11	-34.44	-0.4	31.56	38.86	0.46	4.68	0.69
PM-2.5	FAL	21	8.77	10.11	0.85	15.24	27.82	1.34	2.44	8.58	19.4	12.31	0.15	32.12	26.61	0.28	3.22	0.71
PM-2.5	ALL	94	10.16	10.91	0.77	7.35	33.26	0.75	3.38	17.45	16.73	6.4	0.07	38.89	33.63	0.33	4.24	0.59
SO4	WIN	24	1.74	1.01	0.58	-42.02	47.71	-0.73	0.83	1.03	-29.33	-43.24	-0.72	42.52	54.27	0.82	1.25	0.34
SO4	SPR	25	1.67	1.66	0.87	-1.12	25.16	-0.02	0.42	0.32	0.36	-4.1	-0.01	23.45	24.85	0.25	0.57	0.76
SO4	SUM	25	2.27	1.7	0.83	-25.12	38.58	-0.57	0.88	1.56	1.24	-12.52	-0.34	43.94	43	0.52	1.37	0.69
SO4	FAL	21	1.58	1.3	0.8	-17.71	34.74	-0.28	0.55	0.45	-3.07	-11.41	-0.22	34.79	36.25	0.42	0.73	0.64
SO4	ALL	95	1.83	1.43	0.75	-21.98	36.8	-0.4	0.67	0.93	-7.66	-17.82	-0.28	36.17	39.58	0.47	1.05	0.56

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 260910007																		
EC	WIN	13	0.27	0.47	0.82	74.79	74.79	0.2	0.2	0.01	99.36	60.66	0.75	99.36	60.66	0.75	0.23	0.67
EC	SPR	13	0.33	0.43	0.66	29.5	41.46	0.1	0.14	0.02	47.16	30.79	0.3	55.89	40.26	0.41	0.16	0.44
EC	SUM	15	0.47	0.39	0.81	-17.05	23.06	-0.08	0.11	0.01	-11.76	-16.01	-0.21	23.45	26.16	0.28	0.13	0.66
EC	FAL	15	0.4	0.56	0.89	40.35	43.76	0.16	0.17	0.03	77.3	41.35	0.4	79.95	44.3	0.44	0.23	0.8
EC	ALL	56	0.37	0.46	0.69	24.69	41.61	0.09	0.15	0.03	51.57	28.02	0.25	63.74	42.3	0.42	0.19	0.48
NACL	WIN	15	0.04	0.1	0.51	134.99	138.87	0.06	0.06	0	274.77	79.97	1.35	278.37	84.13	1.39	0.07	0.26
NACL	SPR	14	0.04	0.09	0.36	110.11	127.93	0.05	0.05	0	146.38	60.02	1.1	160.15	80.02	1.28	0.07	0.13
NACL	SUM	16	0.05	0.03	0.47	-31.07	58.7	-0.02	0.03	0	-2.56	-20.85	-0.45	52.21	55.31	0.85	0.05	0.22
NACL	FAL	15	0.04	0.06	0.8	58.26	73.52	0.02	0.03	0	63.63	34.2	0.58	78.94	56.4	0.74	0.04	0.64
NACL	ALL	60	0.04	0.07	0.32	62.58	97.58	0.03	0.04	0	118.07	36.99	0.63	140.62	68.55	0.98	0.06	0.11
NH4	WIN	15	1.2	1.14	0.86	-5.11	39.17	-0.06	0.47	0.41	44.05	18.01	-0.05	64.39	42.42	0.41	0.64	0.75
NH4	SPR	14	1.18	1.61	0.72	36.04	48.49	0.43	0.57	0.7	80.85	38.21	0.36	87.94	46.05	0.48	0.94	0.51
NH4	SUM	15	1.03	1.12	0.61	8.99	46.41	0.09	0.48	0.44	59.2	25.19	0.09	78.37	49.81	0.46	0.67	0.38
NH4	FAL	14	0.66	1.05	0.77	59.09	63.6	0.39	0.42	0.23	101.54	44.95	0.59	105.99	50.22	0.64	0.62	0.6
NH4	ALL	58	1.02	1.23	0.68	20.1	47.48	0.21	0.48	0.49	70.73	31.25	0.2	83.73	47.09	0.47	0.73	0.47
NO3	WIN	15	2.73	2.85	0.91	4.53	29.21	0.12	0.8	0.89	24.16	11.26	0.05	42.66	33.97	0.29	0.95	0.82
NO3	SPR	14	1.99	2.66	0.72	33.78	59.71	0.67	1.19	2.47	61.1	20.59	0.34	90.29	60.24	0.6	1.71	0.51
NO3	SUM	16	0.65	0.64	0.56	-2.1	67.27	-0.01	0.44	0.42	-12.34	-39.66	-0.02	63.56	75.71	0.69	0.65	0.31
NO3	FAL	15	1.38	1.85	0.69	34.41	64.75	0.47	0.89	1.57	57.3	2.74	0.34	99.97	61.73	0.65	1.34	0.47
NO3	ALL	60	1.66	1.96	0.8	18.18	49.04	0.3	0.82	1.38	31.33	-2.27	0.18	73.67	58.17	0.49	1.21	0.64
OC	WIN	13	1.06	2.72	0.94	155.98	155.98	1.66	1.66	0.25	251.85	99.53	1.56	251.85	99.53	1.56	1.73	0.88
OC	SPR	13	0.95	1.67	0.75	76.3	76.3	0.72	0.72	0.2	109.22	59.89	0.76	109.22	59.89	0.76	0.85	0.56
OC	SUM	15	1.8	1.84	0.79	2.07	26.1	0.04	0.47	0.39	1.37	-4.15	0.02	27.45	27.09	0.26	0.62	0.63
OC	FAL	13	1.36	2	0.71	47.08	52.33	0.64	0.71	0.29	76.77	44.7	0.47	80.7	48.93	0.52	0.84	0.51
OC	ALL	54	1.31	2.05	0.62	56.22	66.7	0.74	0.88	0.63	105.78	47.99	0.56	113.98	57.68	0.67	1.08	0.39
PM-2.5	WIN	15	9.04	9.95	0.95	10.04	23.59	0.91	2.13	4.37	27.4	20.18	0.1	35.06	28.46	0.24	2.28	0.9
PM-2.5	SPR	14	8.68	10.33	0.78	18.97	27.41	1.65	2.38	13.95	24.2	13.65	0.19	33.57	23.81	0.27	4.08	0.61
PM-2.5	SUM	16	12.29	8.9	0.81	-27.58	33.12	-3.39	4.07	11.54	-26.16	-34.64	-0.38	34.18	40.71	0.46	4.8	0.65
PM-2.5	FAL	15	7.38	9.1	0.77	23.27	39.8	1.72	2.94	15.41	20.65	7.38	0.23	42.45	36.7	0.4	4.28	0.59
PM-2.5	ALL	60	9.41	9.54	0.71	1.45	30.91	0.14	2.91	15.9	10.68	0.84	0.01	36.32	32.7	0.31	3.99	0.51
SO4	WIN	15	1.54	0.86	0.71	-44.28	49.75	-0.68	0.77	0.86	-30.66	-43.53	-0.79	41.22	52.01	0.89	1.15	0.5
SO4	SPR	14	2.23	2.39	0.85	7	24.55	0.16	0.55	0.96	10.38	0.72	0.07	31.08	24.34	0.25	0.99	0.73
SO4	SUM	16	3.11	2.51	0.71	-19.55	35	-0.61	1.09	2.25	-4.16	-12.12	-0.24	31.93	34.03	0.44	1.62	0.5
SO4	FAL	15	1.53	1.46	0.84	-4.35	29.67	-0.07	0.45	0.38	0.36	-10.14	-0.05	36.84	38.39	0.31	0.62	0.71
SO4	ALL	60	2.12	1.8	0.76	-14.8	34.16	-0.31	0.72	1.26	-6.26	-16.48	-0.17	35.28	37.35	0.4	1.17	0.57

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 261130001																		
EC	WIN	15	0.16	0.27	0.83	65.71	67.54	0.11	0.11	0.01	94.39	59.67	0.66	94.96	60.25	0.68	0.13	0.69
EC	SPR	15	0.16	0.21	0.71	32.1	53.8	0.05	0.09	0.01	51.22	21.52	0.32	70.83	44.53	0.54	0.11	0.51
EC	SUM	15	0.26	0.17	0.89	-35.93	37.76	-0.09	0.1	0	-35.12	-46.51	-0.56	36.96	48.26	0.59	0.12	0.79
EC	FAL	14	0.2	0.3	0.85	48.39	52.03	0.1	0.1	0.01	208.13	36.42	0.48	215.05	44.99	0.52	0.15	0.71
EC	ALL	59	0.2	0.24	0.68	20.05	50.81	0.04	0.1	0.01	77.48	17.46	0.2	102.58	49.58	0.51	0.13	0.47
NACL	WIN	15	0.04	0.06	0.48	39.34	50.74	0.02	0.02	0	162.35	34.74	0.39	173	47.06	0.51	0.03	0.23
NACL	SPR	14	0.03	0.05	0.37	34.76	63.65	0.01	0.02	0	50.57	30.62	0.35	62.92	48.67	0.64	0.03	0.14
NACL	SUM	15	0.03	0.02	0.52	-39.12	52.41	-0.01	0.02	0	-36.19	-59.78	-0.64	50.52	71.76	0.86	0.02	0.27
NACL	FAL	13	0.04	0.04	0.28	-5.69	45.41	0	0.02	0	23.32	-3.48	-0.06	61.56	47.78	0.48	0.02	0.08
NACL	ALL	57	0.04	0.04	0.37	7.93	52.75	0	0.02	0	50.94	0.14	0.08	88.32	54.12	0.53	0.03	0.14
NH4	WIN	15	0.69	0.61	0.78	-12.26	53.59	-0.08	0.37	0.23	96.2	22.4	-0.14	129.98	67.35	0.61	0.49	0.6
NH4	SPR	14	0.63	0.76	0.82	20.31	38.43	0.13	0.24	0.16	62.8	15.21	0.2	80.33	35.32	0.38	0.43	0.68
NH4	SUM	14	0.36	0.59	0.9	62	63.04	0.22	0.23	0.04	213.97	75.37	0.62	214.71	76.13	0.63	0.3	0.82
NH4	FAL	12	0.44	0.82	0.63	85.4	87.08	0.38	0.38	0.14	162.48	61.28	0.85	164.05	62.92	0.87	0.53	0.4
NH4	ALL	55	0.54	0.69	0.67	27.68	56.68	0.15	0.3	0.17	132.14	42.54	0.28	146.34	60.47	0.57	0.44	0.45
NO3	WIN	15	1.66	1.34	0.81	-19.46	43.91	-0.32	0.73	1.31	34.17	-6.23	-0.24	76.63	51.69	0.55	1.19	0.65
NO3	SPR	14	0.76	1.22	0.78	61.91	84.23	0.47	0.64	1.26	48.51	-4.79	0.62	96.95	78.54	0.84	1.21	0.61
NO3	SUM	15	0.17	0.21	0.48	24.51	97.42	0.04	0.16	0.04	32.42	-36.77	0.25	117.26	100.89	0.97	0.21	0.23
NO3	FAL	14	0.53	0.96	0.67	81.24	99.67	0.43	0.53	0.41	102.97	17.07	0.81	144.78	81.44	1	0.78	0.45
NO3	ALL	58	0.78	0.93	0.71	18.41	65.39	0.14	0.51	0.86	53.79	-8.16	0.18	108.49	78.08	0.65	0.94	0.5
OC	WIN	14	0.57	2.05	0.67	262.79	262.79	1.49	1.49	0.39	1821.64	128.39	2.63	1821.6	128.39	2.63	1.61	0.44
OC	SPR	15	0.52	1.5	0.69	188.64	188.64	0.98	0.98	0.42	736.16	101.36	1.89	736.16	101.36	1.89	1.17	0.47
OC	SUM	15	1.7	1.5	0.84	-11.63	30.91	-0.2	0.52	0.47	-8.34	-16.03	-0.13	31.09	34.97	0.35	0.71	0.71
OC	FAL	13	0.67	1.7	0.85	152.86	152.86	1.03	1.03	0.43	210.56	94.76	1.53	210.56	94.76	1.53	1.22	0.72
OC	ALL	57	0.88	1.68	0.56	92.02	113.71	0.81	1	0.83	686.97	75.6	0.92	697.35	89.02	1.14	1.21	0.31
PM-2.5	WIN	15	5.78	6.15	0.78	6.46	36.41	0.37	2.1	6.89	31.78	18.11	0.06	48.65	38.91	0.36	2.65	0.61
PM-2.5	SPR	14	5.69	6.26	0.73	10.03	32.96	0.57	1.87	8.68	6.17	-2.56	0.1	31.97	29.65	0.33	3	0.54
PM-2.5	SUM	15	10.93	5.22	0.61	-52.22	52.22	-5.71	5.71	17.7	-52	-76.1	-1.09	52	76.1	1.09	7.09	0.37
PM-2.5	FAL	14	6.16	6.57	0.67	6.64	42.76	0.41	2.64	10.86	9.34	-2.92	0.07	44.04	41.66	0.43	3.32	0.45
PM-2.5	ALL	58	7.18	6.04	0.51	-15.91	43.29	-1.14	3.11	18.34	-1.49	-16.32	-0.19	44.37	46.96	0.51	4.43	0.26
SO4	WIN	15	1.21	0.69	0.6	-43.29	51.44	-0.53	0.62	0.49	-25.74	-40.1	-0.76	43.55	55.08	0.91	0.87	0.36
SO4	SPR	14	1.57	1.24	0.83	-20.94	26.28	-0.33	0.41	0.28	-13.35	-19.84	-0.26	23.64	28.75	0.33	0.62	0.69
SO4	SUM	15	1.63	1.43	0.97	-12.12	18.78	-0.2	0.31	0.12	-3.38	-6.75	-0.14	22.62	23.45	0.21	0.4	0.94
SO4	FAL	14	1.4	1.33	0.75	-4.43	35.24	-0.06	0.49	0.52	5.22	-3.28	-0.05	35.79	34.71	0.37	0.73	0.57
SO4	ALL	58	1.45	1.17	0.8	-19.39	31.63	-0.28	0.46	0.38	-9.5	-17.7	-0.24	31.45	35.63	0.39	0.68	0.65

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 261150005																		
EC	WIN	15	0.39	0.64	0.82	64.9	68.44	0.25	0.26	0.02	77.74	52.78	0.65	79.68	54.86	0.68	0.28	0.68
EC	SPR	13	0.34	0.54	0.9	58.44	58.44	0.2	0.2	0.01	68.04	48.28	0.58	68.04	48.28	0.58	0.22	0.82
EC	SUM	15	0.73	0.56	0.73	-22.25	30.25	-0.16	0.22	0.06	-11.97	-18.32	-0.29	27.6	30.96	0.39	0.29	0.54
EC	FAL	15	0.59	0.71	0.88	20.23	27.95	0.12	0.16	0.04	32.53	23.19	0.2	38.6	29.7	0.28	0.23	0.78
EC	ALL	58	0.52	0.61	0.69	19.11	41.15	0.1	0.21	0.06	40.67	25.73	0.19	52.98	40.7	0.41	0.26	0.47
NACL	WIN	14	0.08	0.17	0.38	107.56	110.13	0.09	0.09	0.01	140.4	65.32	1.08	142.15	67.18	1.1	0.11	0.14
NACL	SPR	15	0.05	0.14	0.38	181.49	182.41	0.09	0.09	0	224.93	88.53	1.81	226.01	89.65	1.82	0.11	0.15
NACL	SUM	16	0.05	0.05	0.72	0.32	38.45	0	0.02	0	-1.27	-12.87	0	39.55	40.56	0.38	0.02	0.52
NACL	FAL	15	0.06	0.08	0.59	28.12	58.83	0.02	0.04	0	50.72	20.26	0.28	73.17	52.95	0.59	0.05	0.34
NACL	ALL	60	0.06	0.11	0.48	79.09	96.3	0.05	0.06	0	101.33	39.01	0.79	118.51	62.14	0.96	0.08	0.23
NH4	WIN	15	1.26	1.19	0.88	-5.92	33.65	-0.07	0.43	0.36	28.04	9.16	-0.06	50.11	35.35	0.36	0.6	0.77
NH4	SPR	15	1.23	1.62	0.7	31.75	43.23	0.39	0.53	0.67	45.77	25.23	0.32	54.48	35.12	0.43	0.91	0.49
NH4	SUM	16	1.03	1.04	0.7	1.23	43.33	0.01	0.45	0.31	55.01	20.77	0.01	79.7	52.53	0.43	0.55	0.49
NH4	FAL	15	0.78	0.97	0.86	24.9	33.18	0.19	0.26	0.13	226.35	34.91	0.25	234.8	44.54	0.33	0.41	0.74
NH4	ALL	61	1.07	1.2	0.74	11.97	38.69	0.13	0.42	0.4	88.24	22.49	0.12	104.36	42.06	0.39	0.64	0.54
NO3	WIN	15	2.79	2.85	0.86	2.16	31.57	0.06	0.88	1.17	12.82	-1.04	0.02	43.04	38.44	0.32	1.08	0.74
NO3	SPR	15	1.87	2.49	0.81	32.86	51.13	0.62	0.96	1.65	57.49	17.97	0.33	84.45	53.44	0.51	1.42	0.66
NO3	SUM	16	0.65	0.49	0.58	-23.73	66.72	-0.15	0.43	0.27	-36.96	-68.04	-0.31	64.46	88	0.87	0.54	0.34
NO3	FAL	15	1.58	1.52	0.81	-3.62	42.26	-0.06	0.67	0.83	8.16	-25.97	-0.04	71.12	62.69	0.44	0.91	0.66
NO3	ALL	61	1.7	1.82	0.85	6.57	42.78	0.11	0.73	1.06	9.6	-20.07	0.07	65.74	61.09	0.43	1.03	0.72
OC	WIN	15	1.16	2.56	0.85	121.18	121.18	1.4	1.4	0.36	174.96	83.64	1.21	174.96	83.64	1.21	1.53	0.73
OC	SPR	13	0.83	1.52	0.92	84.02	84.02	0.7	0.7	0.1	92.57	61.56	0.84	92.57	61.56	0.84	0.77	0.84
OC	SUM	15	1.94	1.86	0.81	-4.19	24.92	-0.08	0.48	0.45	0.31	-5.77	-0.04	27.98	28.08	0.26	0.67	0.66
OC	FAL	14	1.28	1.78	0.87	39.23	39.77	0.5	0.51	0.17	141.95	47	0.39	142.46	47.52	0.4	0.65	0.76
OC	ALL	57	1.32	1.95	0.7	47.78	59.18	0.63	0.78	0.58	102.1	46.08	0.48	109.51	55.11	0.59	0.99	0.48
PM-2.5	WIN	15	9.75	10.43	0.89	6.93	23.62	0.68	2.3	6.45	18.62	12	0.07	31.89	27.33	0.24	2.63	0.79
PM-2.5	SPR	15	8.83	10.93	0.73	23.73	28.56	2.1	2.52	14.9	29.14	17.32	0.24	36.13	25.54	0.29	4.39	0.54
PM-2.5	SUM	16	13.37	9.48	0.78	-29.09	32.57	-3.89	4.35	13.2	-27.19	-35.73	-0.41	31.89	39.69	0.46	5.32	0.61
PM-2.5	FAL	15	9.1	9.17	0.83	0.76	28.66	0.07	2.61	11.21	7.11	-1.09	0.01	33.52	32.17	0.29	3.35	0.69
PM-2.5	ALL	61	10.31	9.99	0.73	-3.12	28.8	-0.32	2.97	16.52	6.36	-2.43	-0.03	33.33	31.32	0.3	4.08	0.53
SO4	WIN	15	1.73	0.98	0.76	-43.39	46.87	-0.75	0.81	1.13	-31.14	-41.82	-0.77	36.86	46.53	0.83	1.3	0.58
SO4	SPR	15	2.48	2.64	0.81	6.45	26.51	0.16	0.66	1.44	10.39	-1.21	0.06	33.31	25.95	0.27	1.21	0.66
SO4	SUM	16	3.37	2.73	0.68	-19	34.01	-0.64	1.15	2.21	-3.88	-12.85	-0.23	33.27	35.41	0.42	1.62	0.47
SO4	FAL	15	1.76	1.69	0.89	-3.9	26.06	-0.07	0.46	0.35	-3.22	-10.93	-0.04	31.75	33.64	0.27	0.59	0.8
SO4	ALL	61	2.35	2.02	0.74	-14.03	32.93	-0.33	0.77	1.44	-6.91	-16.64	-0.16	33.79	35.38	0.38	1.24	0.55

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 261470005																		
EC	WIN	15	0.3	0.54	0.61	79.17	80.56	0.24	0.24	0.08	86.5	49.72	0.79	87.67	50.96	0.81	0.37	0.37
EC	SPR	15	0.38	0.42	0.7	13.21	32.62	0.05	0.12	0.03	22.14	15.4	0.13	32.59	28.26	0.33	0.17	0.49
EC	SUM	15	0.56	0.49	0.57	-11.29	28.28	-0.06	0.16	0.05	-6.08	-11.92	-0.13	25.9	28.6	0.32	0.23	0.32
EC	FAL	15	0.39	0.54	0.64	37.62	47.99	0.15	0.19	0.06	409.2	35.86	0.38	415.78	43.29	0.48	0.29	0.41
EC	ALL	60	0.41	0.5	0.53	22.95	43.75	0.09	0.18	0.07	127.94	22.27	0.23	140.49	37.78	0.44	0.28	0.28
NACL	WIN	14	0.07	0.17	0.47	160.87	161.33	0.11	0.11	0.02	195.38	68.74	1.61	195.86	69.22	1.61	0.17	0.22
NACL	SPR	15	0.06	0.09	0.19	42.92	103.86	0.03	0.06	0.01	188.14	37.51	0.43	218.69	81.2	1.04	0.08	0.04
NACL	SUM	16	0.05	0.03	0.35	-25.49	51.2	-0.01	0.02	0	-10.63	-30.13	-0.34	49.96	57.61	0.69	0.03	0.12
NACL	FAL	15	0.03	0.06	0.64	107.81	115.98	0.03	0.04	0	272.76	60.72	1.08	282.92	75.56	1.16	0.04	0.41
NACL	ALL	60	0.05	0.09	0.33	71.55	110.18	0.04	0.06	0.01	157.98	32.56	0.72	184.43	70.7	1.1	0.09	0.11
NH4	WIN	14	1.07	0.98	0.84	-8.24	42.23	-0.09	0.45	0.42	43.15	19.7	-0.09	66.24	48.55	0.46	0.66	0.71
NH4	SPR	15	0.81	1.25	0.54	54.32	76.16	0.44	0.62	0.59	148.51	34.38	0.54	167.56	57.4	0.76	0.89	0.29
NH4	SUM	16	0.8	0.82	0.94	2.32	21.24	0.02	0.17	0.07	87.37	33.18	0.02	99.89	48.12	0.21	0.26	0.88
NH4	FAL	14	0.6	1.02	0.85	71.93	75.73	0.43	0.45	0.23	249.99	63.7	0.72	254.21	68.65	0.76	0.64	0.72
NH4	ALL	59	0.82	1.02	0.67	24.18	50.98	0.2	0.42	0.38	131.01	37.53	0.24	145.73	55.46	0.51	0.65	0.44
NO3	WIN	14	2.33	2.19	0.89	-6.16	31.04	-0.14	0.72	1.02	16.59	4.8	-0.07	43.6	37.4	0.33	1.02	0.8
NO3	SPR	15	1.36	2.06	0.58	51.25	79.35	0.7	1.08	2.54	74.03	20.09	0.51	105.85	69.63	0.79	1.74	0.34
NO3	SUM	16	0.58	0.47	0.41	-18.58	71.25	-0.11	0.41	0.37	-20.5	-49.85	-0.23	60.59	76.52	0.88	0.62	0.17
NO3	FAL	14	1.04	1.72	0.76	65.74	86.95	0.68	0.9	1.46	75.53	21.12	0.66	107.18	65.19	0.87	1.39	0.57
NO3	ALL	59	1.3	1.58	0.69	21.2	59.31	0.28	0.77	1.5	35.12	-2.26	0.21	79.12	62.8	0.59	1.25	0.47
OC	WIN	15	1.03	2.09	0.76	104.09	104.09	1.07	1.07	0.48	147.36	73.93	1.04	147.36	73.93	1.04	1.27	0.58
OC	SPR	15	1.16	1.47	0.74	27.05	41.28	0.31	0.48	0.25	48.49	26.81	0.27	60.19	39.71	0.41	0.59	0.55
OC	SUM	15	2.06	1.84	0.71	-10.84	28.81	-0.22	0.59	0.51	-9.58	-16.86	-0.12	29.56	33.8	0.32	0.75	0.51
OC	FAL	15	1.2	1.5	0.77	25.44	37.13	0.3	0.44	0.23	153.39	34.67	0.25	159.65	41.73	0.37	0.57	0.59
OC	ALL	60	1.36	1.73	0.62	26.88	47.49	0.37	0.65	0.58	84.91	29.64	0.27	99.19	47.29	0.47	0.84	0.39
PM-2.5	WIN	14	8.41	8.56	0.89	1.8	22.63	0.15	1.9	5.43	7.84	3.96	0.02	25.58	24.02	0.23	2.33	0.78
PM-2.5	SPR	15	8.03	9.24	0.77	15.16	31.71	1.22	2.55	13.94	13.26	4.99	0.15	32.22	28.25	0.32	3.93	0.6
PM-2.5	SUM	16	12.55	8.3	0.69	-33.9	34.35	-4.25	4.31	21.22	-31.59	-42.46	-0.51	31.91	42.78	0.52	6.27	0.47
PM-2.5	FAL	15	6.81	8.52	0.87	25.01	35.43	1.7	2.41	7.03	178.11	28.67	0.25	189.22	41.39	0.35	3.15	0.75
PM-2.5	ALL	60	9.02	8.65	0.68	-4.09	31.41	-0.37	2.83	17.96	41.25	-1.98	-0.04	69.84	34.42	0.33	4.25	0.46
SO4	WIN	14	1.46	0.9	0.78	-38.63	43.62	-0.57	0.64	0.47	-27.28	-37.64	-0.63	36.06	45.32	0.71	0.89	0.61
SO4	SPR	15	1.69	2.06	0.5	21.94	50.01	0.37	0.84	3.19	19.42	0.06	0.22	48.2	34.91	0.5	1.82	0.25
SO4	SUM	16	2.76	2.03	0.92	-26.49	28.46	-0.73	0.79	0.9	-17.29	-24.84	-0.36	29.81	34.39	0.39	1.2	0.84
SO4	FAL	14	1.69	1.55	0.86	-8.56	27.91	-0.15	0.47	0.35	-1.05	-11.51	-0.09	34.92	38.2	0.31	0.61	0.74
SO4	ALL	59	1.93	1.65	0.68	-14.15	35.88	-0.27	0.69	1.43	-6.47	-18.38	-0.16	37.18	38.02	0.42	1.23	0.46

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 261630001																		
EC	WIN	27	0.63	1.07	0.76	69.93	72.51	0.44	0.46	0.04	91.39	57.71	0.7	92.69	59.1	0.73	0.49	0.58
EC	SPR	30	0.63	0.93	0.7	47.86	51.38	0.3	0.32	0.07	58.23	40.07	0.48	60.25	42.35	0.51	0.4	0.49
EC	SUM	31	0.98	0.91	0.63	-7.2	24.19	-0.07	0.24	0.09	2.75	-2.97	-0.08	26.24	24.33	0.26	0.31	0.4
EC	FAL	29	0.8	1.12	0.77	40.35	43.65	0.32	0.35	0.09	45.31	33.13	0.4	48.23	36.29	0.44	0.44	0.59
EC	ALL	117	0.77	1.01	0.57	31.39	44.15	0.24	0.34	0.11	47.98	31.02	0.31	55.75	39.94	0.44	0.41	0.32
NACL	WIN	28	0.12	0.26	0.24	114.04	140.8	0.14	0.17	0.03	220.73	66.68	1.14	234.26	85.5	1.41	0.23	0.06
NACL	SPR	31	0.07	0.19	0.47	159.65	171.58	0.12	0.12	0.01	228.28	75.15	1.6	237.66	89.4	1.72	0.16	0.22
NACL	SUM	29	0.06	0.04	0.19	-36.17	51.06	-0.02	0.03	0	-22.41	-42.8	-0.57	49.69	60.03	0.8	0.04	0.04
NACL	FAL	29	0.08	0.13	0.37	53.34	86.83	0.04	0.07	0.01	72.88	27.23	0.53	95.48	58.15	0.87	0.12	0.14
NACL	ALL	117	0.08	0.15	0.41	84.02	119.35	0.07	0.1	0.02	125.82	32.01	0.84	155.01	73.44	1.19	0.15	0.17
NH4	WIN	28	1.69	1.35	0.79	-19.94	45.28	-0.34	0.76	0.87	48.06	9.42	-0.25	84.69	55.96	0.57	0.99	0.63
NH4	SPR	31	1.22	1.44	0.49	17.81	47.4	0.22	0.58	0.73	34.28	14.1	0.18	55.76	39.59	0.47	0.88	0.24
NH4	SUM	31	0.97	0.95	0.82	-2.73	35.05	-0.03	0.34	0.2	49.36	15.89	-0.03	74.14	46.13	0.36	0.45	0.67
NH4	FAL	29	0.85	1.07	0.76	25.63	49.52	0.22	0.42	0.31	159.66	47.3	0.26	169.66	59.24	0.5	0.6	0.58
NH4	ALL	119	1.18	1.2	0.67	2.03	44.39	0.02	0.52	0.57	72.01	21.56	0.02	95.11	49.93	0.44	0.76	0.44
NO3	WIN	28	3.82	3.21	0.86	-15.84	30.87	-0.6	1.18	2.27	8.73	-3.72	-0.19	40.33	35.29	0.37	1.62	0.73
NO3	SPR	31	2.16	2.07	0.62	-3.89	48.72	-0.08	1.05	2.1	14.68	-14.08	-0.04	64.76	54.32	0.51	1.45	0.39
NO3	SUM	31	0.76	0.27	0.32	-64.26	73.66	-0.49	0.56	0.29	-58.97	-103.2	-1.8	72.82	113.13	2.06	0.73	0.1
NO3	FAL	29	1.34	1.59	0.81	18.61	43.51	0.25	0.58	0.62	28.78	1.32	0.19	62.02	47.4	0.44	0.82	0.66
NO3	ALL	119	1.98	1.75	0.81	-11.61	42.27	-0.23	0.84	1.42	-2.47	-31.11	-0.13	60.45	63.48	0.48	1.21	0.66
OC	WIN	27	1.69	2.97	0.56	75.35	83.89	1.28	1.42	0.86	118.53	63.54	0.75	121.26	66.88	0.84	1.58	0.32
OC	SPR	30	1.25	2.15	0.67	71.69	74.17	0.9	0.93	0.44	87.59	53.89	0.72	89.04	55.42	0.74	1.11	0.46
OC	SUM	31	1.87	2.16	0.63	15.57	36.33	0.29	0.68	0.64	22.12	13.62	0.16	37.69	31.86	0.36	0.85	0.39
OC	FAL	29	1.45	2.23	0.67	54.61	60.34	0.79	0.87	1.06	85.83	49.96	0.55	88.14	52.49	0.6	1.3	0.45
OC	ALL	117	1.57	2.36	0.6	50.95	61.47	0.8	0.96	0.87	76.94	44.47	0.51	82.65	51.1	0.61	1.23	0.36
PM-2.5	WIN	28	12.97	12.53	0.83	-3.39	25.13	-0.44	3.26	15.3	13.41	4.64	-0.04	35.08	29.84	0.26	3.94	0.69
PM-2.5	SPR	31	10.52	11.29	0.62	7.3	27.04	0.77	2.85	18.47	9.86	2.3	0.07	29.01	24.78	0.27	4.37	0.39
PM-2.5	SUM	31	13.92	9.55	0.64	-31.38	33.43	-4.37	4.65	25.29	-27.12	-36.11	-0.46	30.04	38.84	0.49	6.66	0.41
PM-2.5	FAL	29	10.06	10.63	0.87	5.61	21.7	0.56	2.18	8.15	6.2	2.31	0.06	23.43	21.67	0.22	2.91	0.76
PM-2.5	ALL	119	11.87	10.97	0.67	-7.61	27.4	-0.9	3.25	21.41	0.17	-7.15	-0.08	29.35	28.87	0.3	4.71	0.45
SO4	WIN	28	1.81	1.12	0.78	-37.84	41.57	-0.68	0.75	0.6	-25.79	-36	-0.61	35.48	44.2	0.67	1.04	0.61
SO4	SPR	31	2.21	2.36	0.54	6.85	42.57	0.15	0.94	2.19	7.84	-4.57	0.07	40.71	35.75	0.43	1.49	0.3
SO4	SUM	31	3.13	2.73	0.81	-12.75	33.22	-0.4	1.04	1.71	-3.31	-13.8	-0.15	37.9	38.34	0.38	1.37	0.66
SO4	FAL	29	2.09	1.84	0.81	-12.13	30.81	-0.25	0.65	1.07	2.85	-8.34	-0.14	35.98	33.6	0.35	1.07	0.65
SO4	ALL	119	2.32	2.04	0.72	-12.36	36.53	-0.29	0.85	1.51	-4.19	-15.29	-0.14	37.59	37.89	0.42	1.26	0.52

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 261630015																		
EC	WIN	15	0.53	1.27	0.48	139.28	139.28	0.74	0.74	0.05	162.94	84.31	1.39	162.94	84.31	1.39	0.77	0.23
EC	SPR	15	0.59	1.21	0.76	106.5	106.5	0.63	0.63	0.09	118.69	70.55	1.06	118.69	70.55	1.06	0.69	0.58
EC	SUM	14	1.07	1.16	0.69	8.91	27.92	0.09	0.3	0.12	23.16	15.13	0.09	35.68	30	0.28	0.35	0.48
EC	FAL	14	0.75	1.28	0.88	71.54	71.54	0.53	0.53	0.09	79.44	53.88	0.72	79.44	53.88	0.72	0.61	0.77
EC	ALL	58	0.73	1.23	0.52	69.44	76.17	0.5	0.55	0.14	97.6	56.71	0.69	100.63	60.3	0.76	0.63	0.27
NACL	WIN	15	0.16	0.48	0.21	198.96	217.36	0.32	0.35	0.06	491.46	102.81	1.99	497.41	110.48	2.17	0.41	0.04
NACL	SPR	15	0.09	0.34	0.26	277.67	277.67	0.25	0.25	0.05	546.39	111.65	2.78	546.39	111.65	2.78	0.33	0.07
NACL	SUM	12	0.07	0.05	0.55	-30.59	43.93	-0.02	0.03	0	60.63	-10.8	-0.44	107.37	54.77	0.63	0.05	0.3
NACL	FAL	15	0.07	0.16	0.31	126.4	142.5	0.09	0.1	0.01	180.61	74.72	1.26	186.89	82.3	1.42	0.12	0.09
NACL	ALL	57	0.1	0.27	0.27	168.42	190.76	0.17	0.19	0.05	333.41	73.83	1.68	346.47	91.64	1.91	0.28	0.07
NH4	WIN	15	1.28	1.37	0.91	7.67	40.27	0.1	0.51	0.41	74.86	32.15	0.08	87.07	46.52	0.4	0.65	0.83
NH4	SPR	15	1.27	1.66	0.3	30.23	63.83	0.39	0.81	1.3	63.22	25.65	0.3	83.61	49.81	0.64	1.2	0.09
NH4	SUM	12	1.18	0.92	0.89	-22.09	34.56	-0.26	0.41	0.24	17.35	-0.02	-0.28	51.79	42.52	0.44	0.56	0.8
NH4	FAL	15	0.75	1.1	0.9	48.12	54.22	0.36	0.4	0.11	130.77	52.52	0.48	136.13	58.61	0.54	0.49	0.81
NH4	ALL	57	1.12	1.28	0.62	14.96	48.54	0.17	0.54	0.59	74.4	29.03	0.15	91.64	49.72	0.49	0.79	0.38
NO3	WIN	15	2.75	2.79	0.94	1.46	21.23	0.04	0.58	0.62	19.59	9.37	0.01	35.1	27.47	0.21	0.79	0.89
NO3	SPR	15	2.1	2.13	0.66	1.7	51.73	0.04	1.08	2.1	22.23	-7.74	0.02	69.16	59.44	0.52	1.45	0.44
NO3	SUM	12	0.8	0.26	0.19	-67.34	75.23	-0.54	0.6	0.43	-61.18	-101.94	-2.06	69.44	108.56	2.3	0.85	0.04
NO3	FAL	15	1.38	1.66	0.85	20.32	46.32	0.28	0.64	0.71	28.72	-1.54	0.2	69.27	52.6	0.46	0.89	0.72
NO3	ALL	57	1.81	1.79	0.82	-1.08	40.62	-0.02	0.73	1.08	5.68	-21.44	-0.01	60.28	59.57	0.41	1.04	0.67
OC	WIN	15	1.34	3.37	0.91	151.35	151.35	2.03	2.03	0.23	178.79	90.59	1.51	178.79	90.59	1.51	2.09	0.83
OC	SPR	15	1.22	2.42	0.58	98.07	98.07	1.2	1.2	0.58	111.6	65.22	0.98	111.6	65.22	0.98	1.42	0.34
OC	SUM	14	2.3	2.38	0.81	3.85	22.6	0.09	0.52	0.44	11.39	6.47	0.04	26.11	24.29	0.23	0.67	0.65
OC	FAL	14	1.39	2.36	0.92	70.53	70.53	0.98	0.98	0.17	117.93	62.6	0.71	117.93	62.6	0.71	1.06	0.84
OC	ALL	58	1.55	2.64	0.57	70.41	77.1	1.09	1.2	0.84	106.32	56.97	0.7	109.87	61.27	0.77	1.43	0.33
PM-2.5	WIN	14	10.08	14.12	0.93	40.08	42.39	4.04	4.27	8.39	93.51	47.6	0.4	94.59	48.73	0.42	4.97	0.87
PM-2.5	SPR	15	9.46	13.6	0.46	43.72	50.78	4.14	4.8	34.08	59.45	36.26	0.44	63.36	40.46	0.51	7.15	0.21
PM-2.5	SUM	12	17.14	10.99	0.68	-35.9	36.4	-6.15	6.24	29.09	-30.22	-39.27	-0.56	31.9	40.87	0.57	8.18	0.46
PM-2.5	FAL	15	8.53	12.04	0.89	41.14	44.74	3.51	3.82	8.41	52.1	37.36	0.41	54.26	39.71	0.45	4.55	0.8
PM-2.5	ALL	56	11.01	12.75	0.51	15.79	42.81	1.74	4.71	36.76	46.78	23.2	0.16	61.99	42.41	0.43	6.31	0.26
SO4	WIN	15	1.59	1.24	0.9	-21.68	33.19	-0.34	0.53	0.51	-4.71	-10.97	-0.28	29.2	31.03	0.42	0.79	0.81
SO4	SPR	15	2.29	2.79	0.39	21.59	51.72	0.5	1.19	4.01	26.17	7.15	0.22	49.96	36.02	0.52	2.06	0.15
SO4	SUM	12	3.61	2.61	0.91	-27.8	35.06	-1	1.27	1.38	-12.48	-21.67	-0.39	37.44	39.97	0.49	1.54	0.83
SO4	FAL	15	1.79	1.78	0.92	-0.96	18.2	-0.02	0.33	0.2	2.02	-1.09	-0.01	20.15	20.45	0.18	0.45	0.84
SO4	ALL	57	2.25	2.08	0.65	-7.81	35.65	-0.18	0.8	1.81	3.55	-5.85	-0.08	34.01	31.45	0.39	1.36	0.43

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 261630033																		
EC	WIN	15	0.61	1.27	0.28	108.14	114.21	0.66	0.7	0.11	145.9	75.03	1.08	148.49	77.9	1.14	0.73	0.08
EC	SPR	14	0.64	1.23	0.68	90.1	90.1	0.58	0.58	0.11	96.88	60.38	0.9	96.88	60.38	0.9	0.67	0.47
EC	SUM	14	0.99	1.15	0.6	16.55	29.39	0.16	0.29	0.09	30.1	19.29	0.17	40.66	31.36	0.29	0.34	0.35
EC	FAL	15	0.86	1.36	0.86	58.9	59.83	0.51	0.51	0.1	79.33	50.2	0.59	79.97	50.86	0.6	0.59	0.74
EC	ALL	58	0.77	1.25	0.6	62.13	67.6	0.48	0.52	0.13	88.9	51.62	0.62	92.28	55.44	0.68	0.6	0.36
NACL	WIN	15	0.28	0.48	0.25	70.84	114.32	0.2	0.32	0.12	621.39	63.38	0.71	641.68	88.87	1.14	0.4	0.06
NACL	SPR	14	0.08	0.32	0.05	309.83	309.83	0.24	0.24	0.05	503.89	102.29	3.1	503.89	102.29	3.1	0.33	0
NACL	SUM	16	0.09	0.05	0.91	-40.58	46.03	-0.03	0.04	0	-23.48	-34.59	-0.68	38.67	47.76	0.77	0.06	0.83
NACL	FAL	15	0.09	0.16	0.05	80.49	105.69	0.07	0.09	0.01	181.73	53.46	0.8	198.49	73.77	1.06	0.13	0
NACL	ALL	60	0.13	0.25	0.24	86.1	128	0.12	0.17	0.06	312.09	43.85	0.86	337.93	77.26	1.28	0.27	0.06
NH4	WIN	14	1.46	1.35	0.87	-7.23	49.3	-0.11	0.72	0.97	82.76	26.54	-0.08	106.65	55.93	0.53	0.99	0.76
NH4	SPR	14	1.31	1.68	0.34	28.55	68.12	0.37	0.89	1.48	62.41	26	0.29	82.76	50.18	0.68	1.27	0.12
NH4	SUM	16	1.09	0.94	0.9	-13.52	31.64	-0.15	0.35	0.15	27.86	5.24	-0.16	59.18	42.39	0.37	0.42	0.81
NH4	FAL	14	0.84	1.17	0.86	39.03	49.54	0.33	0.42	0.14	110.8	41.26	0.39	118.99	50.84	0.5	0.5	0.75
NH4	ALL	58	1.17	1.28	0.61	8.82	49.87	0.1	0.58	0.73	69.47	24.09	0.09	90.77	49.58	0.5	0.86	0.37
NO3	WIN	15	2.65	2.79	0.84	5.15	35.38	0.14	0.94	1.85	793.78	19.04	0.05	812.28	41.06	0.35	1.37	0.71
NO3	SPR	14	2.18	2.11	0.67	-3.06	55.32	-0.07	1.2	2.45	13.88	-10.44	-0.03	64.32	61.32	0.57	1.57	0.45
NO3	SUM	16	0.81	0.27	0.38	-66.88	68.72	-0.54	0.56	0.26	-64.54	-103.7	-2.02	66.01	105.08	2.08	0.75	0.14
NO3	FAL	15	1.46	1.66	0.86	14.07	42.49	0.2	0.62	0.65	18.47	-7.46	0.14	62.42	51.14	0.42	0.83	0.74
NO3	ALL	60	1.75	1.68	0.79	-4.29	46.77	-0.08	0.82	1.36	189.09	-27.19	-0.04	251.28	65.38	0.49	1.17	0.62
OC	WIN	15	1.67	3.37	0.73	102.14	102.14	1.71	1.71	0.44	130.37	72.94	1.02	130.37	72.94	1.02	1.83	0.54
OC	SPR	14	1.32	2.39	0.66	81.1	81.1	1.07	1.07	0.53	92.09	56.72	0.81	92.09	56.72	0.81	1.29	0.44
OC	SUM	14	2.45	2.34	0.59	-4.66	25.14	-0.11	0.62	0.66	-1.04	-4.79	-0.05	23.37	23.99	0.26	0.82	0.35
OC	FAL	15	1.63	2.43	0.89	48.69	49.41	0.79	0.81	0.2	102.13	49.69	0.49	102.6	50.17	0.49	0.91	0.79
OC	ALL	58	1.76	2.64	0.54	49.74	59.91	0.88	1.06	0.88	82.11	44.25	0.5	88.12	51.32	0.6	1.28	0.29
PM-2.5	WIN	15	11.67	13.67	0.75	17.09	36.26	1.99	4.23	30.06	289.55	31.34	0.17	299.93	42.92	0.36	5.83	0.57
PM-2.5	SPR	14	10.03	13.58	0.49	35.41	44.24	3.55	4.44	34.29	43.23	26.48	0.35	49.92	33.72	0.44	6.85	0.24
PM-2.5	SUM	16	15.53	11.39	0.83	-26.68	28.36	-4.14	4.4	25.09	-19.6	-24.96	-0.36	25.52	29.75	0.39	6.5	0.69
PM-2.5	FAL	15	9.87	12.04	0.85	21.99	31.97	2.17	3.16	10.94	22.62	16.21	0.22	32.81	27.84	0.32	3.96	0.73
PM-2.5	ALL	60	11.87	12.63	0.59	6.45	34.18	0.77	4.06	34.05	82.9	11.41	0.06	101.64	33.49	0.34	5.89	0.35
SO4	WIN	14	1.84	1.24	0.79	-32.77	42.05	-0.6	0.77	1.16	-12.66	-21.69	-0.49	34.97	40.26	0.63	1.24	0.62
SO4	SPR	14	2.16	2.88	0.37	33.13	57.02	0.72	1.23	4.32	40.34	16.58	0.33	57.28	35.69	0.57	2.2	0.14
SO4	SUM	16	3.36	2.74	0.88	-18.42	30.25	-0.62	1.02	1.3	-3.99	-11.2	-0.23	33.33	34.89	0.37	1.3	0.77
SO4	FAL	15	1.76	1.78	0.88	0.63	19.95	0.01	0.35	0.28	4.62	1.14	0.01	20.76	20.73	0.2	0.53	0.78
SO4	ALL	59	2.31	2.17	0.63	-5.99	36.43	-0.14	0.84	2.02	6.66	-3.96	-0.06	36.21	32.75	0.39	1.43	0.4

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 270530963																		
EC	WIN	28	0.48	2.3	0.62	375.21	375.21	1.82	1.82	0.68	447.81	129.57	3.75	447.81	129.57	3.75	1.99	0.39
EC	SPR	30	0.38	1.52	0.65	297.47	297.47	1.14	1.14	0.34	322.52	116.16	2.97	322.52	116.16	2.97	1.28	0.43
EC	SUM	22	0.54	1.27	0.55	136.69	136.69	0.73	0.73	0.12	161.71	81.73	1.37	161.71	81.73	1.37	0.81	0.3
EC	FAL	30	0.57	1.56	0.74	174.67	174.67	0.99	0.99	0.28	188.07	91.96	1.75	188.07	91.96	1.75	1.12	0.55
EC	ALL	110	0.49	1.68	0.53	242.93	242.93	1.19	1.19	0.52	285.58	106.09	2.43	285.58	106.09	2.43	1.39	0.28
NACL	WIN	28	0.21	0.43	0.61	107.19	129.33	0.22	0.27	0.04	393.2	91.92	1.07	400.03	99.7	1.29	0.31	0.38
NACL	SPR	29	0.12	0.23	0.66	87.42	104.85	0.11	0.13	0.02	276.16	77.24	0.87	280.47	82.09	1.05	0.16	0.43
NACL	SUM	22	0.04	0.04	0.52	-7.94	35.22	0	0.01	0	15.2	1.24	-0.09	43.17	37.47	0.38	0.02	0.27
NACL	FAL	29	0.05	0.14	0.02	192.18	226.21	0.09	0.11	0.02	480.65	76.63	1.92	493.64	93.57	2.26	0.17	0
NACL	ALL	108	0.11	0.22	0.63	102.82	126.5	0.11	0.14	0.03	308.25	65.4	1.03	320.37	80.65	1.26	0.2	0.39
NH4	WIN	28	1.53	1.78	0.52	16.1	55.04	0.25	0.84	1.53	70.97	29.23	0.16	91.08	54.49	0.55	1.26	0.27
NH4	SPR	29	1.11	1.34	0.9	21.37	33.38	0.24	0.37	0.17	64.13	34.31	0.21	71.26	42.29	0.33	0.48	0.81
NH4	SUM	21	0.3	0.56	0.94	85.92	89.62	0.26	0.27	0.05	127	65.89	0.86	129.86	69.25	0.9	0.34	0.88
NH4	FAL	27	0.62	1.1	0.85	77.27	77.27	0.48	0.48	0.38	142.71	66.49	0.77	142.71	66.49	0.77	0.78	0.73
NH4	ALL	105	0.93	1.24	0.75	32.76	53.96	0.31	0.5	0.57	98.73	47.55	0.33	106.64	57.16	0.54	0.82	0.56
NO3	WIN	28	3.84	3.55	0.61	-7.65	44.3	-0.29	1.7	6.03	10.7	-4.21	-0.08	46.09	40.96	0.48	2.47	0.38
NO3	SPR	29	2.24	2.14	0.92	-4.36	26.59	-0.1	0.6	0.64	5.88	-9.25	-0.05	44.9	42.65	0.28	0.8	0.86
NO3	SUM	22	0.39	0.23	0.91	-39.93	41.26	-0.15	0.16	0.01	-45.07	-65.7	-0.66	46.41	66.99	0.69	0.19	0.83
NO3	FAL	29	1.26	1.77	0.94	40.94	56.07	0.51	0.7	1.45	36.86	5.51	0.41	69.25	49.2	0.56	1.31	0.89
NO3	ALL	108	2.01	2.02	0.81	0.21	40.86	0	0.82	2.23	5.07	-15.48	0	52.05	48.93	0.41	1.49	0.65
OC	WIN	28	1.59	7.6	0.82	378.61	378.61	6.01	6.01	6.2	475.69	133.62	3.79	475.69	133.62	3.79	6.51	0.67
OC	SPR	30	1.18	4.55	0.53	284.17	284.17	3.37	3.37	3.31	328.78	115.77	2.84	328.78	115.77	2.84	3.83	0.29
OC	SUM	22	1.8	3.64	0.55	102.16	103.63	1.84	1.87	1.5	118.11	67.33	1.02	118.73	67.97	1.04	2.21	0.31
OC	FAL	30	1.6	4.71	0.53	195.13	195.13	3.11	3.11	3.02	231.6	98.64	1.95	231.6	98.64	1.95	3.57	0.28
OC	ALL	110	1.52	5.19	0.56	240.68	241.03	3.67	3.67	5.77	297.54	105.95	2.41	297.66	106.08	2.41	4.38	0.31
PM-2.5	WIN	28	12.63	24.41	0.72	93.36	95.78	11.79	12.09	46.09	123.17	67.72	0.93	124.37	69.03	0.96	13.6	0.52
PM-2.5	SPR	29	9.66	16.6	0.85	71.75	72.04	6.93	6.96	15.09	89.1	56.52	0.72	89.34	56.77	0.72	7.95	0.73
PM-2.5	SUM	22	8.85	11.38	0.42	28.56	38.49	2.53	3.41	12.89	38.35	26.1	0.29	45.47	34.14	0.38	4.39	0.18
PM-2.5	FAL	29	8.58	16.03	0.68	86.83	88.44	7.45	7.59	35.46	101.75	58.73	0.87	103	60.11	0.88	9.54	0.47
PM-2.5	ALL	108	9.98	17.41	0.73	74.52	77.55	7.43	7.74	38.03	90.99	53.82	0.75	93.16	56.24	0.78	9.66	0.54
SO4	WIN	28	1.45	1.78	0.51	22.7	49.53	0.33	0.72	1.73	33.13	15.97	0.23	50.55	37.24	0.5	1.35	0.26
SO4	SPR	29	1.53	1.95	0.73	27.86	39.15	0.43	0.6	0.53	44.33	28.85	0.28	49.53	34.85	0.39	0.84	0.54
SO4	SUM	22	1.12	1.42	0.88	26.43	34.78	0.3	0.39	0.27	43.9	26.81	0.26	51.5	35.32	0.35	0.59	0.77
SO4	FAL	29	1.11	1.56	0.67	40.62	49.95	0.45	0.55	0.65	94.07	43.05	0.41	99.61	49.25	0.5	0.92	0.45
SO4	ALL	108	1.31	1.69	0.65	29.02	43.81	0.38	0.58	0.82	54.7	28.91	0.29	63.64	39.43	0.44	0.98	0.42

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 271095008																		
EC	WIN	14	0.35	0.93	0.84	163.72	163.72	0.58	0.58	0.13	179.09	87.99	1.64	179.09	87.99	1.64	0.68	0.71
EC	SPR	15	0.37	0.53	0.35	44.65	61.13	0.16	0.22	0.08	81.06	37.82	0.45	91.48	49.84	0.61	0.32	0.12
EC	SUM	11	0.46	0.46	0.02	-1.41	27.71	-0.01	0.13	0.03	5.24	-1.25	-0.01	28.79	26.45	0.28	0.17	0
EC	FAL	15	0.44	0.68	0.44	53.23	62.7	0.24	0.28	0.07	64.76	41.4	0.53	69.11	46.6	0.63	0.36	0.2
EC	ALL	55	0.4	0.66	0.36	63.2	76.81	0.26	0.31	0.12	86.4	43.75	0.63	95.14	53.99	0.77	0.43	0.13
NACL	WIN	15	0.19	0.32	0.77	71.09	115.49	0.13	0.22	0.05	654.61	91.97	0.71	661.15	100.64	1.15	0.26	0.59
NACL	SPR	14	0.04	0.15	0.77	274.72	274.72	0.11	0.11	0.01	352.24	116.2	2.75	352.24	116.2	2.75	0.13	0.6
NACL	SUM	12	0.03	0.05	0.73	55.6	63.13	0.02	0.02	0	61.41	40.08	0.56	69.06	50.01	0.63	0.03	0.53
NACL	FAL	15	0.04	0.12	0.56	222.66	229.36	0.08	0.08	0	916.03	93.28	2.23	920.47	98.61	2.29	0.1	0.31
NACL	ALL	56	0.08	0.17	0.66	114.81	145.49	0.09	0.11	0.02	521.93	87.26	1.15	526.51	93.14	1.45	0.16	0.43
NH4	WIN	15	1.67	1.46	0.57	-12.8	43.42	-0.21	0.72	0.83	21.41	-3.67	-0.15	61.16	47.73	0.5	0.94	0.32
NH4	SPR	14	1.12	1.34	0.96	19.79	26.52	0.22	0.3	0.1	50.03	28.1	0.2	54.83	33.33	0.27	0.38	0.93
NH4	SUM	12	0.66	0.83	0.89	25.84	38.33	0.17	0.25	0.08	50.84	32.23	0.26	59.28	41.58	0.38	0.33	0.79
NH4	FAL	15	0.91	1.14	0.97	25.56	32.2	0.23	0.29	0.1	217.71	60.01	0.26	220.79	63.26	0.32	0.39	0.94
NH4	ALL	56	1.11	1.21	0.86	8.72	36.06	0.1	0.4	0.33	87.45	29.02	0.09	101.93	46.97	0.36	0.58	0.74
NO3	WIN	15	4.09	3.28	0.57	-19.81	43.03	-0.81	1.76	4.03	-9.54	-23.16	-0.25	45.03	48.1	0.54	2.16	0.33
NO3	SPR	14	2.17	2.31	0.94	6.29	28.63	0.14	0.62	0.74	3.25	-12.44	0.06	45.46	46.92	0.29	0.87	0.89
NO3	SUM	12	0.61	0.6	0.86	-1.57	37.44	-0.01	0.23	0.08	-8.12	-24.27	-0.02	43.3	49.9	0.38	0.28	0.75
NO3	FAL	15	1.69	2.32	0.98	37.21	45.53	0.63	0.77	1.29	32.49	19.06	0.37	48.3	38.76	0.46	1.3	0.96
NO3	ALL	56	2.22	2.2	0.84	-0.76	39.69	-0.02	0.88	1.91	5.22	-9.41	-0.01	45.64	45.69	0.4	1.38	0.71
OC	WIN	14	1.28	6.18	0.96	383.67	383.67	4.9	4.9	8.27	420.82	131.76	3.84	420.82	131.76	3.84	5.68	0.93
OC	SPR	15	1.03	3.06	0.4	198.51	198.51	2.04	2.04	2.94	376.97	92.61	1.99	376.97	92.61	1.99	2.66	0.16
OC	SUM	11	1.65	2.28	0.43	38.77	46.3	0.64	0.76	0.38	49.45	33.75	0.39	55.71	40.73	0.46	0.89	0.18
OC	FAL	15	1.32	3.44	0.47	159.72	159.72	2.12	2.12	1.96	181.04	86.26	1.6	181.04	86.26	1.6	2.54	0.22
OC	ALL	55	1.3	3.8	0.5	193.58	195.49	2.51	2.53	5.78	269.19	89.07	1.94	270.44	90.47	1.95	3.47	0.25
PM-2.5	WIN	15	12.83	17.35	0.61	35.25	46.29	4.52	5.94	39.82	44.09	29.46	0.35	51.73	38.41	0.46	7.76	0.37
PM-2.5	SPR	14	8.69	11.07	0.87	27.39	31.68	2.38	2.75	10.63	47.28	28.65	0.27	51.32	32.87	0.32	4.04	0.75
PM-2.5	SUM	12	10.25	8.35	0.54	-18.5	26.8	-1.9	2.75	6.51	-17.34	-22.34	-0.23	25.9	30.23	0.33	3.18	0.3
PM-2.5	FAL	15	8.91	12.28	0.87	37.92	40.39	3.38	3.6	13.96	49.11	32.42	0.38	51.59	35.15	0.4	5.04	0.77
PM-2.5	ALL	56	10.19	12.5	0.75	22.61	37.6	2.3	3.83	23.87	33.07	18.95	0.23	46.06	34.4	0.38	5.4	0.56
SO4	WIN	15	1.72	1.11	0.64	-35.59	47.39	-0.61	0.82	0.61	-29.57	-45.44	-0.55	45.87	56.82	0.74	0.99	0.41
SO4	SPR	14	1.63	1.77	0.94	8.16	26.12	0.13	0.43	0.29	23.09	15.13	0.08	34.67	27.65	0.26	0.55	0.88
SO4	SUM	12	2.1	1.82	0.88	-13.23	22.06	-0.28	0.46	0.37	-11.51	-14.55	-0.15	19.33	21.88	0.25	0.67	0.77
SO4	FAL	15	1.51	1.28	0.87	-15.48	30.49	-0.23	0.46	0.34	4.91	-4.34	-0.18	37.84	37.01	0.36	0.63	0.75
SO4	ALL	56	1.72	1.47	0.83	-14.68	31.78	-0.25	0.55	0.48	-3.3	-12.67	-0.17	35.23	36.73	0.37	0.74	0.69

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 280670002																		
EC	WIN	12	0.85	0.67	0.42	-21.19	66.69	-0.18	0.57	0.71	-5.96	-24.89	-0.27	50.96	55.55	0.85	0.86	0.18
EC	SPR	15	0.48	0.26	0.56	-45.56	47.21	-0.22	0.22	0.03	-41	-57.85	-0.84	43.85	60.43	0.87	0.27	0.32
EC	SUM	16	0.69	0.38	0.69	-45.03	46.49	-0.31	0.32	0.03	-38.96	-52.4	-0.82	43.4	56.17	0.85	0.36	0.48
EC	FAL	15	0.73	0.46	0.56	-37.03	39.76	-0.27	0.29	0.1	-27.39	-37.29	-0.59	33	42.51	0.63	0.42	0.31
EC	ALL	58	0.68	0.43	0.47	-36.71	49.96	-0.25	0.34	0.19	-29.66	-44.21	-0.58	42.39	53.61	0.79	0.5	0.22
NACL	WIN	12	0.15	0.43	0.94	193.43	199.94	0.28	0.29	0.18	685.03	100.87	1.93	691.96	108.66	2	0.51	0.88
NACL	SPR	15	0.39	0.59	0.59	52.52	120.42	0.2	0.46	0.89	179.55	52.35	0.53	200.91	85.08	1.2	0.96	0.35
NACL	SUM	16	0.1	0.22	0.4	122.96	135.86	0.12	0.13	0.01	182.76	83.53	1.23	186.8	88.35	1.36	0.14	0.16
NACL	FAL	14	0.04	0.2	0.54	373.12	373.12	0.16	0.16	0.01	916.59	128.74	3.73	916.59	128.74	3.73	0.18	0.29
NACL	ALL	57	0.17	0.35	0.65	108.89	152.72	0.18	0.26	0.28	467.9	90.08	1.09	476.11	101.69	1.53	0.56	0.43
NH4	WIN	12	0.73	0.77	0.53	6.43	48.24	0.05	0.35	0.31	15.6	-4.6	0.06	56.37	48.01	0.48	0.56	0.28
NH4	SPR	15	0.99	0.7	0.64	-29.95	41.6	-0.3	0.41	0.16	-25.15	-41.28	-0.43	42.37	55.62	0.59	0.5	0.41
NH4	SUM	16	0.86	0.66	0.74	-23.71	33.57	-0.2	0.29	0.08	-18.65	-31.68	-0.31	39.92	47.52	0.44	0.34	0.54
NH4	FAL	14	0.64	0.8	0.84	25.37	32.63	0.16	0.21	0.05	50.98	31.99	0.25	54.37	35.81	0.33	0.28	0.71
NH4	ALL	57	0.81	0.73	0.56	-10.58	38.72	-0.09	0.32	0.18	3.95	-12.87	-0.12	47.58	46.88	0.43	0.43	0.32
NO3	WIN	12	0.93	1.31	0.52	40.37	99.13	0.38	0.93	2.98	36.98	-31.03	0.4	107.79	79.28	0.99	1.77	0.27
NO3	SPR	15	0.49	0.51	0.43	4.81	88.23	0.02	0.43	0.38	-2.11	-45.7	0.05	82.52	87.28	0.88	0.62	0.18
NO3	SUM	16	0.31	0.14	0.17	-54.73	64.15	-0.17	0.2	0.02	-52.31	-82.54	-1.21	60.12	88.49	1.42	0.23	0.03
NO3	FAL	14	0.47	0.57	0.45	21.53	72.51	0.1	0.34	0.18	33.58	0.95	0.22	79.44	63.42	0.73	0.43	0.2
NO3	ALL	57	0.53	0.59	0.57	11.85	84.89	0.06	0.45	0.81	0.8	-41.49	0.12	80.79	80.07	0.85	0.9	0.32
OC	WIN	12	2.32	3.14	0.63	35.17	78.11	0.82	1.81	16.24	23.9	0.9	0.35	58.61	45.6	0.78	4.11	0.39
OC	SPR	15	2.03	1.33	0.4	-34.49	42.65	-0.7	0.87	0.77	-26.73	-44.15	-0.53	43.61	56.54	0.65	1.12	0.16
OC	SUM	16	3.39	5.36	0.74	57.91	62.2	1.96	2.11	2.73	68.66	41.14	0.58	74.3	47.17	0.62	2.57	0.55
OC	FAL	15	2.52	2.99	0.67	18.81	46.22	0.47	1.17	2.25	17.2	5.16	0.19	44.03	37.75	0.46	1.57	0.45
OC	ALL	58	2.59	3.24	0.67	25.15	57.17	0.65	1.48	5.86	21.42	1.45	0.25	55.29	46.83	0.57	2.51	0.45
PM-2.5	WIN	12	11.1	10.36	0.6	-6.67	49.48	-0.74	5.49	76.7	-14.12	-26.44	-0.07	42.76	43.8	0.53	8.79	0.36
PM-2.5	SPR	15	13.87	7.12	0.09	-48.67	51.26	-6.75	7.11	34.12	-40.82	-61.02	-0.95	45.28	64.89	1	8.93	0.01
PM-2.5	SUM	16	15.59	12.03	0.61	-22.88	33.66	-3.57	5.25	23.23	-17.81	-28.31	-0.3	37.52	41.88	0.44	6	0.38
PM-2.5	FAL	14	11.65	9.91	0.71	-14.95	25	-1.74	2.91	15.3	-11.67	-16.49	-0.18	23.76	26.44	0.29	4.28	0.5
PM-2.5	ALL	57	13.22	9.86	0.47	-25.42	39.44	-3.36	5.22	40.53	-21.58	-33.62	-0.34	37.28	44.55	0.53	7.2	0.22
SO4	WIN	12	1.82	1.83	0.63	0.35	40.88	0.01	0.74	0.89	2.75	-9.03	0	41.98	42.05	0.41	0.94	0.4
SO4	SPR	15	3.11	2.42	0.51	-21.91	37.09	-0.68	1.15	1.69	-14.25	-25.05	-0.28	37.12	41.98	0.47	1.47	0.26
SO4	SUM	16	3.04	2.15	0.59	-29.41	34.53	-0.89	1.05	0.87	-27.63	-39.75	-0.42	34.19	45.5	0.49	1.29	0.35
SO4	FAL	14	2.13	2.16	0.95	1.03	14.77	0.02	0.32	0.15	9.09	5.28	0.01	20.6	17.65	0.15	0.39	0.91
SO4	ALL	57	2.58	2.16	0.62	-16.42	32.27	-0.42	0.83	1.08	-8.69	-18.35	-0.2	33.26	37.01	0.39	1.12	0.39

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 290470005																		
EC	WIN	27	0.35	0.9	0.75	159.55	159.55	0.55	0.55	0.15	159.1	80.03	1.6	159.1	80.03	1.6	0.68	0.57
EC	SPR	31	0.37	0.62	0.87	69.53	72.38	0.26	0.27	0.09	61.47	40.66	0.7	64.96	44.5	0.72	0.39	0.75
EC	SUM	30	0.41	0.57	0.45	38.97	48.96	0.16	0.2	0.04	47.67	31.17	0.39	54.71	39.33	0.49	0.25	0.2
EC	FAL	30	0.38	0.68	0.74	77.06	79.73	0.29	0.31	0.11	72.16	45.31	0.77	74.7	48.07	0.8	0.44	0.55
EC	ALL	118	0.38	0.69	0.64	81.92	86.09	0.31	0.32	0.11	83.02	48.44	0.82	86.37	52.22	0.86	0.46	0.41
NACL	WIN	26	0.07	0.09	0.24	21.6	59.2	0.02	0.04	0	59.42	22.46	0.22	84.89	57.15	0.59	0.05	0.06
NACL	SPR	28	0.08	0.07	0.68	-20.29	51.36	-0.02	0.04	0	203.55	1.85	-0.25	244.71	58.93	0.64	0.06	0.47
NACL	SUM	27	0.07	0.04	0.46	-49.9	58.51	-0.04	0.04	0	-16.81	-60.06	-1	74.9	86.07	1.17	0.06	0.21
NACL	FAL	29	0.05	0.04	0.15	-26.45	63.74	-0.01	0.03	0	31.97	-10.67	-0.36	76.92	58.45	0.87	0.06	0.02
NACL	ALL	110	0.07	0.06	0.42	-18.65	57.55	-0.01	0.04	0	70.16	-11.78	-0.23	121.02	65.05	0.71	0.06	0.17
NH4	WIN	27	1.45	1.19	0.79	-17.89	35.81	-0.26	0.52	0.43	2.06	-7.82	-0.22	39.26	39.2	0.44	0.71	0.62
NH4	SPR	30	1.29	1.09	0.84	-15.75	33.9	-0.2	0.44	0.36	16.55	-8.28	-0.19	57.29	42.99	0.4	0.63	0.71
NH4	SUM	30	0.63	0.63	0.81	0.31	29.92	0	0.19	0.06	58.37	16.44	0	80.11	42	0.3	0.24	0.66
NH4	FAL	30	0.52	0.64	0.92	22.32	44.72	0.12	0.23	0.06	92.34	42.33	0.22	103.55	55.22	0.45	0.28	0.84
NH4	ALL	117	0.96	0.88	0.86	-8.53	35.4	-0.08	0.34	0.25	43.36	11.14	-0.09	70.84	45	0.39	0.5	0.74
NO3	WIN	27	3.71	2.77	0.86	-25.16	34.49	-0.93	1.28	2.07	-15.13	-24.8	-0.34	35.51	41.16	0.46	1.71	0.73
NO3	SPR	31	1.95	1.63	0.9	-16.61	38.22	-0.32	0.75	1	61.53	-38.09	-0.2	132.99	67.65	0.46	1.05	0.81
NO3	SUM	30	0.32	0.12	0.51	-61.29	61.29	-0.2	0.2	0.01	-59.01	-89.28	-1.58	59.01	89.28	1.58	0.23	0.26
NO3	FAL	30	0.85	0.81	0.94	-5.11	35.4	-0.04	0.3	0.18	4.43	-21.47	-0.05	60.79	59.46	0.37	0.42	0.89
NO3	ALL	118	1.66	1.3	0.91	-21.66	37.07	-0.36	0.61	0.89	-1.17	-43.84	-0.28	73.52	65.01	0.47	1.01	0.82
OC	WIN	27	1.2	3.96	0.69	229.88	230.47	2.76	2.76	4.47	1547.95	100.19	2.3	1548.6	100.82	2.3	3.47	0.47
OC	SPR	31	1.6	2.22	0.77	38.73	57.47	0.62	0.92	1.48	61.08	29.17	0.39	77.18	48.38	0.57	1.36	0.59
OC	SUM	30	1.87	2.34	0.87	25.17	31.48	0.47	0.59	0.4	28.66	18.81	0.25	36.79	28.12	0.31	0.79	0.76
OC	FAL	30	1.2	2.06	0.78	72.29	73.91	0.87	0.88	0.91	68.1	42.58	0.72	70.13	44.83	0.74	1.29	0.6
OC	ALL	118	1.47	2.61	0.57	76.89	84.7	1.13	1.25	2.55	394.84	46.2	0.77	401.79	54.33	0.85	1.96	0.33
PM-2.5	WIN	27	11.04	13.7	0.56	24.12	43.08	2.66	4.75	27.37	39.76	20.2	0.24	55.65	39.99	0.43	5.87	0.32
PM-2.5	SPR	31	10.89	9.91	0.84	-9	29.26	-0.98	3.19	14.14	5.77	-9.58	-0.1	43.06	36.73	0.32	3.89	0.7
PM-2.5	SUM	30	11.11	8.23	0.73	-25.94	30.15	-2.88	3.35	10.58	-19.87	-27.17	-0.35	29.32	33.41	0.41	4.35	0.54
PM-2.5	FAL	30	7.16	8.43	0.64	17.71	42.23	1.27	3.02	13.55	56.4	16.58	0.18	76.47	40.54	0.42	3.89	0.4
PM-2.5	ALL	118	10.03	9.97	0.67	-0.59	35.34	-0.06	3.55	20.51	19.9	-0.59	-0.01	50.94	37.6	0.36	4.53	0.45
SO4	WIN	27	1.65	1.15	0.52	-30.61	45.93	-0.51	0.76	0.78	-18.25	-32.13	-0.44	40.27	49.12	0.66	1.02	0.27
SO4	SPR	31	2.37	1.75	0.68	-26.04	38.61	-0.62	0.91	1.25	215.1	-18.41	-0.35	264.18	45.93	0.52	1.28	0.46
SO4	SUM	30	2.45	1.76	0.78	-28.12	33.56	-0.69	0.82	0.57	-21.53	-30.59	-0.39	33.53	39.55	0.47	1.02	0.6
SO4	FAL	30	1.39	1.2	0.79	-13.98	32.38	-0.19	0.45	0.39	5.23	-2.57	-0.16	33.1	32.91	0.38	0.65	0.62
SO4	ALL	118	1.98	1.47	0.72	-25.4	37.3	-0.5	0.74	0.79	48.19	-20.62	-0.34	95.56	41.73	0.5	1.02	0.52

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 295100085																		
EC	WIN	28	0.74	1.71	0.7	130.73	130.73	0.97	0.97	0.22	144.28	78.16	1.31	144.28	78.16	1.31	1.08	0.49
EC	SPR	28	0.84	1.28	0.83	53.35	53.35	0.45	0.45	0.11	3119.93	45.3	0.53	3119.9	45.3	0.53	0.56	0.69
EC	SUM	31	0.98	1.25	0.51	27.67	36.14	0.27	0.35	0.2	38	24.7	0.28	44.53	32.14	0.36	0.52	0.26
EC	FAL	30	0.87	1.31	0.62	51.09	56.56	0.44	0.49	0.2	71.96	42.78	0.51	74.95	46	0.57	0.63	0.38
EC	ALL	117	0.86	1.38	0.54	61.01	64.98	0.52	0.56	0.25	809.7	47.06	0.61	812.19	49.86	0.65	0.73	0.3
NACL	WIN	28	0.13	0.17	0.53	31.18	63.42	0.04	0.08	0.01	82.83	40.25	0.31	96.48	56.94	0.63	0.11	0.28
NACL	SPR	30	0.07	0.15	0.82	121.2	128.19	0.08	0.09	0.01	172.73	71.71	1.21	179.55	80.89	1.28	0.13	0.67
NACL	SUM	30	0.06	0.06	0.23	-5.63	54.19	0	0.03	0	25.65	1.28	-0.06	63.45	50.62	0.57	0.06	0.05
NACL	FAL	30	0.06	0.11	0.64	77.68	111	0.05	0.07	0.01	80.12	27.75	0.78	106.98	65.29	1.11	0.12	0.42
NACL	ALL	118	0.08	0.12	0.55	52.74	85.18	0.04	0.07	0.01	90.46	35.16	0.53	111.87	63.54	0.85	0.11	0.3
NH4	WIN	28	2	1.68	0.82	-16.16	38.52	-0.32	0.77	0.94	24.44	-1.38	-0.19	60.53	43.18	0.46	1.02	0.67
NH4	SPR	30	1.35	1.43	0.74	5.29	41.15	0.07	0.56	0.55	45.68	17.66	0.05	67.6	44.84	0.41	0.74	0.55
NH4	SUM	31	0.89	0.95	0.66	6.18	34.23	0.06	0.3	0.17	27.87	12.39	0.06	46.81	34.5	0.34	0.42	0.44
NH4	FAL	30	0.73	0.91	0.81	25.25	45.33	0.18	0.33	0.21	67.92	32.06	0.25	81.46	48.03	0.45	0.49	0.66
NH4	ALL	119	1.23	1.23	0.79	0.21	39.46	0	0.48	0.49	41.65	15.44	0	64.01	42.56	0.39	0.7	0.63
NO3	WIN	28	4.12	3.56	0.86	-13.59	32.6	-0.56	1.34	3.07	15.64	-3.71	-0.16	50.63	39.05	0.38	1.84	0.74
NO3	SPR	30	1.81	2.22	0.78	22.5	55.43	0.41	1.01	1.94	69.55	26.69	0.23	92.53	55.88	0.55	1.45	0.61
NO3	SUM	31	0.41	0.29	0.39	-28.42	53.38	-0.12	0.22	0.07	-22.68	-44.17	-0.4	54.31	63.13	0.75	0.29	0.15
NO3	FAL	30	0.93	1.33	0.8	43.17	80.54	0.4	0.75	1.92	29.3	-5.08	0.43	78.19	61.94	0.81	1.44	0.64
NO3	ALL	119	1.77	1.81	0.83	2.37	46.1	0.04	0.81	1.87	22.69	-6.93	0.02	69.1	55.34	0.46	1.37	0.68
OC	WIN	28	2.03	5.98	0.5	194.97	195.77	3.95	3.97	4.17	218.41	93.7	1.95	219.17	94.51	1.96	4.45	0.25
OC	SPR	27	1.87	3.42	0.64	82.83	83.74	1.55	1.56	3.06	88.33	50.75	0.83	89.22	51.66	0.84	2.34	0.41
OC	SUM	31	2.55	3.18	0.69	24.56	37.92	0.63	0.97	1.08	30.24	20.24	0.25	40.98	32.89	0.38	1.21	0.48
OC	FAL	30	1.7	2.7	0.6	58.39	61.69	1	1.05	1.14	79.13	43.12	0.58	81.13	45.28	0.62	1.46	0.36
OC	ALL	116	2.05	3.79	0.45	84.95	90.5	1.74	1.85	3.97	101.83	50.99	0.85	105.6	55.34	0.9	2.64	0.2
PM-2.5	WIN	28	15.53	19.97	0.67	28.62	38.77	4.44	6.02	33.03	46.28	30.29	0.29	53.03	38.61	0.39	7.26	0.45
PM-2.5	SPR	31	12.23	14.44	0.71	18.08	33.02	2.21	4.04	25.03	25.02	15.57	0.18	36.53	29.31	0.33	5.47	0.51
PM-2.5	SUM	31	14.59	12.8	0.66	-12.29	23.76	-1.79	3.47	15.26	-7.47	-11.47	-0.14	23.46	24.61	0.27	4.3	0.43
PM-2.5	FAL	30	9.9	11.75	0.6	18.68	34.51	1.85	3.42	21.15	27.65	16.16	0.19	39.03	29.27	0.35	4.96	0.36
PM-2.5	ALL	120	13.03	14.64	0.65	12.34	32.22	1.61	4.2	28.38	22.25	12.17	0.12	37.63	30.26	0.32	5.56	0.43
SO4	WIN	28	2.27	1.83	0.7	-19.55	34.38	-0.44	0.78	0.93	-13.34	-21.44	-0.24	31.26	35.8	0.43	1.06	0.49
SO4	SPR	30	2.71	2.31	0.55	-14.47	36.38	-0.39	0.98	1.92	-1.77	-11.56	-0.17	35.52	35.4	0.43	1.44	0.3
SO4	SUM	31	3.17	2.58	0.69	-18.6	32.71	-0.59	1.04	1.48	-10.44	-18.28	-0.23	31.81	34.8	0.4	1.35	0.48
SO4	FAL	30	1.89	1.62	0.84	-14.69	29.33	-0.28	0.56	0.58	1.01	-5.79	-0.17	30.57	29.94	0.34	0.81	0.71
SO4	ALL	119	2.52	2.09	0.7	-16.94	33.42	-0.43	0.84	1.25	-6.05	-14.18	-0.2	32.3	33.96	0.4	1.2	0.49

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 310550019																		
EC	WIN	20	0.37	1.28	0.63	243.08	243.08	0.9	0.9	0.16	262.02	108.64	2.43	262.02	108.64	2.43	0.99	0.4
EC	SPR	16	0.42	0.9	0.71	115.38	115.38	0.48	0.48	0.13	145.46	76.37	1.15	145.46	76.37	1.15	0.6	0.5
EC	SUM	24	0.51	0.83	0.71	62.93	64.01	0.32	0.33	0.05	73.67	48.2	0.63	74.69	49.27	0.64	0.4	0.5
EC	FAL	24	0.39	1	0.55	153.53	153.53	0.61	0.61	0.1	168.21	86.04	1.54	168.21	86.04	1.54	0.69	0.3
EC	ALL	84	0.43	1	0.47	134.08	134.45	0.57	0.57	0.15	159.2	78.77	1.34	159.49	79.07	1.34	0.69	0.22
NACL	WIN	23	0.08	0.1	0.14	25.72	64.31	0.02	0.05	0	66.99	28.05	0.26	89.09	57.71	0.64	0.06	0.02
NACL	SPR	24	0.07	0.06	0.84	-5.45	45.12	0	0.03	0	105.48	22.21	-0.06	131.45	55.42	0.48	0.04	0.71
NACL	SUM	25	0.06	0.03	0.5	-47.22	59.3	-0.03	0.03	0	-46.62	-73.01	-0.89	54.55	79.16	1.12	0.04	0.25
NACL	FAL	24	0.04	0.04	0.63	22.98	49.75	0.01	0.02	0	151.68	19.84	0.23	173.75	47.94	0.5	0.03	0.39
NACL	ALL	96	0.06	0.06	0.53	-1.7	55.42	0	0.03	0	68.2	-1.78	-0.02	111.85	60.28	0.56	0.04	0.29
NH4	WIN	23	1.31	1.12	0.73	-14.73	34.54	-0.19	0.45	0.27	3.66	-9.64	-0.17	42.87	40.56	0.41	0.55	0.54
NH4	SPR	25	1.35	1.26	0.81	-6.76	36.74	-0.09	0.5	0.57	0.05	-9.02	-0.07	35.94	36.15	0.39	0.76	0.66
NH4	SUM	26	0.59	0.71	0.88	21.12	37.23	0.12	0.22	0.06	103.64	36.95	0.21	113.57	48.62	0.37	0.27	0.77
NH4	FAL	24	0.45	0.73	0.82	63.4	74.1	0.28	0.33	0.17	110.32	53.98	0.63	115.06	59.16	0.74	0.5	0.67
NH4	ALL	98	0.92	0.95	0.8	3.64	40.52	0.03	0.37	0.3	55.39	18.46	0.04	77.54	46.13	0.41	0.55	0.65
NO3	WIN	23	3.32	2.49	0.8	-24.92	34.11	-0.83	1.13	1.3	-19.42	-29.62	-0.33	36.13	42.95	0.45	1.41	0.64
NO3	SPR	25	2.41	2.18	0.9	-9.6	36.52	-0.23	0.88	1.25	-7.76	-30.15	-0.11	50.03	58.64	0.4	1.14	0.81
NO3	SUM	26	0.47	0.27	0.88	-42.29	46.92	-0.2	0.22	0.04	-42.82	-63.34	-0.73	50.26	68.81	0.81	0.28	0.78
NO3	FAL	24	0.93	1.1	0.94	17.76	44.17	0.17	0.41	0.56	0.21	-17.14	0.18	49.94	52.11	0.44	0.76	0.89
NO3	ALL	98	1.75	1.48	0.89	-15.2	37.19	-0.27	0.65	0.89	-17.85	-35.64	-0.18	46.81	56.06	0.44	0.98	0.78
OC	WIN	20	1.08	3.68	0.46	240.87	240.87	2.6	2.6	2.23	283.19	105.63	2.41	283.19	105.63	2.41	3	0.21
OC	SPR	16	1.47	2.32	0.77	57.22	68.2	0.84	1.01	4.03	87.84	42.16	0.57	95.55	50.84	0.68	2.18	0.59
OC	SUM	24	1.53	2.01	0.71	31.22	37.15	0.48	0.57	0.49	32.31	21.06	0.31	39.52	29.47	0.37	0.84	0.5
OC	FAL	24	1.14	2.01	0.55	75.99	77.15	0.87	0.88	0.61	90.44	54.06	0.76	91.08	54.72	0.77	1.17	0.3
OC	ALL	84	1.3	2.47	0.53	89.48	94.13	1.17	1.23	2.28	119.23	54.64	0.89	122.94	58.89	0.94	1.91	0.28
PM-2.5	WIN	24	10.58	12.82	0.68	21.16	29.93	2.24	3.17	10.45	27.22	19.98	0.21	33.63	27.22	0.3	3.93	0.46
PM-2.5	SPR	24	10.9	11.6	0.72	6.42	36.58	0.7	3.99	35.07	11.91	2.3	0.06	36.63	33.91	0.37	5.96	0.52
PM-2.5	SUM	26	11.49	8.58	0.74	-25.33	30.49	-2.91	3.5	10.18	-20.57	-27.11	-0.34	28.6	34.29	0.41	4.32	0.54
PM-2.5	FAL	24	8.03	9.35	0.53	16.52	38.15	1.33	3.06	19.87	26.09	14.36	0.17	41.06	31.52	0.38	4.65	0.28
PM-2.5	ALL	98	10.27	10.54	0.63	2.65	33.39	0.27	3.43	22.67	10.51	1.78	0.03	34.85	31.79	0.33	4.77	0.39
SO4	WIN	23	1.39	1.1	0.47	-20.77	45.33	-0.29	0.63	0.6	-13.83	-26.13	-0.26	40.7	46.94	0.57	0.83	0.22
SO4	SPR	25	2.1	1.8	0.73	-14.26	34.57	-0.3	0.73	1.41	-14.28	-20.83	-0.17	27.19	30.41	0.4	1.22	0.53
SO4	SUM	26	2.2	1.84	0.78	-16.47	30.93	-0.36	0.68	0.68	-4.98	-15.58	-0.2	37.68	38.03	0.37	0.9	0.62
SO4	FAL	24	1.05	1.21	0.8	14.89	36.78	0.16	0.39	0.24	31.58	18.29	0.15	44.44	33.45	0.37	0.52	0.64
SO4	ALL	98	1.7	1.5	0.74	-11.86	35.72	-0.2	0.61	0.78	-0.47	-11.1	-0.13	37.37	37.06	0.41	0.91	0.54

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 340230006																		
EC	WIN	24	0.61	1.38	0.9	124.1	124.1	0.76	0.76	0.18	140.77	78.89	1.24	140.77	78.89	1.24	0.87	0.82
EC	SPR	25	0.4	0.77	0.59	91.57	93.09	0.37	0.37	0.08	112.29	63.8	0.92	113.56	65.18	0.93	0.47	0.35
EC	SUM	23	0.68	0.94	0.6	37.89	51.25	0.26	0.35	0.09	56.96	36.62	0.38	64.41	45.11	0.51	0.4	0.36
EC	FAL	23	0.71	1.37	0.89	91.9	91.9	0.66	0.66	0.18	97.06	61.63	0.92	97.06	61.63	0.92	0.78	0.8
EC	ALL	95	0.6	1.11	0.77	85.31	89.26	0.51	0.53	0.18	102.4	60.5	0.85	104.54	62.92	0.89	0.66	0.59
NACL	WIN	23	0.1	0.13	0.23	26.18	92.2	0.03	0.09	0.02	77.26	19.48	0.26	108.25	63.92	0.92	0.15	0.05
NACL	SPR	24	0.26	0.36	0.83	41.89	84.28	0.11	0.22	0.18	103.18	37.08	0.42	120.87	61.95	0.84	0.44	0.69
NACL	SUM	23	0.09	0.19	0.42	122.49	163.93	0.11	0.14	0.07	103.26	18.18	1.22	142.31	74.67	1.64	0.29	0.17
NACL	FAL	21	0.09	0.14	0.12	63.59	101.92	0.05	0.09	0.07	122.1	-5.14	0.64	160.35	47.52	1.02	0.28	0.01
NACL	ALL	91	0.14	0.21	0.75	55.03	101.19	0.07	0.14	0.09	101.01	18.11	0.55	132.21	62.33	1.01	0.31	0.56
NH4	WIN	23	0.92	1.18	0.68	28.06	36.58	0.26	0.34	0.34	59.41	26.32	0.28	62.71	29.91	0.37	0.64	0.46
NH4	SPR	24	0.73	0.74	0.78	1.03	31.21	0.01	0.23	0.09	14.5	-5.28	0.01	48.01	41.24	0.31	0.3	0.6
NH4	SUM	23	0.83	0.77	0.74	-6.62	40.18	-0.05	0.33	0.21	58.44	11.85	-0.07	88.89	50.51	0.43	0.47	0.54
NH4	FAL	21	0.48	1.06	0.83	119.2	119.31	0.57	0.57	0.16	334.89	91.33	1.19	334.99	91.43	1.19	0.7	0.7
NH4	ALL	91	0.75	0.93	0.66	24.89	48.52	0.19	0.36	0.26	110.89	29.33	0.25	128.28	52.3	0.49	0.54	0.44
NO3	WIN	23	1.72	2.68	0.73	55.62	60.2	0.96	1.04	2.35	63.22	32.3	0.56	73.71	47.79	0.6	1.81	0.54
NO3	SPR	25	0.96	1.04	0.58	8.47	60.92	0.08	0.59	0.61	568.39	11.89	0.08	606.97	69.61	0.61	0.78	0.33
NO3	SUM	23	0.49	0.49	0.68	0.92	53.69	0	0.26	0.21	-3.4	-36.8	0.01	64.65	63.94	0.54	0.45	0.46
NO3	FAL	21	0.82	1.83	0.77	123.13	141.77	1.01	1.16	1.74	112.87	38.47	1.23	139.36	74.42	1.42	1.66	0.59
NO3	ALL	92	1	1.49	0.71	49.32	74.88	0.49	0.75	1.42	195.17	10.89	0.49	231.34	63.83	0.75	1.29	0.51
OC	WIN	24	1.36	4.83	0.84	254.1	254.1	3.47	3.47	3.14	300.26	114.58	2.54	300.26	114.58	2.54	3.89	0.71
OC	SPR	25	0.89	1.91	0.35	114.2	126.61	1.02	1.13	0.88	230.66	79.03	1.14	235.65	84.86	1.27	1.39	0.13
OC	SUM	23	1.92	2.26	0.69	17.97	36.36	0.34	0.7	0.62	29.94	20.45	0.18	40.73	32.69	0.36	0.86	0.48
OC	FAL	23	1.38	2.94	0.88	113.17	113.17	1.56	1.56	1.37	137.11	74.54	1.13	137.11	74.54	1.13	1.95	0.77
OC	ALL	95	1.38	2.98	0.55	116.53	124.85	1.6	1.72	2.86	177	72.74	1.17	180.92	77.24	1.25	2.33	0.3
PM-2.5	WIN	23	8.14	15.04	0.69	84.74	84.74	6.9	6.9	32.37	127.2	56.7	0.85	127.2	56.7	0.85	8.94	0.48
PM-2.5	SPR	25	8.54	7.96	0.33	-6.72	39.85	-0.57	3.4	16.15	9.93	-5.48	-0.07	46.35	43.56	0.43	4.06	0.11
PM-2.5	SUM	24	13.29	8.82	0.59	-33.63	40.42	-4.47	5.37	25.25	-8.69	-35.39	-0.51	55.64	49.97	0.61	6.72	0.35
PM-2.5	FAL	21	9.6	11.65	0.77	21.42	33.24	2.06	3.19	15.37	27.51	17.18	0.21	38.11	29.43	0.33	4.43	0.59
PM-2.5	ALL	93	9.9	10.77	0.39	8.71	47.72	0.86	4.73	39.55	38.1	7.29	0.09	66.88	45.27	0.48	6.35	0.15
SO4	WIN	24	1.57	1.3	0.7	-17.65	31.98	-0.28	0.5	0.39	99.95	-12.34	-0.21	142.05	38.68	0.39	0.68	0.49
SO4	SPR	25	1.85	1.49	0.73	-19.24	29.82	-0.36	0.55	0.38	69.06	-15.39	-0.24	111.06	38.08	0.37	0.71	0.53
SO4	SUM	24	2.91	2.21	0.71	-23.94	38.85	-0.7	1.13	2.05	230.05	-17.76	-0.31	278.44	45.62	0.51	1.59	0.51
SO4	FAL	21	1.67	1.68	0.9	0.46	19.15	0.01	0.32	0.19	10.13	5.35	0	25.47	23.23	0.19	0.43	0.81
SO4	ALL	94	2.01	1.67	0.76	-17	31.61	-0.34	0.63	0.83	104.88	-10.58	-0.2	142.59	36.84	0.38	0.97	0.58

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 340273001																		
EC	WIN	11	0.38	0.72	0.87	91.08	96.88	0.34	0.36	0.12	90.62	53.69	0.91	95.67	59.55	0.97	0.49	0.76
EC	SPR	25	0.25	0.45	0.72	79.9	82.85	0.2	0.21	0.05	90.58	52.83	0.8	92.11	54.53	0.83	0.29	0.51
EC	SUM	25	0.44	0.58	0.65	30.48	44.4	0.13	0.2	0.06	66.02	26.96	0.3	75.04	37.72	0.44	0.28	0.42
EC	FAL	22	0.41	0.68	0.54	67.26	78.15	0.27	0.32	0.09	87.07	48.92	0.67	92.71	55.48	0.78	0.4	0.29
EC	ALL	83	0.37	0.59	0.66	59.72	69.39	0.22	0.25	0.07	82.26	44.12	0.6	87.6	50.38	0.69	0.35	0.44
NACL	WIN	23	0.04	0.1	0.14	122.08	166.03	0.05	0.07	0.01	1142.49	63.79	1.22	1161	90.2	1.66	0.11	0.02
NACL	SPR	21	0.07	0.22	0.32	198.04	235.97	0.15	0.18	0.11	234.39	53.89	1.98	259.01	90.98	2.36	0.36	0.1
NACL	SUM	22	0.04	0.16	0.66	285.02	317.58	0.12	0.14	0.11	225.01	30.1	2.85	263.8	85.97	3.18	0.35	0.44
NACL	FAL	25	0.04	0.12	0.48	171.92	197.09	0.08	0.09	0.03	914.99	46.63	1.72	935.77	75.4	1.97	0.19	0.23
NACL	ALL	91	0.05	0.15	0.42	192.85	227.97	0.1	0.12	0.06	648.62	48.65	1.93	674.06	85.29	2.28	0.27	0.17
NH4	WIN	24	0.8	0.96	0.75	19.82	34.3	0.16	0.28	0.17	38.37	23.06	0.2	47.21	32.82	0.34	0.44	0.57
NH4	SPR	24	0.56	0.67	0.67	19.14	40.58	0.11	0.23	0.1	53.79	18.31	0.19	73.64	44.61	0.41	0.34	0.44
NH4	SUM	23	0.72	0.69	0.73	-3.9	41.91	-0.03	0.3	0.18	59.59	16.03	-0.04	85.31	49.26	0.44	0.42	0.53
NH4	FAL	24	0.5	0.82	0.66	63.48	86.25	0.32	0.43	0.15	201.5	72.68	0.63	207.46	79.94	0.86	0.5	0.44
NH4	ALL	95	0.65	0.79	0.68	21.89	47.94	0.14	0.31	0.16	88.61	32.7	0.22	103.59	51.69	0.48	0.43	0.47
NO3	WIN	24	1.36	2.08	0.66	52.73	65.01	0.72	0.88	1.32	80.47	31.03	0.53	98.86	60.17	0.65	1.35	0.44
NO3	SPR	24	0.71	0.75	0.44	5.23	66.67	0.04	0.47	0.4	41.92	5.78	0.05	81.47	61.2	0.67	0.63	0.2
NO3	SUM	24	0.38	0.28	0.66	-26.67	63.91	-0.1	0.24	0.09	-20.97	-68.31	-0.36	82.09	94.26	0.87	0.32	0.44
NO3	FAL	25	0.7	1.04	0.67	48.35	78.15	0.34	0.55	0.37	69.4	15.38	0.48	107.07	69.81	0.78	0.69	0.45
NO3	ALL	97	0.79	1.04	0.71	31.65	68.27	0.25	0.54	0.64	42.98	-3.83	0.32	92.53	71.34	0.68	0.84	0.51
OC	WIN	11	0.92	2.59	0.77	180.29	180.29	1.66	1.66	1.31	186.93	91.21	1.8	186.93	91.21	1.8	2.02	0.59
OC	SPR	25	0.64	1.4	0.68	116.82	117.45	0.75	0.76	0.36	2851.64	79.36	1.17	2852.6	80.35	1.17	0.96	0.46
OC	SUM	25	1.6	1.77	0.71	10.83	31.68	0.17	0.51	0.35	17.1	10.42	0.11	34.03	30.2	0.32	0.62	0.51
OC	FAL	21	1.07	1.88	0.52	75.09	86.78	0.81	0.93	0.63	137.91	63.54	0.75	142.46	68.71	0.87	1.13	0.27
OC	ALL	82	1.08	1.8	0.54	65.77	78.24	0.71	0.85	0.77	935.01	55.88	0.66	941.62	63.54	0.78	1.13	0.29
PM-2.5	WIN	24	7.59	10.7	0.78	41.05	47.17	3.11	3.58	16.12	42.91	28.52	0.41	49.95	36.66	0.47	5.08	0.62
PM-2.5	SPR	24	6.93	6.17	0.62	-10.9	29.54	-0.75	2.05	7.96	-3.74	-13.23	-0.12	31.28	32.37	0.33	2.92	0.38
PM-2.5	SUM	22	9.89	6.45	0.6	-34.75	38	-3.44	3.76	10.13	-32.88	-42.97	-0.53	35.6	45.36	0.58	4.68	0.36
PM-2.5	FAL	24	6.46	8.06	0.7	24.85	38.39	1.6	2.48	8.2	87.81	24.04	0.25	97.9	35.29	0.38	3.28	0.49
PM-2.5	ALL	94	7.67	7.88	0.55	2.72	38.45	0.21	2.95	16.61	24.73	-0.01	0.03	54.07	37.25	0.38	4.08	0.3
SO4	WIN	24	1.71	1.22	0.68	-28.84	35.2	-0.49	0.6	0.43	-25.02	-33.04	-0.41	32.1	39.15	0.49	0.82	0.46
SO4	SPR	24	1.64	1.53	0.71	-6.59	27.89	-0.11	0.46	0.41	-4.24	-9.95	-0.07	26.59	27.62	0.3	0.65	0.51
SO4	SUM	24	2.64	2.07	0.66	-21.69	40.87	-0.57	1.08	2.13	-8.65	-19.27	-0.28	38.57	41.65	0.52	1.57	0.43
SO4	FAL	25	1.54	1.62	0.75	5.05	37.71	0.08	0.58	0.73	26.95	12.96	0.05	48.31	38.75	0.38	0.86	0.56
SO4	ALL	97	1.88	1.61	0.69	-14.39	36.13	-0.27	0.68	0.99	-2.43	-12.06	-0.17	36.52	36.81	0.42	1.03	0.48

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 340390004																		
EC	WIN	22	1.43	2.04	0.71	42.69	56.16	0.61	0.8	0.56	76.24	44.56	0.43	82.04	52.37	0.56	0.97	0.51
EC	SPR	25	1.3	1.31	0.47	0.73	44.41	0.01	0.58	0.51	24.51	7.44	0.01	54.24	45.6	0.44	0.71	0.22
EC	SUM	23	2	1.5	0.72	-25.3	35.73	-0.51	0.72	0.58	-12.79	-21.6	-0.34	34.58	38	0.48	0.91	0.51
EC	FAL	20	2.1	1.97	0.82	-6.14	26.34	-0.13	0.55	0.46	7.95	0.59	-0.07	32.25	30.64	0.28	0.69	0.67
EC	ALL	90	1.69	1.68	0.64	-0.35	39.23	-0.01	0.66	0.69	23.94	7.57	0	51.12	41.99	0.39	0.83	0.41
NACL	WIN	22	0.12	0.17	0.31	46.04	72.02	0.05	0.09	0.02	67.22	25.01	0.46	83.81	47.58	0.72	0.15	0.09
NACL	SPR	25	0.27	0.47	0.94	75.51	106.8	0.2	0.28	0.52	99.57	40.51	0.76	113.22	59.71	1.07	0.75	0.88
NACL	SUM	22	0.07	0.25	0.54	259.8	277.67	0.18	0.19	0.2	175.08	38.14	2.6	200.73	70	2.78	0.48	0.29
NACL	FAL	21	0.11	0.17	0.95	48.62	66.42	0.06	0.08	0.02	22.14	3.46	0.49	56.12	46.87	0.66	0.14	0.9
NACL	ALL	90	0.15	0.27	0.88	86.24	112.48	0.13	0.16	0.21	92.05	27.5	0.86	114.1	56.27	1.12	0.47	0.78
NH4	WIN	22	1.39	1.31	0.81	-5.31	27.5	-0.07	0.38	0.28	2.95	-2.17	-0.06	27.31	25.94	0.29	0.54	0.66
NH4	SPR	25	0.92	0.8	0.79	-13.15	33.27	-0.12	0.31	0.17	-2.27	-16.12	-0.15	38.75	41.82	0.38	0.44	0.63
NH4	SUM	22	1.07	0.79	0.64	-26.55	38.3	-0.28	0.41	0.53	-2.58	-12.74	-0.36	33.97	36.6	0.52	0.78	0.41
NH4	FAL	21	0.81	1.03	0.91	27.62	33.71	0.22	0.27	0.07	99.99	43.31	0.28	104.19	47.76	0.34	0.34	0.83
NH4	ALL	90	1.05	0.98	0.75	-6.63	32.74	-0.07	0.34	0.29	22.79	1.98	-0.07	50.05	38.05	0.35	0.55	0.56
NO3	WIN	22	2.41	2.8	0.73	16.39	38.13	0.39	0.92	2.05	28.21	7.69	0.16	53.9	44.46	0.38	1.48	0.53
NO3	SPR	25	1.35	1.05	0.74	-22.29	52.1	-0.3	0.7	1.12	11.9	-14.41	-0.29	62.93	57.91	0.67	1.1	0.54
NO3	SUM	22	0.82	0.46	0.47	-44.7	65.11	-0.37	0.54	0.84	-26.67	-62.02	-0.81	68.96	84.04	1.18	0.99	0.22
NO3	FAL	21	1.32	1.6	0.91	21.49	52.28	0.28	0.69	0.62	12.11	-9.95	0.21	61.49	59.53	0.52	0.84	0.84
NO3	ALL	90	1.47	1.46	0.74	-0.75	48.33	-0.01	0.71	1.28	6.51	-19.6	-0.01	61.86	61.39	0.49	1.13	0.54
OC	WIN	22	2.01	6.52	0.77	224.62	224.62	4.51	4.51	5.99	268.15	107.43	2.25	268.15	107.43	2.25	5.13	0.59
OC	SPR	25	1.58	2.74	0.36	72.75	86.64	1.15	1.37	1.85	126.22	54.87	0.73	135.85	66.11	0.87	1.78	0.13
OC	SUM	23	2.41	2.77	0.83	14.86	26.75	0.36	0.64	0.46	25.19	17.95	0.15	32.96	26.7	0.27	0.77	0.69
OC	FAL	20	2.2	3.88	0.87	76.02	76.86	1.68	1.69	1.72	84.15	53.45	0.76	85.25	54.62	0.77	2.13	0.76
OC	ALL	90	2.04	3.92	0.53	92.65	99.45	1.89	2.02	4.92	125.75	57.97	0.93	130.65	63.59	0.99	2.91	0.28
PM-2.5	WIN	22	12.71	19.56	0.93	53.88	53.93	6.85	6.86	17.96	57.43	42.71	0.54	57.49	42.77	0.54	8.06	0.87
PM-2.5	SPR	25	10.67	10.57	0.6	-1	31.58	-0.11	3.37	17.75	9.27	1.21	-0.01	33.42	32.2	0.32	4.21	0.36
PM-2.5	SUM	23	15.65	10.81	0.66	-30.91	35.34	-4.84	5.53	35.62	-23.17	-31.66	-0.45	31.84	38.59	0.51	7.68	0.43
PM-2.5	FAL	21	12.62	14.23	0.83	12.7	25.47	1.6	3.22	14.62	17.65	12.02	0.13	28.94	25.26	0.25	4.15	0.68
PM-2.5	ALL	91	12.87	13.65	0.61	6.01	36.69	0.77	4.72	38.85	14.65	5.43	0.06	37.81	34.77	0.37	6.28	0.37
SO4	WIN	22	2.17	1.54	0.79	-28.99	33.97	-0.63	0.74	0.44	-23.22	-30.32	-0.41	31.5	37.5	0.48	0.92	0.62
SO4	SPR	25	2.08	1.75	0.78	-15.94	25.16	-0.33	0.52	0.43	-9.48	-15.14	-0.19	24.66	27.9	0.3	0.74	0.61
SO4	SUM	22	3.09	2.41	0.68	-21.9	32.75	-0.68	1.01	2.56	-10.3	-16.77	-0.28	27.36	31.4	0.42	1.74	0.47
SO4	FAL	21	1.93	1.85	0.81	-4.24	25.46	-0.08	0.49	0.42	13.37	5.23	-0.04	33.53	29.43	0.27	0.65	0.65
SO4	ALL	90	2.31	1.88	0.74	-18.6	29.72	-0.43	0.69	1.01	-7.71	-14.5	-0.23	29.06	31.46	0.37	1.09	0.55

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 350010023																		
EC	WIN	24	1.09	1.03	0.81	-5.31	36.95	-0.06	0.4	0.33	28.31	14.69	-0.06	48.96	39.84	0.39	0.58	0.66
EC	SPR	25	0.28	0.6	0.87	112.89	112.89	0.32	0.32	0.02	140.46	77.18	1.13	140.46	77.18	1.13	0.34	0.76
EC	SUM	26	0.51	0.61	0.42	18.84	62.44	0.1	0.32	0.21	61.18	36.82	0.19	71.92	52.98	0.62	0.47	0.17
EC	FAL	23	0.52	0.75	0.83	44.7	52.01	0.23	0.27	0.03	65.15	43.8	0.45	68.45	47.33	0.52	0.3	0.69
EC	ALL	98	0.6	0.74	0.76	24.72	55.04	0.15	0.33	0.17	74.29	43.34	0.25	82.96	54.61	0.55	0.44	0.58
NACL	WIN	25	0.05	0.05	0.5	15.19	58.77	0.01	0.03	0	66.19	28.82	0.15	89.16	57.95	0.59	0.03	0.25
NACL	SPR	24	0.05	0.06	0.88	23.48	34.71	0.01	0.02	0	38.12	22.9	0.23	49.81	36.68	0.35	0.02	0.78
NACL	SUM	24	0.06	0.02	0.29	-61.69	64.09	-0.04	0.04	0	-55.78	-87.31	-1.61	59.3	90.49	1.67	0.05	0.09
NACL	FAL	24	0.03	0.02	0.15	-24.59	43.7	-0.01	0.01	0	-13.69	-28.49	-0.33	43.73	48.06	0.58	0.02	0.02
NACL	ALL	97	0.05	0.04	0.47	-14.11	51.68	-0.01	0.03	0	9.3	-15.56	-0.16	60.8	58.29	0.6	0.03	0.23
NH4	WIN	25	0.33	0.37	0.86	10.92	36.49	0.04	0.12	0.02	97.86	26.04	0.11	114.44	45.02	0.36	0.15	0.74
NH4	SPR	25	0.23	0.18	0.34	-24.42	43.47	-0.06	0.1	0.03	-3.38	-13	-0.32	34.94	38.75	0.58	0.17	0.11
NH4	SUM	24	0.31	0.18	0.42	-41.79	50.01	-0.13	0.16	0.02	-25.36	-44.61	-0.72	51.52	61.44	0.86	0.2	0.18
NH4	FAL	24	0.24	0.19	0.18	-20.19	42.55	-0.05	0.1	0.02	0.65	-13.22	-0.25	45.23	44.69	0.53	0.15	0.03
NH4	ALL	98	0.28	0.23	0.59	-17.57	42.94	-0.05	0.12	0.03	18.05	-10.83	-0.21	61.8	47.36	0.52	0.17	0.35
NO3	WIN	25	1.17	0.7	0.93	-40.46	44.13	-0.47	0.52	0.35	-24.2	-37.75	-0.68	40.65	49.33	0.74	0.76	0.86
NO3	SPR	25	0.29	0.15	0.66	-47.74	50.92	-0.14	0.15	0.03	-38.28	-54.99	-0.91	42.33	58.6	0.97	0.23	0.43
NO3	SUM	24	0.24	0.12	0.26	-50.88	54.77	-0.12	0.13	0.03	-32.69	-50.72	-1.04	40.35	56.95	1.11	0.22	0.07
NO3	FAL	24	0.34	0.19	0.79	-42.05	51.34	-0.14	0.17	0.05	-23.7	-41.07	-0.73	47.63	59.55	0.89	0.26	0.62
NO3	ALL	98	0.51	0.29	0.93	-42.94	47.47	-0.22	0.24	0.14	-29.75	-46.14	-0.75	42.71	56.06	0.83	0.43	0.86
OC	WIN	24	2.31	4.75	0.87	105.74	107.77	2.44	2.49	1.06	183.99	85.63	1.06	184.49	86.15	1.08	2.65	0.75
OC	SPR	25	0.62	1.98	0.65	216.93	216.93	1.35	1.35	0.64	278.27	104.27	2.17	278.27	104.27	2.17	1.57	0.43
OC	SUM	26	2.48	2	0.38	-19.4	67.73	-0.48	1.68	12.01	47.15	22.44	-0.24	69.68	56.33	0.84	3.5	0.14
OC	FAL	23	1.05	2.34	0.73	122.24	122.24	1.29	1.29	0.51	144.82	76.81	1.22	144.82	76.81	1.22	1.47	0.54
OC	ALL	98	1.63	2.75	0.45	68.49	104.42	1.12	1.7	4.86	162.54	71.55	0.68	168.64	80.67	1.04	2.47	0.2
PM-2.5	WIN	25	8.25	13.72	0.81	66.3	74.26	5.47	6.13	12.19	102.4	58.48	0.66	106.94	63.91	0.74	6.49	0.66
PM-2.5	SPR	24	5.6	7.89	0.34	40.86	55.66	2.29	3.12	9.77	60.45	34.42	0.41	71.32	47.29	0.56	3.87	0.11
PM-2.5	SUM	24	8.73	7.41	0.25	-15.09	55.63	-1.32	4.86	71.27	40.68	10.67	-0.18	69.19	50.65	0.66	8.54	0.06
PM-2.5	FAL	24	5.55	9.4	0.54	69.44	76.18	3.85	4.23	9.21	79.93	50.31	0.69	83.71	55.21	0.76	4.91	0.29
PM-2.5	ALL	97	7.05	9.65	0.41	36.96	65.27	2.6	4.6	31.8	71.19	38.68	0.37	83.04	54.37	0.65	6.21	0.17
SO4	WIN	25	0.4	0.6	0.38	51.93	60.48	0.21	0.24	0.03	69.93	44.89	0.52	74.57	50.28	0.6	0.27	0.14
SO4	SPR	25	0.66	0.59	0.58	-10.92	37.87	-0.07	0.25	0.16	8.44	0.86	-0.12	33.46	32.47	0.43	0.41	0.34
SO4	SUM	24	0.9	0.54	0.53	-40.67	40.67	-0.37	0.37	0.1	-38.13	-50.84	-0.69	38.13	50.84	0.69	0.49	0.28
SO4	FAL	24	0.65	0.54	0.11	-17.59	39.52	-0.11	0.26	0.12	-2.16	-11.89	-0.21	37.89	40.27	0.48	0.36	0.01
SO4	ALL	98	0.65	0.57	0.33	-12.91	42.74	-0.08	0.28	0.14	10.13	-3.69	-0.15	46.17	43.42	0.49	0.39	0.11

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 360010005																		
EC	WIN	27	0.93	0.98	0.77	5.12	45.39	0.05	0.42	0.25	66.49	28.72	0.05	86.21	52.45	0.45	0.5	0.6
EC	SPR	28	0.44	0.56	0.56	26.88	50	0.12	0.22	0.06	55.69	29.54	0.27	72.52	50.67	0.5	0.26	0.32
EC	SUM	28	0.84	0.54	0.74	-35.25	37.34	-0.3	0.31	0.07	-26.98	-35.47	-0.54	32.19	40.14	0.58	0.4	0.55
EC	FAL	30	0.83	0.68	0.6	-18.03	37.13	-0.15	0.31	0.15	8.43	-5.47	-0.22	42.3	39.12	0.45	0.42	0.36
EC	ALL	113	0.76	0.69	0.65	-9.53	41.46	-0.07	0.31	0.16	25.24	3.94	-0.11	57.78	45.42	0.46	0.4	0.42
NACL	WIN	28	0.22	0.12	0.17	-44.93	81.91	-0.1	0.18	0.1	67.19	4.18	-0.82	113.27	76.57	1.49	0.34	0.03
NACL	SPR	28	0.09	0.11	0.8	28.78	55.44	0.02	0.05	0	65.15	25.38	0.29	85.06	50.53	0.55	0.07	0.64
NACL	SUM	26	0.04	0.05	0.65	3.82	64.29	0	0.03	0	5.59	-20.66	0.04	62.28	57.51	0.64	0.04	0.42
NACL	FAL	28	0.06	0.08	0.56	47.42	69.27	0.03	0.04	0	64.09	25.24	0.47	83.76	50.43	0.69	0.06	0.32
NACL	ALL	110	0.1	0.09	0.33	-11.58	72.76	-0.01	0.07	0.03	51.32	9.06	-0.13	86.53	58.78	0.82	0.18	0.11
NH4	WIN	28	1.17	0.96	0.74	-17.79	34.45	-0.21	0.4	0.26	3.38	-9.04	-0.22	40.47	38.83	0.42	0.55	0.54
NH4	SPR	28	0.52	0.68	0.68	31.23	47.01	0.16	0.24	0.1	74.22	28.51	0.31	85.88	42.54	0.47	0.35	0.46
NH4	SUM	28	0.52	0.55	0.76	6.52	44.68	0.03	0.23	0.09	68.37	23.19	0.07	90.66	51.82	0.45	0.3	0.58
NH4	FAL	27	0.45	0.67	0.77	49.3	62.07	0.22	0.28	0.09	177.89	58.03	0.49	184.82	65.95	0.62	0.38	0.59
NH4	ALL	111	0.66	0.72	0.74	7.6	43.45	0.05	0.29	0.16	80.09	24.88	0.08	99.7	49.64	0.43	0.41	0.55
NO3	WIN	28	2.42	2.02	0.69	-16.64	39.21	-0.4	0.95	1.48	-1.57	-16.75	-0.2	46.78	46.67	0.47	1.28	0.48
NO3	SPR	29	0.65	0.61	0.66	-5.43	55.21	-0.04	0.36	0.29	-5.69	-30.57	-0.06	55.97	62.99	0.58	0.54	0.44
NO3	SUM	28	0.32	0.11	0.4	-66.22	67.1	-0.21	0.22	0.02	-64.22	-105.65	-1.96	65.2	106.57	1.99	0.26	0.16
NO3	FAL	28	0.55	0.68	0.44	21.91	84.74	0.12	0.47	0.49	18.68	-28.75	0.22	88.54	81.38	0.85	0.71	0.2
NO3	ALL	113	0.98	0.85	0.78	-13.41	50.55	-0.13	0.5	0.6	-13.13	-45.3	-0.15	64.05	74.3	0.58	0.79	0.61
OC	WIN	27	2.3	4.86	0.79	111.1	111.1	2.56	2.56	1.57	192.78	83.79	1.11	192.78	83.79	1.11	2.85	0.63
OC	SPR	28	1.13	2.27	0.68	102.05	108.82	1.15	1.22	1.12	136.71	63.68	1.02	142.22	69.95	1.09	1.56	0.46
OC	SUM	28	2.19	1.87	0.64	-14.69	25.88	-0.32	0.57	0.57	-9.66	-14.17	-0.17	23.02	25.43	0.3	0.82	0.41
OC	FAL	30	1.6	2.37	0.63	48.3	54.89	0.77	0.88	0.65	69.87	42.18	0.48	73.97	46.75	0.55	1.12	0.4
OC	ALL	113	1.8	2.82	0.62	56.81	71.69	1.02	1.29	2	96.1	43.49	0.57	106.64	56.06	0.72	1.74	0.38
PM-2.5	WIN	28	12.42	13.09	0.8	5.43	27.75	0.67	3.45	19.21	22.13	13.82	0.05	35.96	29.57	0.28	4.43	0.63
PM-2.5	SPR	29	6.41	7.47	0.72	16.41	35.62	1.05	2.28	6.89	21.82	13.42	0.16	38.38	33.81	0.36	2.83	0.52
PM-2.5	SUM	28	9.01	6.1	0.68	-32.27	35.45	-2.91	3.19	9.87	-26.2	-35.12	-0.48	30.35	39.02	0.52	4.28	0.46
PM-2.5	FAL	28	8.28	7.65	0.8	-7.61	26.51	-0.63	2.19	7.4	2.29	-4.19	-0.08	29.63	28.9	0.29	2.79	0.64
PM-2.5	ALL	113	9.01	8.57	0.76	-4.87	30.81	-0.44	2.77	13.2	5.16	-2.87	-0.05	33.62	32.84	0.32	3.66	0.57
SO4	WIN	28	1.7	1.17	0.61	-31.5	39.26	-0.54	0.67	0.38	-25.5	-36.19	-0.46	36.83	44.41	0.57	0.82	0.37
SO4	SPR	29	1.3	1.56	0.67	19.98	37.56	0.26	0.49	0.64	26.29	13.64	0.2	41.31	31.18	0.38	0.84	0.44
SO4	SUM	28	1.98	1.56	0.75	-21.13	32.5	-0.42	0.64	0.95	-7.03	-18.25	-0.27	33.31	37.08	0.41	1.06	0.56
SO4	FAL	28	1.5	1.44	0.9	-3.81	28.07	-0.06	0.42	0.41	13.22	4.31	-0.04	36.85	33.21	0.29	0.64	0.8
SO4	ALL	113	1.62	1.43	0.71	-11.36	34.29	-0.18	0.55	0.69	1.96	-8.92	-0.13	37.11	36.42	0.39	0.85	0.5

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 360290005																		
EC	WIN	15	0.43	0.79	0.38	81.63	83.09	0.35	0.36	0.05	96.47	59.12	0.82	97.21	59.88	0.83	0.42	0.14
EC	SPR	14	0.52	0.64	0.36	22.75	50.42	0.12	0.26	0.07	46.14	27.46	0.23	61.33	45.94	0.5	0.3	0.13
EC	SUM	16	0.84	0.62	0.43	-25.73	42.07	-0.22	0.35	0.13	1486.11	-15.48	-0.35	1537.8	51.17	0.57	0.42	0.18
EC	FAL	14	0.74	0.6	0.83	-17.75	29.49	-0.13	0.22	0.05	-2.64	-9.44	-0.22	32.02	32.26	0.36	0.26	0.69
EC	ALL	59	0.64	0.66	0.25	4.53	47.36	0.03	0.3	0.13	437.86	15.11	0.05	463.88	47.66	0.47	0.36	0.06
NACL	WIN	15	0.41	0.09	0.03	-78.82	78.85	-0.32	0.32	0.06	-66.18	-108.14	-3.72	66.32	108.27	3.72	0.41	0
NACL	SPR	12	0.1	0.06	0.38	-40.52	57.7	-0.04	0.06	0.01	0.26	-24.51	-0.68	59.21	63.24	0.97	0.09	0.15
NACL	SUM	15	0.05	0.02	0.5	-51.61	52	-0.02	0.02	0	-48.66	-69.68	-1.07	48.9	69.91	1.07	0.03	0.25
NACL	FAL	15	0.04	0.05	0.86	5.47	37.38	0	0.02	0	10.9	-0.11	0.05	41.21	36.49	0.37	0.03	0.75
NACL	ALL	57	0.15	0.05	0.48	-65	70.64	-0.1	0.11	0.04	-27.3	-51.98	-1.86	53.63	69.81	2.02	0.21	0.23
NH4	WIN	15	1.16	0.92	0.94	-20.81	28.24	-0.24	0.33	0.16	-3.75	-12	-0.26	30.76	30.44	0.36	0.47	0.88
NH4	SPR	11	0.82	0.81	0.64	-1.16	41.48	-0.01	0.34	0.26	65.83	19.83	-0.01	86.32	46.16	0.42	0.51	0.41
NH4	SUM	14	1.23	0.98	0.94	-20.44	36.13	-0.25	0.45	0.4	63.31	8.74	-0.26	92.4	43.84	0.45	0.68	0.88
NH4	FAL	15	0.45	0.55	0.78	22.19	48.7	0.1	0.22	0.08	95.19	41.24	0.22	103.46	51.26	0.49	0.3	0.61
NH4	ALL	55	0.92	0.81	0.89	-11.39	36.05	-0.1	0.33	0.25	54.22	14.16	-0.13	77.39	42.67	0.41	0.51	0.79
NO3	WIN	15	2.77	1.99	0.92	-28.2	32.25	-0.78	0.89	0.51	-26.9	-35.67	-0.39	32.96	41.1	0.45	1.06	0.84
NO3	SPR	12	1.44	1.22	0.52	-14.72	59.55	-0.21	0.86	1.73	12.41	-25.22	-0.17	75.91	60.95	0.7	1.33	0.27
NO3	SUM	14	0.61	0.14	0.91	-76.31	76.31	-0.46	0.46	0.11	-78	-129.45	-3.22	78	129.45	3.22	0.57	0.83
NO3	FAL	15	0.77	0.49	0.76	-36.1	43.95	-0.28	0.34	0.1	-34.65	-63.38	-0.56	53.66	76.28	0.69	0.42	0.58
NO3	ALL	56	1.41	0.96	0.84	-31.58	44.68	-0.44	0.63	0.61	-33.33	-64.3	-0.46	58.97	76.87	0.65	0.9	0.71
OC	WIN	15	1.05	3.13	0.7	196.91	196.91	2.07	2.07	0.71	211.58	98.09	1.97	211.58	98.09	1.97	2.24	0.49
OC	SPR	14	0.93	1.93	0.52	107.84	109.04	1	1.01	0.4	138.24	70.97	1.08	139.15	71.9	1.09	1.18	0.27
OC	SUM	15	1.92	1.75	0.8	-9.09	25.12	-0.17	0.48	0.33	-0.88	-6.03	-0.1	27	27.57	0.28	0.6	0.63
OC	FAL	14	1.3	1.58	0.87	21.55	31.33	0.28	0.41	0.11	40.38	27.79	0.22	46.84	34.85	0.31	0.43	0.75
OC	ALL	58	1.31	2.11	0.28	61.25	76.81	0.8	1	1.13	97.61	47.65	0.61	106.59	58.27	0.77	1.33	0.08
PM-2.5	WIN	15	11.65	10.23	0.85	-12.12	19.95	-1.41	2.32	5.56	-8.86	-12.36	-0.14	21.37	23.33	0.23	2.75	0.72
PM-2.5	SPR	12	7.23	7.6	0.65	5.2	37.86	0.38	2.74	11.23	31.04	17.69	0.05	49.69	40.9	0.38	3.37	0.42
PM-2.5	SUM	16	15.53	8.87	0.64	-42.88	49.13	-6.66	7.63	54.6	354.89	-32.4	-0.75	425.27	64.63	0.86	9.95	0.41
PM-2.5	FAL	15	7.22	6.17	0.8	-14.56	18.94	-1.05	1.37	3.11	-10.96	-14.08	-0.17	17.5	19.94	0.22	2.05	0.64
PM-2.5	ALL	58	10.66	8.26	0.67	-22.48	34.01	-2.4	3.63	26.95	99.2	-12.12	-0.29	137.65	37.48	0.44	5.72	0.45
SO4	WIN	15	1.72	1.06	0.85	-38.56	39.37	-0.66	0.68	0.31	-32.76	-43	-0.63	34.84	44.95	0.64	0.87	0.72
SO4	SPR	12	1.37	1.2	0.85	-12.21	26.2	-0.17	0.36	0.22	43.18	1.01	-0.14	73.2	36.17	0.3	0.49	0.71
SO4	SUM	15	3.61	3.17	0.93	-11.95	24.02	-0.43	0.87	1.48	216.59	1.93	-0.14	244.75	34.68	0.27	1.29	0.87
SO4	FAL	15	1.48	1.31	0.96	-11.59	25.11	-0.17	0.37	0.35	4.92	-0.05	-0.13	26.71	26.12	0.28	0.62	0.91
SO4	ALL	57	2.08	1.71	0.93	-17.71	27.87	-0.37	0.58	0.65	58.76	-10.61	-0.22	96.01	35.44	0.34	0.89	0.87

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 360310003																		
EC	WIN	15	0.12	0.2	0.72	70.67	74.62	0.08	0.09	0.01	82.63	52.45	0.71	84.23	54.15	0.75	0.13	0.52
EC	SPR	15	0.09	0.1	0.74	9.77	38.44	0.01	0.04	0	43.04	10.34	0.1	70.68	50.04	0.38	0.05	0.55
EC	SUM	15	0.18	0.11	0.52	-41.45	49.6	-0.07	0.09	0.01	-32.59	-49.18	-0.71	47.63	61.2	0.85	0.13	0.27
EC	FAL	15	0.11	0.13	0.39	15.53	45.19	0.02	0.05	0	56.75	21.16	0.16	78.18	45.37	0.45	0.06	0.15
EC	ALL	60	0.12	0.13	0.45	6.99	52.43	0.01	0.07	0.01	37.45	8.69	0.07	70.18	52.69	0.52	0.1	0.2
NACL	WIN	14	0.08	0.04	0.04	-48.43	71.03	-0.04	0.06	0.02	9.61	-6.77	-0.94	44.03	46.94	1.38	0.16	0
NACL	SPR	11	0.05	0.07	0.07	35.74	112.22	0.02	0.06	0.01	75.65	-10.08	0.36	126.51	65.2	1.12	0.12	0.01
NACL	SUM	12	0.04	0.01	0.04	-63.84	70.52	-0.03	0.03	0	-13.16	-53.7	-1.77	76.58	86.08	1.95	0.06	0
NACL	FAL	15	0.04	0.03	0.3	-23.48	76.93	-0.01	0.03	0	637.79	-26.77	-0.31	705.62	79.92	1.01	0.05	0.09
NACL	ALL	52	0.05	0.04	0.03	-28.14	80.79	-0.02	0.04	0.01	199.53	-24.07	-0.39	259.83	69.35	1.12	0.1	0
NH4	WIN	15	0.38	0.49	0.87	29.72	42.35	0.11	0.16	0.03	107	36.58	0.3	115.45	46	0.42	0.22	0.76
NH4	SPR	11	0.29	0.36	0.77	25.25	32.63	0.07	0.09	0.01	62.48	30.28	0.25	68.7	37.06	0.33	0.12	0.59
NH4	SUM	13	0.25	0.43	0.87	69.29	82.59	0.18	0.21	0.07	287.76	84.11	0.69	290.45	87.05	0.83	0.31	0.76
NH4	FAL	14	0.21	0.37	0.67	73.52	82.37	0.16	0.17	0.03	790	77.2	0.74	794.2	81.8	0.82	0.24	0.45
NH4	ALL	53	0.29	0.42	0.83	45.95	56.88	0.13	0.16	0.04	322.52	57.66	0.46	327.96	63.67	0.57	0.23	0.69
NO3	WIN	15	0.48	0.9	0.69	89.9	118.37	0.43	0.56	0.74	90.34	24.1	0.9	128.16	79.4	1.18	0.96	0.47
NO3	SPR	12	0.27	0.27	0.15	-2.41	91.73	-0.01	0.25	0.08	22.33	-36.2	-0.02	106.86	105.34	0.94	0.28	0.02
NO3	SUM	12	0.08	0.05	0.95	-43.11	49.54	-0.04	0.04	0	-57.43	-91.95	-0.76	59.52	93.92	0.87	0.05	0.91
NO3	FAL	15	0.21	0.14	0.28	-31.9	75.84	-0.07	0.16	0.04	-19.18	-52.34	-0.47	70.23	86.27	1.11	0.21	0.08
NO3	ALL	54	0.27	0.36	0.69	33.69	98.43	0.09	0.27	0.28	11.97	-36.32	0.34	92.08	90.3	0.98	0.53	0.47
OC	WIN	12	0.47	1.4	0.79	198.16	198.16	0.93	0.93	0.36	348.31	106.89	1.98	348.31	106.89	1.98	1.11	0.62
OC	SPR	13	0.3	0.64	0.69	110.36	121.23	0.34	0.37	0.07	260.01	82.67	1.1	269.08	95.53	1.21	0.42	0.47
OC	SUM	15	1.71	1	0.45	-41.39	52.02	-0.71	0.89	3.91	-23.57	-35.21	-0.71	36.6	46.52	0.89	2.1	0.2
OC	FAL	14	0.42	0.75	0.69	78.37	78.82	0.33	0.33	0.05	301.37	74.04	0.78	301.58	74.26	0.79	0.4	0.48
OC	ALL	54	0.76	0.94	0.36	23.12	82.53	0.18	0.63	1.55	211.58	53.07	0.23	230.54	78.93	0.83	1.26	0.13
PM-2.5	WIN	15	4.03	4.51	0.68	11.95	42.94	0.48	1.73	5.8	27.92	9.16	0.12	53.23	40.5	0.43	2.46	0.46
PM-2.5	SPR	12	3.49	2.99	0.48	-14.27	26.58	-0.5	0.93	1.37	-2.38	-11.68	-0.17	31.67	32.13	0.31	1.27	0.23
PM-2.5	SUM	15	8.49	3.88	0.51	-54.28	59.22	-4.61	5.03	24.19	-54.84	-81.91	-1.19	57.94	84.7	1.3	6.74	0.26
PM-2.5	FAL	15	4.41	3.17	0.71	-28.06	40.52	-1.24	1.79	4.82	-7.38	-18.18	-0.39	39.3	42.61	0.56	2.52	0.5
PM-2.5	ALL	57	5.19	3.67	0.48	-29.22	47.09	-1.52	2.44	13.25	-9.53	-26.39	-0.41	46.27	50.92	0.67	3.94	0.23
SO4	WIN	15	1.13	0.81	0.91	-28.26	33.01	-0.32	0.37	0.12	-15.98	-22.75	-0.39	30.48	34.97	0.46	0.47	0.83
SO4	SPR	12	0.92	1.02	0.39	10.6	34.55	0.1	0.32	0.16	41.9	14.22	0.11	61.36	37.94	0.35	0.41	0.15
SO4	SUM	14	1.28	1.49	0.79	16.11	52.03	0.21	0.67	1.35	374.19	16.91	0.16	398.36	46.55	0.52	1.18	0.62
SO4	FAL	15	0.95	1.14	0.91	19.66	30.58	0.19	0.29	0.14	50.08	28.57	0.2	58.79	38.19	0.31	0.42	0.84
SO4	ALL	56	1.08	1.11	0.78	3.44	38.38	0.04	0.41	0.49	111.66	8.83	0.03	136.65	39.37	0.38	0.7	0.61

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 360551007																		
EC	WIN	23	0.46	0.8	0.81	75.08	79.96	0.34	0.37	0.05	110.89	65.79	0.75	112.12	67.1	0.8	0.41	0.65
EC	SPR	29	0.3	0.5	0.52	64.34	69.83	0.2	0.21	0.04	85.64	48.1	0.64	89.45	52.84	0.7	0.27	0.27
EC	SUM	26	0.53	0.5	0.72	-5.39	23.5	-0.03	0.12	0.02	2.55	-1.24	-0.06	24.08	24.08	0.25	0.15	0.52
EC	FAL	28	0.56	0.61	0.72	8.75	34.54	0.05	0.19	0.05	40.08	20.27	0.09	57.02	40.03	0.35	0.22	0.52
EC	ALL	106	0.46	0.59	0.63	29.15	47.62	0.13	0.22	0.06	58.7	32.49	0.29	69.77	45.5	0.48	0.28	0.4
NACL	WIN	25	0.15	0.1	0.14	-35.06	60.74	-0.05	0.09	0.03	19.52	-4.66	-0.54	60	54.54	0.94	0.17	0.02
NACL	SPR	29	0.05	0.06	0.19	29.69	70.49	0.01	0.04	0	73.88	23.97	0.3	102.94	62.83	0.7	0.04	0.03
NACL	SUM	29	0.04	0.02	0.05	-47.69	61.27	-0.02	0.02	0	-13.61	-63.27	-0.91	82.37	74.83	1.17	0.03	0
NACL	FAL	27	0.06	0.06	0.33	-2.51	70.25	0	0.04	0	20.34	-9.92	-0.03	68.6	61.46	0.72	0.07	0.11
NACL	ALL	110	0.07	0.06	0.31	-18.07	64.6	-0.01	0.05	0.01	25.32	-13.86	-0.22	79.33	63.78	0.79	0.09	0.09
NH4	WIN	25	1.16	1	0.77	-14.01	36.63	-0.16	0.43	0.4	15.88	3.74	-0.16	42.42	36.98	0.43	0.65	0.59
NH4	SPR	28	0.65	1	0.45	53.83	77.32	0.35	0.5	0.49	191.15	43.59	0.54	209.35	65.32	0.77	0.78	0.2
NH4	SUM	29	0.71	0.81	0.65	14.98	49.99	0.11	0.35	0.36	113.66	37.17	0.15	126.94	56.59	0.5	0.61	0.42
NH4	FAL	25	0.59	0.85	0.85	45.39	57.46	0.27	0.34	0.11	189.87	63.01	0.45	194.96	68.68	0.57	0.42	0.71
NH4	ALL	107	0.77	0.91	0.62	18.73	52.63	0.14	0.41	0.38	128.9	37.08	0.19	144.65	57.12	0.53	0.63	0.39
NO3	WIN	25	2.52	2.1	0.72	-16.45	37.04	-0.41	0.93	1.77	-2.56	-12.99	-0.2	38.07	39.32	0.44	1.39	0.51
NO3	SPR	29	1	1.29	0.47	29.37	72.67	0.29	0.73	1.69	71.7	-1.62	0.29	116.8	64.42	0.73	1.33	0.22
NO3	SUM	29	0.39	0.19	0.36	-50.87	70.19	-0.2	0.28	0.13	-12.02	-75.94	-1.04	98.18	94.51	1.43	0.42	0.13
NO3	FAL	27	0.78	0.88	0.7	12.89	57.33	0.1	0.45	0.4	34.87	2.03	0.13	73.78	57.38	0.57	0.64	0.5
NO3	ALL	110	1.13	1.09	0.7	-3.97	51.83	-0.04	0.59	1.05	23.71	-22.9	-0.04	83.44	64.92	0.54	1.03	0.48
OC	WIN	23	1.24	3.95	0.83	217.86	217.86	2.71	2.71	1.09	285.27	110.67	2.18	285.27	110.67	2.18	2.9	0.69
OC	SPR	29	0.77	2.01	0.47	161.21	163.18	1.24	1.25	0.75	221.34	87.04	1.61	222.62	88.45	1.63	1.51	0.23
OC	SUM	26	1.72	1.68	0.74	-2.09	24.22	-0.04	0.42	0.3	4.61	0.31	-0.02	24.38	24	0.25	0.55	0.54
OC	FAL	28	1.14	2.07	0.72	82.56	85.16	0.94	0.97	0.52	157.91	67.27	0.83	159.01	68.46	0.85	1.18	0.52
OC	ALL	106	1.2	2.37	0.49	97.01	107.23	1.17	1.29	1.54	165.3	65.67	0.97	170.79	72.18	1.07	1.7	0.24
PM-2.5	WIN	25	10.38	11.59	0.84	11.65	26.61	1.21	2.76	11.25	24.36	17.85	0.12	31.56	26.16	0.27	3.56	0.71
PM-2.5	SPR	28	6.47	8.52	0.62	31.61	43.11	2.05	2.79	12.38	37.72	22.38	0.32	47.28	33.82	0.43	4.07	0.39
PM-2.5	SUM	28	11.28	7.55	0.47	-33.01	40.1	-3.72	4.52	26.85	-23.82	-39	-0.49	42	47.39	0.6	6.38	0.22
PM-2.5	FAL	27	7.94	8.25	0.88	3.89	27.29	0.31	2.17	6.69	21.26	12.45	0.04	36.94	30.89	0.27	2.6	0.77
PM-2.5	ALL	108	8.99	8.91	0.63	-0.86	34.23	-0.08	3.08	19.48	14.56	2.94	-0.01	39.68	34.83	0.35	4.41	0.4
SO4	WIN	25	1.61	1.17	0.84	-27.42	32.23	-0.44	0.52	0.28	-21.6	-27.68	-0.38	28.01	33.58	0.44	0.69	0.7
SO4	SPR	29	1.42	1.73	0.73	22.03	48.19	0.31	0.68	0.92	30.51	9.58	0.22	55.84	39.93	0.48	1.01	0.53
SO4	SUM	29	2.37	2.25	0.68	-5.18	35.48	-0.12	0.84	2.58	21.86	-5.35	-0.05	52.03	34.5	0.37	1.61	0.46
SO4	FAL	27	1.61	1.66	0.94	3.55	24.49	0.06	0.39	0.31	18.99	11.35	0.04	32.89	28.24	0.24	0.56	0.88
SO4	ALL	110	1.76	1.72	0.75	-2.06	35.04	-0.04	0.62	1.14	13.56	-2.39	-0.02	42.88	34.19	0.36	1.07	0.56

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 360610134																		
EC	WIN	20	1.28	3.74	0.76	191.37	191.37	2.45	2.45	1.2	210.86	97.79	1.91	210.86	97.79	1.91	2.69	0.57
EC	SPR	26	1.07	2.17	0.51	103.79	103.79	1.11	1.11	0.68	121.9	64.25	1.04	121.9	64.25	1.04	1.38	0.26
EC	SUM	26	1.47	2.32	0.56	57.99	61.08	0.85	0.9	0.78	81.53	46.31	0.58	83.54	48.51	0.61	1.23	0.31
EC	FAL	18	1.47	3.21	0.89	118.72	118.72	1.74	1.74	1.15	126.2	73.47	1.19	126.2	73.47	1.19	2.04	0.78
EC	ALL	90	1.31	2.77	0.62	111.35	112.35	1.46	1.47	1.3	130.86	68.36	1.11	131.44	69	1.12	1.85	0.38
NACL	WIN	26	0.2	0.34	0.09	71.47	143.1	0.14	0.28	0.14	252.08	82.5	0.71	267.01	105.49	1.43	0.41	0.01
NACL	SPR	31	0.23	0.53	0.98	127.41	134.84	0.3	0.31	0.87	141.62	59.89	1.27	146.03	65.14	1.35	0.98	0.95
NACL	SUM	30	0.12	0.24	0.19	105.06	134.45	0.12	0.16	0.13	112.22	23.35	1.05	136.37	53.43	1.34	0.38	0.03
NACL	FAL	22	0.1	0.22	0.71	123.35	131.28	0.12	0.13	0.03	120.57	56.92	1.23	128.96	66.7	1.31	0.22	0.51
NACL	ALL	109	0.17	0.34	0.8	106.6	136.69	0.18	0.23	0.33	155.63	54.63	1.07	168.78	71.86	1.37	0.6	0.63
NH4	WIN	26	1.46	1.53	0.79	4.53	28.69	0.07	0.42	0.26	20.51	11.51	0.05	37.32	30.94	0.29	0.52	0.63
NH4	SPR	31	1.02	0.93	0.76	-8.74	32.78	-0.09	0.34	0.25	3.46	-7.77	-0.1	35.49	36.61	0.36	0.51	0.58
NH4	SUM	29	1.1	0.78	0.67	-28.64	41.82	-0.31	0.46	0.48	3.34	-16.52	-0.4	52.15	48.48	0.59	0.76	0.45
NH4	FAL	22	1.01	1.13	0.83	12.02	34.88	0.12	0.35	0.16	56.27	24.55	0.12	70.08	40.66	0.35	0.41	0.69
NH4	ALL	108	1.15	1.08	0.73	-6.06	34.23	-0.07	0.39	0.32	18.29	1.1	-0.06	47.45	39.26	0.36	0.57	0.54
NO3	WIN	26	2.72	2.84	0.74	4.43	28.64	0.12	0.78	1.42	14.32	2.18	0.04	37.48	31.93	0.29	1.2	0.54
NO3	SPR	31	1.61	1.2	0.68	-25.66	51.22	-0.41	0.83	1.79	-0.13	-19.43	-0.35	51.22	51.07	0.69	1.4	0.46
NO3	SUM	30	0.91	0.43	0.46	-52.74	63.31	-0.48	0.57	0.62	-44.55	-74.45	-1.12	58.76	85.31	1.34	0.92	0.22
NO3	FAL	22	1.55	1.59	0.9	2.09	42.81	0.03	0.67	0.64	-3.34	-22.31	0.02	51.4	56.57	0.43	0.8	0.81
NO3	ALL	109	1.67	1.46	0.74	-12.81	42.68	-0.21	0.71	1.22	-9.56	-30	-0.15	50.05	57.04	0.49	1.12	0.55
OC	WIN	20	2.56	10.36	0.78	304.86	304.86	7.8	7.8	12.15	309.68	118.13	3.05	309.68	118.13	3.05	8.54	0.61
OC	SPR	26	2.2	4.42	0.48	101.29	103.04	2.22	2.26	2.65	125.15	64.29	1.01	126.2	65.4	1.03	2.76	0.23
OC	SUM	26	2.76	4.23	0.66	53.64	55.67	1.48	1.53	1.51	60.7	40.83	0.54	62.74	42.97	0.56	1.92	0.43
OC	FAL	18	2.76	6.12	0.83	121.98	121.98	3.36	3.36	3.83	129.92	73.99	1.22	129.92	73.99	1.22	3.89	0.69
OC	ALL	90	2.55	6.03	0.5	136.27	137.34	3.48	3.5	10.43	148.49	71.42	1.36	149.38	72.36	1.37	4.74	0.25
PM-2.5	WIN	26	14.22	27.89	0.84	96.17	96.17	13.67	13.67	44.38	104.7	64.45	0.96	104.7	64.45	0.96	15.21	0.7
PM-2.5	SPR	31	11.6	14.82	0.58	27.83	44.24	3.23	5.13	26.47	40.62	24.97	0.28	52.83	39.66	0.44	6.07	0.33
PM-2.5	SUM	30	14.39	14.15	0.66	-1.68	22.02	-0.24	3.17	23.76	6.33	0.32	-0.02	24.24	21.55	0.22	4.88	0.43
PM-2.5	FAL	22	12.39	19.03	0.78	53.55	56.99	6.63	7.06	31.44	74.03	44.96	0.54	76.4	47.51	0.57	8.69	0.6
PM-2.5	ALL	109	13.15	18.6	0.6	41.46	53.37	5.45	7.02	57.73	53.21	31.64	0.41	62.09	42.17	0.53	9.35	0.36
SO4	WIN	26	2.4	2.3	0.63	-4.29	28.13	-0.1	0.68	0.96	7.1	1.55	-0.04	29.42	29.07	0.29	0.99	0.4
SO4	SPR	31	2.15	2.15	0.81	0.01	21.42	0	0.46	0.41	3.99	0.04	0	23.02	21.85	0.21	0.64	0.66
SO4	SUM	30	3.02	2.35	0.77	-22.14	32.31	-0.67	0.98	1.92	-9.93	-17.86	-0.28	30.78	33.97	0.42	1.54	0.59
SO4	FAL	22	2.39	2.28	0.81	-4.4	22.78	-0.1	0.54	0.61	11.65	3.46	-0.05	31.1	26.52	0.24	0.79	0.66
SO4	ALL	109	2.5	2.27	0.75	-9.2	26.85	-0.23	0.67	1.07	2.45	-3.84	-0.1	28.31	27.85	0.3	1.06	0.56

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 360810124																		
EC	WIN	29	0.99	2.93	0.77	195.73	195.73	1.94	1.94	0.94	214.96	97.8	1.96	214.96	97.8	1.96	2.17	0.59
EC	SPR	29	0.59	1.45	0.69	144.95	144.95	0.86	0.86	0.28	164.36	83.7	1.45	164.36	83.7	1.45	1.01	0.47
EC	SUM	31	0.93	1.67	0.66	79.9	88.2	0.74	0.82	0.31	116.39	60.41	0.8	120.5	65.34	0.88	0.93	0.44
EC	FAL	29	0.93	2.23	0.81	138.73	138.73	1.29	1.29	0.49	155.24	81.92	1.39	155.24	81.92	1.39	1.47	0.65
EC	ALL	118	0.86	2.06	0.71	139.24	141.59	1.2	1.22	0.72	161.95	80.61	1.39	163.03	81.91	1.42	1.47	0.51
NACL	WIN	26	0.15	0.24	0.46	58.93	87.81	0.09	0.13	0.02	137.14	51.2	0.59	151.55	71.38	0.88	0.17	0.21
NACL	SPR	30	0.24	0.46	0.97	89.81	104.46	0.22	0.25	0.76	94.98	33.35	0.9	108.57	51.08	1.04	0.9	0.95
NACL	SUM	29	0.1	0.2	0.14	99.89	150.26	0.1	0.15	0.1	144.35	30.9	1	168.12	60.77	1.5	0.33	0.02
NACL	FAL	29	0.12	0.19	0.79	61.62	80.83	0.07	0.1	0.02	70.11	35.64	0.62	84.23	52.78	0.81	0.17	0.63
NACL	ALL	114	0.15	0.28	0.91	79.16	103.83	0.12	0.16	0.24	110.82	37.38	0.79	127.33	58.61	1.04	0.5	0.83
NH4	WIN	27	1.38	1.46	0.57	5.81	31.66	0.08	0.44	0.49	113.84	10.47	0.06	132.65	32.22	0.32	0.7	0.33
NH4	SPR	30	0.83	0.85	0.87	1.95	28.51	0.02	0.24	0.09	13.55	-0.93	0.02	42.37	37.52	0.29	0.29	0.75
NH4	SUM	29	0.85	0.71	0.73	-16.07	36.46	-0.14	0.31	0.26	23.53	-2.1	-0.19	61.79	48.41	0.43	0.52	0.54
NH4	FAL	29	0.77	0.92	0.85	18.73	36.33	0.14	0.28	0.12	83.41	33.75	0.19	89.92	41.31	0.36	0.38	0.72
NH4	ALL	115	0.95	0.98	0.76	2.63	32.98	0.03	0.31	0.24	57.23	10.2	0.03	80.45	39.98	0.33	0.49	0.57
NO3	WIN	27	2.53	2.79	0.52	10.4	39.66	0.26	1	2.54	91.14	7.71	0.1	117.6	43.47	0.4	1.62	0.27
NO3	SPR	30	1.2	1.03	0.67	-14.17	50.09	-0.17	0.6	0.8	5.67	-18.97	-0.17	58.8	56.53	0.58	0.91	0.45
NO3	SUM	30	0.67	0.32	0.43	-51.39	64.27	-0.34	0.43	0.37	-41.26	-74.55	-1.06	61.37	87.03	1.32	0.7	0.18
NO3	FAL	29	1.24	1.16	0.85	-6.17	40.22	-0.08	0.5	0.45	-7.89	-28.32	-0.07	49.7	53.25	0.43	0.68	0.73
NO3	ALL	116	1.38	1.29	0.73	-6.56	45.2	-0.09	0.62	1.06	10.04	-29.47	-0.07	70.88	60.56	0.48	1.03	0.53
OC	WIN	29	1.66	8.23	0.79	396.46	396.46	6.57	6.57	7.96	438.16	133.16	3.96	438.16	133.16	3.96	7.15	0.63
OC	SPR	29	1.21	3.25	0.67	169.49	169.49	2.04	2.04	1.27	226.42	97.23	1.69	226.42	97.23	1.69	2.33	0.45
OC	SUM	31	2.06	3.4	0.8	64.71	65.6	1.33	1.35	0.75	82.81	51.23	0.65	83.95	52.43	0.66	1.59	0.64
OC	FAL	29	1.75	4.31	0.83	146.74	146.74	2.56	2.56	1.88	179.84	88.77	1.47	179.84	88.77	1.47	2.91	0.69
OC	ALL	118	1.68	4.77	0.52	184.95	185.24	3.1	3.1	7.05	229.28	91.9	1.85	229.58	92.21	1.85	4.08	0.28
PM-2.5	WIN	26	12.6	23.4	0.91	85.75	85.75	10.8	10.8	27.76	92.3	60.45	0.86	92.3	60.45	0.86	12.02	0.82
PM-2.5	SPR	30	8.72	11.62	0.71	33.3	43.54	2.9	3.8	14.46	45.11	28.38	0.33	54.23	38.99	0.44	4.78	0.5
PM-2.5	SUM	29	12.06	11.15	0.78	-7.47	23.04	-0.9	2.78	14.7	3.09	-3.28	-0.08	28.22	27.68	0.25	3.94	0.61
PM-2.5	FAL	28	10.25	14.84	0.72	44.72	52.87	4.59	5.42	22.92	56.99	39.27	0.45	61.55	45.76	0.53	6.63	0.52
PM-2.5	ALL	113	10.85	15.01	0.7	38.36	51.16	4.16	5.55	36.87	48.13	30.33	0.38	58.13	42.7	0.51	7.36	0.48
SO4	WIN	27	2.15	2	0.55	-6.97	24.08	-0.15	0.52	0.61	29.44	-5.17	-0.07	55.54	25.84	0.26	0.79	0.31
SO4	SPR	30	1.99	1.98	0.86	-0.4	20.45	-0.01	0.41	0.29	2.09	-2.7	0	23.62	23.16	0.21	0.53	0.73
SO4	SUM	31	2.54	2.2	0.72	-13.42	34.14	-0.34	0.87	1.9	177.72	-6.52	-0.16	211.68	36.87	0.39	1.42	0.52
SO4	FAL	29	1.89	1.93	0.86	2.22	20.34	0.04	0.38	0.3	12.65	7.18	0.02	25.4	21.74	0.2	0.55	0.74
SO4	ALL	117	2.15	2.03	0.75	-5.43	25.56	-0.12	0.55	0.82	57.55	-1.83	-0.06	81.26	27.06	0.27	0.91	0.56

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 361010003																		
EC	WIN	19	0.21	0.3	0.8	39.93	44.43	0.09	0.1	0.01	52.04	35.62	0.4	53.95	37.62	0.44	0.12	0.64
EC	SPR	25	0.16	0.19	0.78	16.57	37.95	0.03	0.06	0	29.85	16.17	0.17	49.35	39.41	0.38	0.07	0.6
EC	SUM	27	0.25	0.18	0.64	-28.82	36.64	-0.07	0.09	0.01	-15.68	-26.9	-0.4	37.53	41.57	0.51	0.12	0.4
EC	FAL	22	0.24	0.23	0.85	-6.21	26.61	-0.01	0.06	0.01	9.38	2.46	-0.07	32.77	29.94	0.28	0.08	0.73
EC	ALL	93	0.22	0.22	0.67	0.22	35.85	0	0.08	0.01	16.32	4.39	0	42.94	37.43	0.36	0.1	0.45
NACL	WIN	28	0.04	0.06	0.57	41.49	67.25	0.02	0.03	0	81.54	37.99	0.41	98.05	57.45	0.67	0.03	0.33
NACL	SPR	29	0.04	0.06	0.32	48.78	74.95	0.02	0.03	0	110.35	38.93	0.49	130.1	63.77	0.75	0.04	0.1
NACL	SUM	28	0.04	0.02	0.56	-56.29	60.75	-0.02	0.03	0	-28.63	-64.99	-1.29	63.7	79.48	1.39	0.04	0.32
NACL	FAL	25	0.04	0.06	0.66	53.59	86.31	0.02	0.03	0	303.98	15.15	0.54	335.73	54.37	0.86	0.06	0.43
NACL	ALL	110	0.04	0.05	0.44	19.78	71.69	0.01	0.03	0	111.65	6.84	0.2	151.77	64.02	0.72	0.04	0.19
NH4	WIN	29	0.8	0.79	0.76	-0.79	28.39	-0.01	0.23	0.1	39.61	11.14	-0.01	59.65	35.16	0.29	0.31	0.57
NH4	SPR	26	0.58	0.88	0.22	52.21	71.26	0.3	0.41	0.4	73.75	35.41	0.52	84.64	48.79	0.71	0.7	0.05
NH4	SUM	29	0.66	0.75	0.82	13.81	42.31	0.09	0.28	0.12	77.58	34.24	0.14	90.69	49.85	0.42	0.36	0.68
NH4	FAL	26	0.43	0.71	0.84	64.63	79.49	0.28	0.34	0.09	422.54	85.12	0.65	425.65	88.54	0.79	0.42	0.7
NH4	ALL	110	0.62	0.78	0.63	25.65	50.06	0.16	0.31	0.19	148.2	40.45	0.26	160.25	54.87	0.5	0.46	0.4
NO3	WIN	29	1.32	1.54	0.24	16.21	59.59	0.21	0.79	0.95	71.04	18.67	0.16	100.49	60.51	0.6	1	0.06
NO3	SPR	29	0.67	1.13	0.33	68.78	99.58	0.46	0.67	1.82	116.13	35.57	0.69	135.56	59.8	1	1.43	0.11
NO3	SUM	29	0.2	0.14	0.27	-30	66.96	-0.06	0.13	0.02	-13.81	-46.32	-0.43	67.63	82.67	0.96	0.17	0.07
NO3	FAL	28	0.36	0.63	0.45	75.72	105.67	0.27	0.38	0.31	94.02	21.67	0.76	126.6	65.04	1.06	0.62	0.2
NO3	ALL	115	0.64	0.86	0.49	34.71	77.04	0.22	0.49	0.81	66.61	7.28	0.35	107.41	67.03	0.77	0.93	0.24
OC	WIN	19	0.81	1.41	0.71	74.25	82.73	0.6	0.67	0.22	160.23	69.24	0.74	163.66	73.19	0.83	0.76	0.5
OC	SPR	24	0.52	0.91	0.63	76.04	84.75	0.39	0.44	0.16	116.1	58.79	0.76	121.43	64.78	0.85	0.56	0.4
OC	SUM	27	1.31	1.22	0.68	-7.28	31.57	-0.1	0.41	0.31	-2.46	-9.3	-0.08	30.69	31.63	0.34	0.57	0.46
OC	FAL	22	0.74	1.05	0.55	41.71	62.89	0.31	0.46	0.45	68.75	35.49	0.42	81.92	51.47	0.63	0.74	0.31
OC	ALL	92	0.86	1.14	0.6	31.54	56.18	0.27	0.49	0.35	79.1	35.39	0.32	94.08	53.6	0.56	0.65	0.36
PM-2.5	WIN	29	9.44	6.76	0.27	-28.41	39.15	-2.68	3.7	123.9	-9.17	-15.03	-0.4	25.08	29.04	0.55	11.45	0.07
PM-2.5	SPR	28	5.55	5.63	0.48	1.4	34.54	0.08	1.92	9.46	4.41	-4.69	0.01	34.72	31.64	0.35	3.08	0.23
PM-2.5	SUM	29	10.25	5.66	0.8	-44.76	45.09	-4.59	4.62	11.73	-41.63	-56.94	-0.81	42.33	57.61	0.82	5.73	0.64
PM-2.5	FAL	28	6.3	5.24	0.9	-16.81	28.24	-1.06	1.78	7.75	-2.5	-8.95	-0.2	30.33	31.3	0.34	2.98	0.8
PM-2.5	ALL	114	7.92	5.83	0.46	-26.4	38.18	-2.09	3.02	41.82	-12.45	-21.66	-0.36	33.12	37.5	0.52	6.8	0.21
SO4	WIN	29	1.76	1.05	0.84	-40.24	40.87	-0.71	0.72	0.2	-38.5	-50.63	-0.67	40.48	52.37	0.68	0.83	0.71
SO4	SPR	29	1.45	1.43	0.58	-1.81	37.89	-0.03	0.55	0.58	149.99	-3.52	-0.02	183.32	39.31	0.39	0.76	0.33
SO4	SUM	29	2.77	2.23	0.87	-19.54	31.71	-0.54	0.88	1.16	-11.96	-21.52	-0.24	34.88	38.26	0.39	1.2	0.75
SO4	FAL	28	1.73	1.53	0.92	-11.95	31.62	-0.21	0.55	1.14	11.19	3.1	-0.14	33.68	30.86	0.36	1.09	0.85
SO4	ALL	115	1.93	1.56	0.84	-19.26	34.96	-0.37	0.68	0.84	27.82	-18.33	-0.24	73.43	40.28	0.43	0.99	0.7

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 370210034																		
EC	WIN	15	0.48	0.46	0.74	-3.95	34.61	-0.02	0.17	0.05	22.86	11.79	-0.04	41.82	35.28	0.36	0.23	0.55
EC	SPR	15	0.41	0.41	0.41	0.27	47.07	0	0.19	0.05	22.97	7.78	0	54.25	45.28	0.47	0.22	0.17
EC	SUM	16	0.59	0.45	0.49	-23.25	25.47	-0.14	0.15	0.02	-20.39	-25.51	-0.3	23.27	28.22	0.33	0.2	0.24
EC	FAL	12	0.45	0.41	0.95	-9.71	32.74	-0.04	0.15	0.04	18.21	9.61	-0.11	37.68	33.16	0.36	0.21	0.9
EC	ALL	58	0.49	0.44	0.68	-10.55	33.94	-0.05	0.17	0.04	9.99	0.01	-0.12	39.06	35.48	0.38	0.21	0.47
NACL	WIN	14	0.04	0.09	0.7	136.32	157.43	0.05	0.06	0.01	1470.46	72.12	1.36	1485.9	90.47	1.57	0.12	0.49
NACL	SPR	14	0.09	0.1	0.1	12.55	87.67	0.01	0.07	0.01	75.67	25.28	0.13	110.26	79.54	0.88	0.09	0.01
NACL	SUM	15	0.06	0.05	0.15	-26.79	54.2	-0.02	0.03	0	0.31	-18.55	-0.37	49.86	55.13	0.74	0.05	0.02
NACL	FAL	14	0.03	0.05	0.13	46.48	75.74	0.01	0.02	0	91.53	33.83	0.46	109.75	56.41	0.76	0.03	0.02
NACL	ALL	57	0.05	0.07	0.29	26.45	87.61	0.01	0.05	0.01	402.31	27.35	0.26	432.11	70.12	0.88	0.08	0.09
NH4	WIN	14	0.61	0.58	0.81	-4.19	26.19	-0.03	0.16	0.04	13.26	4.31	-0.04	35.65	30.48	0.27	0.2	0.65
NH4	SPR	14	0.69	0.69	0.67	0.67	32.29	0	0.22	0.07	24.91	4.74	0.01	51.15	40.23	0.32	0.27	0.44
NH4	SUM	15	1.04	0.91	0.47	-12.28	26.34	-0.13	0.27	0.15	-2.36	-7.87	-0.14	24.52	26.19	0.3	0.41	0.22
NH4	FAL	15	0.38	0.56	0.79	48.9	59.4	0.18	0.22	0.03	87.29	49.88	0.49	92.98	57.12	0.59	0.25	0.62
NH4	ALL	58	0.68	0.69	0.7	1.42	32.52	0.01	0.22	0.09	31.18	13.05	0.01	51.34	38.61	0.33	0.3	0.49
NO3	WIN	14	0.56	0.69	0.32	23.05	72.54	0.13	0.41	0.23	49.72	11.96	0.23	87.4	66.46	0.73	0.5	0.11
NO3	SPR	14	0.44	0.31	0.22	-28.4	68.55	-0.12	0.3	0.13	-15.53	-53.63	-0.4	76.76	85.31	0.96	0.38	0.05
NO3	SUM	15	0.27	0.1	0.2	-64.42	67.35	-0.17	0.18	0.01	-63.62	-102.63	-1.81	66.34	105.09	1.89	0.21	0.04
NO3	FAL	15	0.31	0.32	0.3	1.69	65.28	0.01	0.2	0.06	34.05	-16.45	0.02	92.09	76.74	0.65	0.25	0.09
NO3	ALL	58	0.39	0.35	0.43	-10.79	69.05	-0.04	0.27	0.12	0.61	-40.85	-0.12	80.6	83.66	0.77	0.35	0.19
OC	WIN	15	1.77	1.75	0.6	-0.97	48.15	-0.02	0.85	1.23	42.36	21.56	-0.01	62.98	48.97	0.49	1.11	0.36
OC	SPR	15	1.51	1.8	0.67	18.73	43.3	0.28	0.66	0.49	58.41	27.23	0.19	76.18	48.76	0.43	0.76	0.45
OC	SUM	16	2.22	2.92	0.57	31.67	38.61	0.7	0.86	0.8	38.11	25.38	0.32	44.87	32.85	0.39	1.14	0.32
OC	FAL	12	1.24	1.6	0.73	29.08	45.58	0.36	0.57	0.46	77.45	35.5	0.29	87.22	46.92	0.46	0.77	0.53
OC	ALL	58	1.72	2.06	0.63	19.65	43.26	0.34	0.74	0.83	52.6	26.96	0.2	66.41	44.04	0.43	0.97	0.4
PM-2.5	WIN	14	8.05	6.12	0.61	-23.96	32.24	-1.93	2.6	11.09	-14.52	-20.47	-0.32	27.25	31.79	0.42	3.85	0.37
PM-2.5	SPR	14	9.59	6.86	0.65	-28.5	32.36	-2.73	3.1	9.65	-23.6	-32.15	-0.4	28.67	36.7	0.45	4.14	0.43
PM-2.5	SUM	15	16.69	9.04	0.68	-45.85	45.85	-7.65	7.65	8.12	-45.59	-60.76	-0.85	45.59	60.76	0.85	8.16	0.46
PM-2.5	FAL	15	7.23	5.81	0.91	-19.55	26.12	-1.41	1.89	5.33	-9.43	-13.41	-0.24	23.63	26.06	0.32	2.71	0.84
PM-2.5	ALL	58	10.44	6.97	0.77	-33.22	36.79	-3.47	3.84	14.8	-23.43	-31.88	-0.5	31.4	38.98	0.55	5.18	0.59
SO4	WIN	14	1.74	1.18	0.68	-32.08	39.77	-0.56	0.69	0.64	-16.18	-27.35	-0.47	38.43	43.87	0.59	0.98	0.46
SO4	SPR	14	2.36	2	0.68	-15	26.68	-0.35	0.63	0.76	-12.66	-19.43	-0.18	24.94	29.44	0.31	0.94	0.46
SO4	SUM	15	4.3	2.72	0.61	-36.68	36.68	-1.58	1.58	1.84	-33.3	-42.96	-0.58	33.3	42.96	0.58	2.08	0.37
SO4	FAL	15	1.59	1.48	0.81	-7.12	23.77	-0.11	0.38	0.28	-7.97	-12.78	-0.08	22.79	25.83	0.26	0.54	0.65
SO4	ALL	58	2.51	1.86	0.73	-26.16	32.82	-0.66	0.82	1.21	-17.64	-25.71	-0.35	29.8	35.49	0.44	1.28	0.54

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 370350004																		
EC	WIN	15	0.83	0.63	0.78	-24.28	39.72	-0.2	0.33	0.19	-1.89	-11.16	-0.32	36.72	37.37	0.52	0.48	0.61
EC	SPR	15	0.74	0.5	0.66	-32.6	37.48	-0.24	0.28	0.14	-21.62	-29.4	-0.48	29.56	36.18	0.56	0.44	0.43
EC	SUM	16	0.74	0.55	0.64	-25.94	26.61	-0.19	0.2	0.03	-22.28	-27.15	-0.35	23.05	27.9	0.36	0.26	0.41
EC	FAL	15	0.63	0.5	0.8	-20.33	32.67	-0.13	0.21	0.14	-0.41	-5.75	-0.26	24.31	26.35	0.41	0.4	0.64
EC	ALL	61	0.74	0.55	0.74	-25.95	34.23	-0.19	0.25	0.13	-11.73	-18.51	-0.35	28.32	31.88	0.46	0.4	0.55
NACL	WIN	15	0.06	0.09	0.59	41.01	99.6	0.03	0.06	0.01	158.2	29.47	0.41	189.26	73.35	1	0.12	0.35
NACL	SPR	15	0.1	0.16	0.55	55.12	78.42	0.06	0.08	0.01	72.07	27.14	0.55	95.75	60.03	0.78	0.13	0.31
NACL	SUM	16	0.06	0.05	0.6	-16.46	45.77	-0.01	0.03	0	-13.82	-25.55	-0.2	41.4	46.03	0.55	0.04	0.36
NACL	FAL	15	0.04	0.04	0.35	-1.68	38.1	0	0.02	0	17.52	4.97	-0.02	41.74	34.77	0.39	0.02	0.12
NACL	ALL	61	0.07	0.08	0.61	25.63	68.94	0.02	0.05	0.01	57.31	8.44	0.26	91.21	53.42	0.69	0.09	0.38
NH4	WIN	15	0.73	0.66	0.67	-9.36	40.53	-0.07	0.29	0.19	16.9	6	-0.1	42.67	38.92	0.45	0.44	0.44
NH4	SPR	15	0.93	0.8	0.7	-13.95	34.26	-0.13	0.32	0.16	15.32	-6.14	-0.16	53.43	43.88	0.4	0.42	0.5
NH4	SUM	16	0.86	0.98	0.16	13.24	40.26	0.11	0.35	0.23	37.89	19.1	0.13	52.27	37.21	0.4	0.49	0.03
NH4	FAL	15	0.36	0.6	0.84	63.33	63.33	0.23	0.23	0.02	147.33	55.21	0.63	147.33	55.21	0.63	0.27	0.7
NH4	ALL	61	0.72	0.76	0.61	5.28	41.29	0.04	0.3	0.17	54.09	18.55	0.05	73.57	43.7	0.41	0.41	0.37
NO3	WIN	15	1.14	0.98	0.4	-14.3	61.33	-0.16	0.7	1.06	8.42	-16.97	-0.17	62.85	59.31	0.72	1.04	0.16
NO3	SPR	15	0.81	0.44	0.52	-45.73	57.22	-0.37	0.46	0.31	-40.29	-66.21	-0.84	50.53	73.6	1.05	0.67	0.27
NO3	SUM	16	0.29	0.14	0.41	-51.6	51.6	-0.15	0.15	0.01	-49.19	-72.9	-1.07	49.19	72.9	1.07	0.19	0.17
NO3	FAL	15	0.37	0.4	0.65	8.88	49.54	0.03	0.18	0.05	2.31	-17.12	0.09	53.33	53.49	0.5	0.23	0.42
NO3	ALL	61	0.65	0.48	0.56	-25.12	57.28	-0.16	0.37	0.37	-20.17	-43.79	-0.34	53.89	64.96	0.76	0.63	0.31
OC	WIN	15	2.39	2.15	0.65	-10.12	39.16	-0.24	0.94	1.69	15.01	4.52	-0.11	41.75	38.3	0.44	1.32	0.43
OC	SPR	15	2.24	1.99	0.88	-11.39	19.92	-0.26	0.45	0.2	-7.33	-11.24	-0.13	23.27	23.71	0.22	0.51	0.78
OC	SUM	16	2.69	3.1	0.35	15.32	37.35	0.41	1	1.31	22.66	12.11	0.15	41.65	34.07	0.37	1.22	0.12
OC	FAL	15	1.66	1.84	0.85	10.66	28.08	0.18	0.47	0.3	27.29	16.19	0.11	39.96	30.59	0.28	0.58	0.72
OC	ALL	61	2.25	2.28	0.64	1.29	31.88	0.03	0.72	0.96	14.54	5.51	0.01	36.74	31.71	0.32	0.98	0.41
PM-2.5	WIN	15	10.36	7.43	0.63	-28.25	33.55	-2.93	3.48	18.16	-19.63	-27.06	-0.39	27.12	33.86	0.47	5.17	0.4
PM-2.5	SPR	15	11.25	7.8	0.84	-30.64	32.65	-3.45	3.67	5.31	-28.34	-36.07	-0.44	31.43	38.84	0.47	4.15	0.71
PM-2.5	SUM	16	15.56	9.69	0.27	-37.69	39.06	-5.86	6.08	17.06	-34.95	-45.79	-0.6	36.64	47.38	0.63	7.17	0.07
PM-2.5	FAL	15	7.33	6.27	0.85	-14.49	22.53	-1.06	1.65	3.82	-9.77	-14.06	-0.17	21.77	24.63	0.26	2.22	0.73
PM-2.5	ALL	61	11.2	7.83	0.71	-30.06	33.56	-3.37	3.76	14.17	-23.37	-30.99	-0.43	29.36	36.36	0.48	5.05	0.5
SO4	WIN	15	1.66	1.15	0.89	-30.48	36.11	-0.51	0.6	0.35	-19.25	-26.52	-0.44	32.59	38.24	0.52	0.78	0.8
SO4	SPR	15	2.62	2.18	0.77	-16.78	27.59	-0.44	0.72	0.68	-11.56	-17.2	-0.2	26.22	29.41	0.33	0.93	0.6
SO4	SUM	16	3.32	2.71	0.04	-18.29	35.99	-0.61	1.2	2.71	-6.46	-15.04	-0.22	33.86	36.16	0.44	1.76	0
SO4	FAL	15	1.43	1.37	0.87	-4.03	18.77	-0.06	0.27	0.11	-3.72	-6.88	-0.04	20.39	20.99	0.2	0.34	0.76
SO4	ALL	61	2.27	1.87	0.68	-17.85	30.97	-0.41	0.7	1.04	-10.18	-16.39	-0.22	28.36	31.28	0.38	1.1	0.46

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 370570002																		
EC	WIN	13	0.64	0.63	0.74	-0.84	30.31	-0.01	0.19	0.08	10.69	3.84	-0.01	30.81	28.31	0.31	0.28	0.55
EC	SPR	15	0.57	0.43	0.58	-23.59	30.23	-0.13	0.17	0.04	-17.95	-25.31	-0.31	28.57	34.65	0.4	0.24	0.34
EC	SUM	16	0.63	0.47	0.81	-24.19	25.52	-0.15	0.16	0.01	-23.54	-28.21	-0.32	25.54	30.11	0.34	0.18	0.65
EC	FAL	14	0.55	0.49	0.89	-10.4	23.07	-0.06	0.13	0.03	-4.72	-8.41	-0.12	22.49	24.13	0.26	0.17	0.78
EC	ALL	58	0.59	0.5	0.75	-15.37	27.28	-0.09	0.16	0.04	-9.88	-15.5	-0.18	26.77	29.43	0.32	0.22	0.56
NACL	WIN	15	0.15	0.12	0.05	-22.14	97.37	-0.03	0.14	0.09	47.97	3.7	-0.28	94.93	75.13	1.25	0.3	0
NACL	SPR	15	0.1	0.17	0.53	70.73	94.94	0.07	0.09	0.02	117.67	54.67	0.71	130.88	69.76	0.95	0.15	0.28
NACL	SUM	16	0.05	0.06	0.53	31.42	62.28	0.01	0.03	0	40.72	12.69	0.31	68.26	46.29	0.62	0.04	0.28
NACL	FAL	15	0.09	0.06	0.13	-36.33	72.69	-0.03	0.07	0.02	22.72	-0.75	-0.57	61.84	60.22	1.14	0.14	0.02
NACL	ALL	61	0.1	0.1	0.18	5.26	86.63	0.01	0.08	0.03	57	17.5	0.05	88.64	62.58	0.87	0.18	0.03
NH4	WIN	15	0.82	0.77	0.77	-5.85	38.48	-0.05	0.31	0.15	20.7	6.13	-0.06	49.87	42.09	0.41	0.39	0.6
NH4	SPR	15	0.9	0.82	0.64	-8.82	35.91	-0.08	0.32	0.17	11.61	-9.01	-0.1	51.57	45.2	0.39	0.42	0.41
NH4	SUM	16	0.86	0.87	0.33	1.51	40.63	0.01	0.35	0.2	15.3	2.96	0.02	43.42	40.2	0.41	0.44	0.11
NH4	FAL	15	0.39	0.6	0.66	55.05	67.7	0.21	0.26	0.09	107.48	50.65	0.55	114.02	57.65	0.68	0.37	0.43
NH4	ALL	61	0.74	0.77	0.63	3.31	42.11	0.02	0.31	0.17	38.39	12.52	0.03	64.37	46.18	0.42	0.41	0.4
NO3	WIN	15	1	1.26	0.71	26.35	53.13	0.26	0.53	0.53	24.6	5	0.26	56.12	49.47	0.53	0.77	0.51
NO3	SPR	15	0.73	0.6	0.66	-18.54	40.32	-0.14	0.3	0.14	-15.63	-31.94	-0.23	40.26	53.18	0.49	0.4	0.43
NO3	SUM	16	0.27	0.19	0.49	-28.03	41.81	-0.07	0.11	0.01	-30.3	-47.35	-0.39	44.13	58.19	0.58	0.13	0.24
NO3	FAL	15	0.36	0.56	0.48	57.3	95.67	0.2	0.34	0.29	52.72	13.07	0.57	90.6	68.48	0.96	0.57	0.23
NO3	ALL	61	0.58	0.64	0.72	10.61	54.19	0.06	0.32	0.27	7.22	-15.83	0.11	57.55	57.34	0.54	0.52	0.52
OC	WIN	13	2.21	2.21	0.64	-0.13	34.69	0	0.77	0.88	3.54	-3.68	0	33.07	34.03	0.35	0.94	0.41
OC	SPR	15	1.94	1.82	0.75	-6.21	26.45	-0.12	0.51	0.33	-5.6	-11.14	-0.07	28.55	30.77	0.28	0.59	0.56
OC	SUM	16	2.5	2.87	0.45	14.81	39.87	0.37	1	1.69	20.54	10.65	0.15	38.25	33.42	0.4	1.35	0.2
OC	FAL	14	1.72	1.68	0.97	-2.24	14.33	-0.04	0.25	0.09	0.52	-2.89	-0.02	20.33	19.97	0.15	0.3	0.93
OC	ALL	58	2.1	2.16	0.7	2.9	30.4	0.06	0.64	0.81	5.14	-1.46	0.03	30.25	29.62	0.3	0.9	0.49
PM-2.5	WIN	15	9.96	8.23	0.92	-17.39	19.97	-1.73	1.99	2.49	-18.01	-21.4	-0.21	20.4	23.68	0.24	2.34	0.85
PM-2.5	SPR	15	10.48	7.57	0.82	-27.75	28.5	-2.91	2.99	4.07	-27.68	-36.27	-0.38	30.21	38.57	0.39	3.54	0.67
PM-2.5	SUM	16	14.39	8.99	0.57	-37.48	37.75	-5.39	5.43	11.87	-37.65	-49.69	-0.6	37.84	49.88	0.6	6.4	0.33
PM-2.5	FAL	15	7.73	6.12	0.89	-20.89	23.89	-1.62	1.85	3.42	-19.08	-25.31	-0.26	24.88	30.37	0.3	2.46	0.8
PM-2.5	ALL	61	10.7	7.75	0.78	-27.59	28.99	-2.95	3.1	7.94	-25.8	-33.44	-0.38	28.49	35.86	0.4	4.08	0.6
SO4	WIN	15	1.76	1.25	0.82	-28.96	33.39	-0.51	0.59	0.46	-18.3	-25.17	-0.41	28.47	33.99	0.47	0.85	0.68
SO4	SPR	15	2.48	2.13	0.7	-14.24	30.86	-0.35	0.76	0.98	-12.49	-19.12	-0.17	27.16	31.41	0.36	1.05	0.49
SO4	SUM	16	3.2	2.39	0.21	-25.34	38.09	-0.81	1.22	1.96	-20.91	-30.71	-0.34	33.05	40.75	0.51	1.62	0.05
SO4	FAL	15	1.53	1.27	0.67	-17.23	31.21	-0.26	0.48	0.38	-14.54	-23.74	-0.21	28.71	36.13	0.38	0.67	0.45
SO4	ALL	61	2.26	1.77	0.63	-21.69	34.09	-0.49	0.77	1.01	-16.63	-24.78	-0.28	29.41	35.65	0.44	1.12	0.4

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 370670022																		
EC	WIN	10	0.56	0.65	0.82	16.04	32.49	0.09	0.18	0.04	28.46	20.1	0.16	37.95	30.92	0.32	0.22	0.67
EC	SPR	7	0.42	0.47	0.66	10.75	28.4	0.05	0.12	0.02	22.13	15.91	0.11	31.7	27.4	0.28	0.14	0.44
EC	SUM	5	0.48	0.5	0.94	3.2	11.68	0.02	0.06	0.01	4.84	3.56	0.03	12.43	11.47	0.12	0.08	0.87
EC	FAL	14	0.47	0.54	0.95	13.86	19.23	0.07	0.09	0.01	21.84	16.61	0.14	26.88	21.97	0.19	0.11	0.89
EC	ALL	36	0.49	0.55	0.87	12.58	23.96	0.06	0.12	0.02	21.37	15.63	0.13	28.89	24.05	0.24	0.15	0.75
NACL	WIN	12	0.04	0.11	0.81	150.92	178.24	0.07	0.08	0.02	656.7	64.57	1.51	668.63	83.08	1.78	0.16	0.66
NACL	SPR	11	0.06	0.14	0.79	157.59	157.59	0.09	0.09	0.02	137.57	69.54	1.58	137.57	69.54	1.58	0.16	0.63
NACL	SUM	13	0.07	0.05	0.4	-28.89	63.23	-0.02	0.05	0	-9.34	-32.85	-0.41	55.29	61.78	0.89	0.07	0.16
NACL	FAL	14	0.04	0.05	0.1	21	60.1	0.01	0.03	0	45.11	18.46	0.21	64.64	45.99	0.6	0.04	0.01
NACL	ALL	50	0.05	0.09	0.48	60.32	106.91	0.03	0.06	0.01	198.07	27.42	0.6	223.21	64.18	1.07	0.12	0.23
NH4	WIN	12	0.93	0.84	0.73	-9.04	38.8	-0.08	0.36	0.2	13.13	-0.93	-0.1	47.64	43.04	0.43	0.46	0.53
NH4	SPR	11	0.83	0.91	0.77	9.04	33.84	0.08	0.28	0.11	46.48	20.4	0.09	64.04	40.8	0.34	0.34	0.59
NH4	SUM	13	0.91	0.8	0.05	-11.77	39.76	-0.11	0.36	0.22	4.53	-5.65	-0.13	38.43	39.13	0.45	0.48	0
NH4	FAL	14	0.4	0.58	0.72	45.69	54.37	0.18	0.22	0.08	63.82	34.8	0.46	69.19	40.5	0.54	0.33	0.52
NH4	ALL	50	0.75	0.77	0.65	2.59	40.2	0.02	0.3	0.17	32.42	12.54	0.03	54.89	40.82	0.4	0.41	0.42
NO3	WIN	12	1.12	1.46	0.52	29.78	73.4	0.33	0.82	1.49	39.95	3.66	0.3	82.36	63.03	0.73	1.27	0.27
NO3	SPR	11	0.6	0.62	0.73	3.45	40.23	0.02	0.24	0.09	2.46	-10.55	0.03	46.05	45.59	0.4	0.3	0.54
NO3	SUM	13	0.26	0.14	0.29	-48.16	57.21	-0.13	0.15	0.01	-46.66	-73.63	-0.93	55.73	81.53	1.1	0.17	0.09
NO3	FAL	14	0.34	0.57	0.44	67.73	116.56	0.23	0.4	0.39	50.02	-2.26	0.68	100.98	75.37	1.17	0.66	0.19
NO3	ALL	50	0.57	0.68	0.63	20.53	70.94	0.12	0.4	0.52	12	-21.22	0.21	72.66	67.46	0.71	0.73	0.39
OC	WIN	10	1.77	2.08	0.78	17.18	38.36	0.3	0.68	0.56	34.27	23.17	0.17	45.84	36.7	0.38	0.81	0.61
OC	SPR	7	1.5	1.67	0.83	10.81	19.9	0.16	0.3	0.11	14.85	11.22	0.11	23.45	20.53	0.2	0.37	0.69
OC	SUM	5	2.19	3.06	0.73	39.69	52.08	0.87	1.14	0.89	50.06	30.2	0.4	63.49	46.34	0.52	1.28	0.53
OC	FAL	14	1.57	1.62	0.83	2.95	28.37	0.05	0.45	0.38	3.03	-2.75	0.03	30.19	29	0.28	0.62	0.68
OC	ALL	36	1.7	1.95	0.78	15	34.05	0.25	0.58	0.52	20.54	11.74	0.15	37.85	31.9	0.34	0.77	0.61
PM-2.5	WIN	12	8.87	8.34	0.82	-5.92	25.24	-0.52	2.24	7.17	-6.7	-10.72	-0.06	24.6	25.72	0.27	2.73	0.67
PM-2.5	SPR	12	10.22	8.23	0.89	-19.46	21.96	-1.99	2.24	2.13	-21.19	-25.51	-0.24	23.6	27.84	0.27	2.47	0.79
PM-2.5	SUM	13	15.05	8.26	0.18	-45.1	45.56	-6.79	6.86	14.09	-42.73	-57.75	-0.82	43.32	58.32	0.83	7.76	0.03
PM-2.5	FAL	14	7.11	6.07	0.84	-14.53	31.34	-1.03	2.23	5.36	-8.67	-16.18	-0.17	35.66	37.62	0.37	2.54	0.7
PM-2.5	ALL	51	10.28	7.67	0.63	-25.34	33.21	-2.6	3.41	13.49	-19.83	-27.69	-0.34	32.17	37.79	0.44	4.5	0.4
SO4	WIN	12	2.01	1.33	0.78	-33.84	38.58	-0.68	0.77	0.56	-22.2	-31.55	-0.51	35.36	42.81	0.58	1.01	0.61
SO4	SPR	11	2.52	2.42	0.75	-3.88	32.41	-0.1	0.82	1.05	-0.23	-5.64	-0.04	30.48	30.24	0.34	1.03	0.57
SO4	SUM	13	3.49	2.31	0.17	-33.98	38.01	-1.19	1.33	2.21	-26.55	-36.47	-0.51	31.54	40.88	0.58	1.9	0.03
SO4	FAL	14	1.63	1.21	0.72	-25.74	32.43	-0.42	0.53	0.28	-24.4	-35.05	-0.35	32.64	42.54	0.44	0.68	0.52
SO4	ALL	50	2.4	1.79	0.6	-25.43	35.77	-0.61	0.86	1.18	-19.11	-28.11	-0.34	32.53	39.47	0.48	1.24	0.36

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 371190041																		
EC	WIN	23	0.72	1.23	0.79	70.9	70.9	0.51	0.51	0.09	97.94	59.01	0.71	97.94	59.01	0.71	0.59	0.63
EC	SPR	24	0.53	0.89	0.45	68	70.19	0.36	0.37	0.07	85.71	52.16	0.68	87.13	53.64	0.7	0.45	0.2
EC	SUM	26	0.62	0.95	0.56	53.43	58.24	0.33	0.36	0.07	62.8	42.66	0.53	65.41	45.8	0.58	0.42	0.31
EC	FAL	24	0.59	1.1	0.74	86.96	91.29	0.51	0.54	0.16	112.17	61.68	0.87	114.49	64.38	0.91	0.65	0.55
EC	ALL	97	0.61	1.04	0.7	69.38	72.18	0.43	0.44	0.1	89.02	53.59	0.69	90.64	55.47	0.72	0.53	0.48
NACL	WIN	27	0.06	0.16	0.84	162	172.39	0.1	0.1	0.03	336.59	80.44	1.62	343.53	88.39	1.72	0.19	0.7
NACL	SPR	30	0.08	0.15	0.62	73.99	94.51	0.06	0.08	0.01	102.14	47.73	0.74	112.74	61.98	0.95	0.13	0.38
NACL	SUM	30	0.08	0.07	0.2	-12.15	73.53	-0.01	0.06	0.02	1.25	-20.56	-0.14	58.64	59.14	0.84	0.12	0.04
NACL	FAL	29	0.07	0.1	0.59	40.37	84.25	0.03	0.06	0.01	44.91	10.61	0.4	79.94	56.44	0.84	0.11	0.34
NACL	ALL	116	0.07	0.12	0.48	58.83	100.92	0.04	0.08	0.02	116.31	28.4	0.59	144.27	66	1.01	0.14	0.23
NH4	WIN	27	0.91	0.99	0.66	8.39	49.44	0.08	0.45	0.33	61.7	26.46	0.08	81.94	51.41	0.49	0.58	0.43
NH4	SPR	31	0.79	0.84	0.64	6.07	36.67	0.05	0.29	0.16	37.16	8.24	0.06	64.3	44.15	0.37	0.4	0.41
NH4	SUM	31	0.95	0.87	0.44	-7.82	35.55	-0.07	0.34	0.21	7.8	-4.76	-0.08	41.41	40.18	0.39	0.47	0.19
NH4	FAL	29	0.31	0.75	0.52	143.33	144.28	0.44	0.45	0.18	251.94	84	1.43	252.48	84.55	1.44	0.61	0.27
NH4	ALL	118	0.74	0.86	0.54	16.14	50.93	0.12	0.38	0.25	87.85	27.61	0.16	108.57	54.7	0.51	0.52	0.29
NO3	WIN	27	1.5	1.75	0.61	16.19	59.45	0.24	0.89	1.35	59.42	20.31	0.16	89.26	60.53	0.59	1.19	0.38
NO3	SPR	31	0.58	0.59	0.81	2.18	46.88	0.01	0.27	0.12	9.34	-11.95	0.02	59.06	56.12	0.47	0.35	0.66
NO3	SUM	31	0.27	0.18	0.29	-32.29	50.19	-0.09	0.13	0.04	-25.02	-41.07	-0.48	44.19	57.13	0.74	0.22	0.08
NO3	FAL	29	0.38	0.9	0.57	140.24	168.79	0.53	0.64	1.48	101	19.16	1.4	138.49	72.31	1.69	1.33	0.33
NO3	ALL	118	0.66	0.82	0.62	25.29	70.96	0.17	0.47	0.77	34.3	-4.57	0.25	81.59	61.37	0.71	0.89	0.38
OC	WIN	23	2.27	3.42	0.88	50.83	51.5	1.15	1.17	0.45	71.57	47.63	0.51	72.23	48.31	0.52	1.33	0.78
OC	SPR	24	2.03	2.61	0.68	28.4	39.26	0.58	0.8	0.66	39.66	25.47	0.28	48.56	35.74	0.39	1	0.47
OC	SUM	26	2.68	3.54	0.43	31.93	47.62	0.86	1.28	2.68	48.66	29.31	0.32	56.53	40.32	0.48	1.85	0.19
OC	FAL	24	1.92	2.75	0.79	43.69	51.98	0.84	1	0.74	67.55	41.29	0.44	72.1	46.39	0.52	1.2	0.63
OC	ALL	97	2.23	3.09	0.68	38.18	47.6	0.85	1.06	1.21	56.54	35.67	0.38	62.13	42.58	0.48	1.39	0.46
PM-2.5	WIN	28	11.57	12.82	0.84	10.75	24.99	1.24	2.89	12.2	21.24	15.98	0.11	28.79	24.66	0.25	3.71	0.7
PM-2.5	SPR	30	10.54	9.72	0.53	-7.81	25.79	-0.82	2.72	12.26	-2.41	-8.13	-0.08	26.4	27.75	0.28	3.6	0.28
PM-2.5	SUM	31	16.15	11.48	0.46	-28.91	30.3	-4.67	4.89	23.19	-25.35	-32.34	-0.41	26.85	33.77	0.43	6.71	0.22
PM-2.5	FAL	29	8.82	10.07	0.74	14.13	28.41	1.25	2.51	10.99	18.54	12.13	0.14	30.25	25.03	0.28	3.54	0.55
PM-2.5	ALL	118	11.84	11	0.61	-7.05	27.7	-0.83	3.28	20.76	2.32	-3.79	-0.08	28.03	27.93	0.3	4.63	0.38
SO4	WIN	27	1.74	1.52	0.79	-12.81	27.41	-0.22	0.48	0.37	-1.63	-6.05	-0.15	25.22	26.12	0.31	0.65	0.63
SO4	SPR	31	2.41	2.13	0.63	-11.7	29.42	-0.28	0.71	0.86	-7.33	-13.97	-0.13	27.74	30.85	0.33	0.97	0.4
SO4	SUM	31	3.66	2.48	0.4	-32.13	34.47	-1.18	1.26	2.26	-26.94	-36.28	-0.47	29.87	39.09	0.51	1.91	0.16
SO4	FAL	29	1.47	1.54	0.74	5.34	26.06	0.08	0.38	0.28	8.82	3.51	0.05	27.27	25.82	0.26	0.53	0.55
SO4	ALL	118	2.35	1.94	0.64	-17.62	30.63	-0.41	0.72	1.2	-7.21	-13.72	-0.21	27.61	30.7	0.37	1.17	0.4

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 371590021																		
EC	WIN	14	0.54	0.47	0.37	-13.74	47.2	-0.07	0.26	0.13	7.61	-5.53	-0.16	44.46	43.61	0.55	0.37	0.14
EC	SPR	14	0.42	0.32	0.64	-23.35	31.52	-0.1	0.13	0.02	-19.88	-28.38	-0.3	30.52	38.02	0.41	0.17	0.41
EC	SUM	15	0.51	0.31	0.68	-39.79	39.79	-0.2	0.2	0.01	-38.69	-50.15	-0.66	38.69	50.15	0.66	0.23	0.46
EC	FAL	15	0.49	0.33	0.72	-33.65	40.86	-0.17	0.2	0.05	-15.48	-28.6	-0.51	40.63	45.56	0.62	0.28	0.52
EC	ALL	58	0.49	0.35	0.53	-27.88	40.35	-0.14	0.2	0.06	-16.97	-28.55	-0.39	38.61	44.45	0.56	0.27	0.28
NACL	WIN	15	0.04	0.09	0.89	122.91	145.38	0.05	0.06	0.02	189.32	47.91	1.23	206.7	70.34	1.45	0.14	0.8
NACL	SPR	15	0.1	0.17	0.6	69.12	90.02	0.07	0.09	0.02	100.25	47.44	0.69	113.19	63.73	0.9	0.15	0.36
NACL	SUM	14	0.05	0.05	0.59	9.39	64.98	0	0.03	0	1.51	-19.58	0.09	58.52	59.01	0.65	0.04	0.34
NACL	FAL	15	0.05	0.04	0.08	-19.14	62.57	-0.01	0.03	0	91.2	-10.92	-0.24	145.07	67.58	0.77	0.05	0.01
NACL	ALL	59	0.06	0.09	0.61	47.9	89.05	0.03	0.05	0.01	97.16	16.82	0.48	132.1	65.27	0.89	0.11	0.37
NH4	WIN	15	0.71	0.68	0.84	-4.63	34.56	-0.03	0.25	0.1	29.03	11.07	-0.05	53.92	41.53	0.36	0.32	0.7
NH4	SPR	15	0.9	0.82	0.67	-9.04	37.73	-0.08	0.34	0.19	11.89	-7.44	-0.1	51.87	45.68	0.41	0.44	0.45
NH4	SUM	14	0.85	0.88	0.5	3.89	40.53	0.03	0.34	0.17	19.41	5.8	0.04	46.75	42.25	0.41	0.41	0.25
NH4	FAL	14	0.3	0.59	0.69	95.48	96.95	0.29	0.29	0.08	128.55	65.32	0.95	131.61	68.75	0.97	0.41	0.48
NH4	ALL	58	0.7	0.74	0.67	6.92	43.93	0.05	0.31	0.16	46.3	18.11	0.07	70.41	49.35	0.44	0.4	0.45
NO3	WIN	15	0.87	0.98	0.72	12.61	48.72	0.11	0.42	0.34	15.93	-4.87	0.13	54.88	51.78	0.49	0.6	0.52
NO3	SPR	15	0.72	0.53	0.76	-26.88	39.53	-0.19	0.29	0.13	-14.77	-30.36	-0.37	40.26	50.08	0.54	0.42	0.57
NO3	SUM	14	0.24	0.17	0.03	-29.92	50.54	-0.07	0.12	0.02	-26.49	-46.14	-0.43	47.52	60.79	0.72	0.15	0
NO3	FAL	15	0.28	0.46	0.24	61.69	106.08	0.17	0.3	0.27	64.59	10.74	0.62	100.78	66.64	1.06	0.55	0.06
NO3	ALL	59	0.53	0.54	0.68	1.03	53.46	0.01	0.29	0.22	10.43	-17.18	0.01	61.09	57.27	0.53	0.46	0.46
OC	WIN	14	2.1	1.92	0.55	-8.33	40.91	-0.17	0.86	1.6	15.38	2.18	-0.09	44.95	40.4	0.45	1.28	0.3
OC	SPR	14	1.8	1.71	0.78	-4.92	28.57	-0.09	0.51	0.36	-5.11	-12.52	-0.05	30.64	35.03	0.3	0.61	0.61
OC	SUM	15	2.55	2.51	0.04	-1.33	40.15	-0.03	1.02	2.71	8.16	-4.63	-0.01	38.03	37.24	0.41	1.65	0
OC	FAL	15	1.62	1.39	0.86	-13.85	27.25	-0.22	0.44	0.32	-1.93	-11.51	-0.16	35.8	36.01	0.32	0.61	0.74
OC	ALL	58	2.02	1.89	0.52	-6.46	35.17	-0.13	0.71	1.26	4.09	-6.67	-0.07	37.34	37.15	0.38	1.13	0.27
PM-2.5	WIN	15	8.29	6.92	0.86	-16.5	21.83	-1.37	1.81	4.35	-11.16	-14.91	-0.2	21.43	24.09	0.26	2.49	0.74
PM-2.5	SPR	15	10.23	7.25	0.87	-29.11	29.11	-2.98	2.98	3.27	-29.94	-38.98	-0.41	29.94	38.98	0.41	3.48	0.75
PM-2.5	SUM	14	14.71	8.87	0.4	-39.72	43.36	-5.84	6.38	21.66	-37.72	-52.65	-0.66	42.46	56.72	0.72	7.47	0.16
PM-2.5	FAL	15	7.1	5.26	0.77	-25.93	33.92	-1.84	2.41	7.34	-17.24	-26.1	-0.35	31.27	38.34	0.46	3.27	0.6
PM-2.5	ALL	59	10	7.04	0.72	-29.58	33.42	-2.96	3.34	11.88	-23.78	-32.83	-0.42	31.09	39.24	0.47	4.54	0.51
SO4	WIN	15	1.67	1.25	0.85	-25.33	33.68	-0.42	0.56	0.46	-12.68	-18.74	-0.34	29.58	33.54	0.45	0.8	0.73
SO4	SPR	15	2.57	2.19	0.7	-14.67	30.71	-0.38	0.79	1.01	-11.95	-18.94	-0.17	28.36	32.76	0.36	1.07	0.49
SO4	SUM	14	3.38	2.42	0.44	-28.29	32.63	-0.95	1.1	1.55	-25.56	-35.61	-0.39	29.89	39.62	0.45	1.57	0.2
SO4	FAL	15	1.36	1.25	0.72	-8.17	31.46	-0.11	0.43	0.31	-6.94	-14.82	-0.09	29.92	34.68	0.34	0.56	0.52
SO4	ALL	59	2.23	1.77	0.7	-20.59	32.08	-0.46	0.71	0.91	-14.09	-21.8	-0.26	29.43	35.07	0.4	1.06	0.5

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 371830014																		
EC	WIN	26	0.74	1.14	0.87	52.66	53.95	0.39	0.4	0.07	81.86	51.82	0.53	82.33	52.31	0.54	0.47	0.76
EC	SPR	30	0.41	0.75	0.4	82.03	84.19	0.34	0.35	0.06	100.39	57	0.82	101.58	58.3	0.84	0.42	0.16
EC	SUM	30	0.5	0.87	0.69	72.74	74	0.37	0.37	0.03	81.38	54.21	0.73	82.28	55.17	0.74	0.41	0.48
EC	FAL	28	0.55	1	0.65	81.74	84.26	0.45	0.47	0.09	102.91	60.32	0.82	104.2	61.73	0.84	0.54	0.42
EC	ALL	114	0.55	0.93	0.77	70.6	72.36	0.39	0.4	0.06	91.78	55.9	0.71	92.75	56.95	0.72	0.46	0.6
NACL	WIN	27	0.06	0.15	0.77	149.78	166.34	0.09	0.1	0.03	584.52	71.55	1.5	595.33	86.72	1.66	0.21	0.6
NACL	SPR	30	0.12	0.16	0.51	34.81	73.85	0.04	0.09	0.02	124.54	46.24	0.35	136.99	62.18	0.74	0.16	0.26
NACL	SUM	27	0.08	0.08	0.15	-7.17	94.47	-0.01	0.08	0.03	53.46	-21.27	-0.08	119.09	74.48	1.02	0.18	0.02
NACL	FAL	28	0.1	0.18	0.51	87.58	122.86	0.08	0.12	0.04	92.74	32.47	0.88	114.37	61.61	1.23	0.23	0.26
NACL	ALL	112	0.09	0.14	0.4	58.17	106.31	0.05	0.1	0.03	210.34	32.62	0.58	237.51	70.92	1.06	0.19	0.16
NH4	WIN	27	0.8	0.87	0.66	8.7	39.87	0.07	0.32	0.15	33.9	17.69	0.09	51.86	39.47	0.4	0.4	0.44
NH4	SPR	31	0.7	0.71	0.7	1.89	30.73	0.01	0.22	0.07	3.45	-4.85	0.02	32.33	34.19	0.31	0.26	0.49
NH4	SUM	27	0.98	0.83	0.63	-14.98	31.28	-0.15	0.31	0.15	-8.44	-17.1	-0.18	31.86	36.42	0.37	0.42	0.4
NH4	FAL	28	0.44	0.71	0.73	61.15	68.92	0.27	0.3	0.09	98.48	45.37	0.61	107.71	56.34	0.69	0.4	0.54
NH4	ALL	113	0.73	0.78	0.64	7.16	39.05	0.05	0.28	0.14	31.43	10.05	0.07	55.56	41.47	0.39	0.37	0.41
NO3	WIN	27	1.1	1.52	0.54	38.81	60.73	0.43	0.67	0.74	69.72	31.38	0.39	85.55	54	0.61	0.96	0.29
NO3	SPR	31	0.5	0.53	0.51	6.87	50.46	0.03	0.25	0.13	17.49	-4.43	0.07	57.04	52.21	0.5	0.36	0.26
NO3	SUM	27	0.25	0.16	0.3	-35.09	59.64	-0.09	0.15	0.03	-33.91	-62.68	-0.54	57.93	75.75	0.92	0.2	0.09
NO3	FAL	28	0.36	0.71	0.77	95.04	114.97	0.35	0.42	0.27	82.33	34.32	0.95	105.87	66.1	1.15	0.63	0.6
NO3	ALL	113	0.55	0.72	0.68	32.13	66.98	0.18	0.37	0.33	33.76	-0.19	0.32	76.17	61.71	0.67	0.6	0.46
OC	WIN	26	2.33	3.06	0.86	31.25	37.91	0.73	0.88	0.53	55.25	37.19	0.31	58.41	40.62	0.38	1.03	0.75
OC	SPR	30	1.71	2.18	0.7	27.26	40.86	0.47	0.7	0.59	46.07	26.39	0.27	54.79	36.96	0.41	0.9	0.49
OC	SUM	30	2.87	3.61	0.66	25.73	37.82	0.74	1.09	1.49	34.08	22.13	0.26	43.24	33	0.38	1.43	0.44
OC	FAL	28	1.86	2.73	0.7	46.96	52.58	0.87	0.98	1.12	55.16	36.16	0.47	58.95	40.42	0.53	1.37	0.49
OC	ALL	114	2.19	2.89	0.75	31.8	41.54	0.7	0.91	0.96	47.24	30.13	0.32	53.6	37.61	0.42	1.2	0.56
PM-2.5	WIN	27	9.28	10.38	0.87	11.78	20	1.09	1.86	4.21	18.47	13.59	0.12	25.57	21.31	0.2	2.32	0.76
PM-2.5	SPR	31	9.3	8.26	0.68	-11.2	24.74	-1.04	2.3	6	-6.5	-12.05	-0.13	27.45	29.39	0.28	2.66	0.46
PM-2.5	SUM	27	15.34	10.66	0.75	-30.49	31.72	-4.68	4.86	10.31	-28.54	-36.23	-0.44	30.66	38.22	0.46	5.67	0.56
PM-2.5	FAL	28	9.24	9.17	0.86	-0.74	21.56	-0.07	1.99	5.4	1.93	-1.68	-0.01	23.01	22.99	0.22	2.32	0.73
PM-2.5	ALL	113	10.72	9.56	0.74	-10.8	25.46	-1.16	2.73	10.92	-3.71	-9.13	-0.12	26.67	27.98	0.29	3.5	0.54
SO4	WIN	27	1.72	1.37	0.68	-20.44	29.48	-0.35	0.51	0.34	-11.67	-17.73	-0.26	27.99	31.27	0.37	0.68	0.46
SO4	SPR	31	2.16	1.86	0.77	-13.73	24.51	-0.3	0.53	0.34	-13.93	-19.7	-0.16	24.33	29.07	0.28	0.65	0.59
SO4	SUM	27	3.65	2.5	0.57	-31.37	33.92	-1.14	1.24	1.64	-28.62	-38.19	-0.46	31.51	40.94	0.49	1.72	0.33
SO4	FAL	28	1.8	1.64	0.78	-8.94	26.33	-0.16	0.47	0.35	-8.6	-15.62	-0.1	26.57	30.93	0.29	0.62	0.61
SO4	ALL	113	2.32	1.84	0.71	-20.62	29.27	-0.48	0.68	0.8	-15.58	-22.64	-0.26	27.47	32.89	0.37	1.01	0.51

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 380171004																		
EC	WIN	28	0.24	0.28	0.68	14.28	42.25	0.03	0.1	0.03	35.68	22.45	0.14	45.78	34.97	0.42	0.18	0.47
EC	SPR	29	0.22	0.3	0.8	37.74	48.13	0.08	0.1	0.01	53.26	34.95	0.38	60.01	43.06	0.48	0.13	0.63
EC	SUM	30	0.35	0.32	0.24	-9.83	41.22	-0.03	0.15	0.05	11.27	-1.7	-0.11	41.68	40.23	0.46	0.23	0.06
EC	FAL	30	0.35	0.46	0.67	31.11	40.44	0.11	0.14	0.05	53.26	28.86	0.31	59.58	36.79	0.4	0.25	0.45
EC	ALL	117	0.29	0.34	0.57	16.31	42.44	0.05	0.12	0.04	38.28	21	0.16	51.8	38.79	0.42	0.2	0.32
NACL	WIN	28	0.13	0.07	0.19	-48.73	59.87	-0.06	0.08	0.03	13.52	-19.28	-0.95	64.78	55.93	1.17	0.19	0.04
NACL	SPR	29	0.07	0.07	0.62	13.89	64.39	0.01	0.04	0	94.03	32.23	0.14	118.73	64.37	0.64	0.05	0.38
NACL	SUM	29	0.06	0.02	0.06	-69.85	76.59	-0.04	0.05	0.03	21.88	-40.11	-2.32	99	72.06	2.54	0.16	0
NACL	FAL	30	0.06	0.06	0.12	0.9	68.19	0	0.04	0	64.37	13.92	0.01	98	62.29	0.68	0.06	0.01
NACL	ALL	116	0.08	0.06	0.18	-30.3	65.8	-0.02	0.05	0.02	48.89	-3.02	-0.43	95.41	63.71	0.94	0.13	0.03
NH4	WIN	28	0.8	0.98	0.54	22.91	64.09	0.18	0.51	0.64	55.36	20.99	0.23	82.34	54.33	0.64	0.82	0.29
NH4	SPR	30	0.91	1	0.94	9.81	27.7	0.09	0.25	0.09	58.98	25.47	0.1	72.59	40.93	0.28	0.32	0.89
NH4	SUM	29	0.24	0.41	0.69	66.35	82.87	0.16	0.2	0.04	148.48	58.3	0.66	156.08	67.1	0.83	0.27	0.48
NH4	FAL	30	0.34	0.73	0.64	115.88	121.1	0.39	0.41	0.14	272.35	84.69	1.16	274.28	86.95	1.21	0.54	0.41
NH4	ALL	117	0.57	0.78	0.76	36.22	59.83	0.21	0.34	0.24	135.01	47.72	0.36	147.33	62.43	0.6	0.53	0.57
NO3	WIN	28	2.2	2.38	0.71	8.46	49	0.19	1.08	2.21	35.2	4.02	0.08	72.48	54.01	0.49	1.5	0.5
NO3	SPR	30	1.85	1.83	0.86	-1.38	35.67	-0.03	0.66	1.08	30.91	-9.12	-0.01	77.01	59.6	0.36	1.04	0.74
NO3	SUM	30	0.28	0.21	0.73	-24.38	56.5	-0.07	0.16	0.04	-22.39	-50.48	-0.32	58.92	71.27	0.75	0.21	0.53
NO3	FAL	30	0.76	1.47	0.71	93.15	98.79	0.71	0.75	1.03	114.64	53.7	0.93	121.83	62.11	0.99	1.24	0.51
NO3	ALL	118	1.26	1.46	0.8	15.91	52.08	0.2	0.66	1.17	39.66	-0.55	0.16	82.73	61.88	0.52	1.1	0.63
OC	WIN	28	1.28	0.9	0.58	-29.18	72.71	-0.37	0.93	5.64	102.01	39.23	-0.41	118.73	64.68	1.03	2.4	0.33
OC	SPR	27	0.49	0.92	0.72	85.42	87.11	0.42	0.43	0.1	325.65	69.1	0.85	326.36	69.84	0.87	0.53	0.52
OC	SUM	30	1.36	1.11	0.22	-18.27	47.23	-0.25	0.64	1.12	9.28	-5.62	-0.22	44.31	42.14	0.58	1.09	0.05
OC	FAL	30	1.23	1.7	0.4	38.73	61.33	0.48	0.75	1.8	157.85	39.85	0.39	169.25	54.65	0.61	1.42	0.16
OC	ALL	115	1.1	1.17	0.3	6.17	62.74	0.07	0.69	2.31	144.9	34.7	0.06	161.24	57.4	0.63	1.52	0.09
PM-2.5	WIN	28	7.12	6.53	0.79	-8.27	34.16	-0.59	2.43	9.69	-10.39	-18.21	-0.09	33.41	37	0.37	3.17	0.62
PM-2.5	SPR	29	7.65	6.44	0.9	-15.82	22.88	-1.21	1.75	4.88	-8.87	-14.12	-0.19	24.96	27.48	0.27	2.52	0.81
PM-2.5	SUM	30	8.92	4.94	0.14	-44.6	47.22	-3.98	4.21	9.11	-40.26	-56.49	-0.81	43.59	59.16	0.85	4.99	0.02
PM-2.5	FAL	29	8.93	8	0.53	-10.44	37.53	-0.93	3.35	20.41	3.61	-5.47	-0.12	36.33	36.24	0.42	4.61	0.28
PM-2.5	ALL	116	8.17	6.46	0.63	-20.89	36.12	-1.71	2.95	12.86	-14.23	-23.9	-0.26	34.66	40.16	0.46	3.97	0.4
SO4	WIN	28	0.99	0.82	0.56	-16.58	55.12	-0.16	0.54	0.75	-17.67	-33.26	-0.2	45.64	50.68	0.66	0.88	0.31
SO4	SPR	30	1.47	1.3	0.74	-11.57	38.21	-0.17	0.56	0.63	6.01	-5.33	-0.13	41.8	39.02	0.43	0.81	0.55
SO4	SUM	30	1.04	0.98	0.57	-6.16	37.22	-0.06	0.39	0.34	3.18	-4.74	-0.07	32.39	31.4	0.4	0.59	0.33
SO4	FAL	30	0.86	0.88	0.78	2.29	26.85	0.02	0.23	0.11	20.6	7.68	0.02	39.69	29.27	0.27	0.33	0.61
SO4	ALL	118	1.09	1	0.63	-8.56	39.32	-0.09	0.43	0.46	3.38	-8.5	-0.09	39.78	37.37	0.43	0.68	0.4

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390350038																		
EC	WIN	14	0.44	1	0.65	127.17	127.17	0.56	0.56	0.05	611.78	82.61	1.27	611.78	82.61	1.27	0.6	0.43
EC	SPR	14	0.67	1.04	0.81	55.56	55.99	0.37	0.38	0.05	85.52	52.35	0.56	85.69	52.53	0.56	0.44	0.65
EC	SUM	15	1.04	1.06	0.82	2.12	19.88	0.02	0.21	0.1	14.05	9.45	0.02	23.37	20.63	0.2	0.32	0.67
EC	FAL	15	0.85	1.05	0.83	23.97	29.62	0.2	0.25	0.06	37.85	27.24	0.24	41.03	30.63	0.3	0.32	0.69
EC	ALL	58	0.76	1.04	0.72	37.44	45.49	0.28	0.34	0.1	181.74	42.07	0.37	185.01	45.87	0.45	0.43	0.51
NACL	WIN	14	0.13	0.18	0.71	43.66	52.34	0.06	0.07	0	61.58	41.14	0.44	66.71	47.09	0.52	0.07	0.5
NACL	SPR	13	0.09	0.14	0.42	52.55	65.87	0.05	0.06	0	77.15	42.53	0.53	84.37	51.1	0.66	0.07	0.18
NACL	SUM	16	0.09	0.04	0.33	-48.88	50.57	-0.04	0.04	0	-40.66	-58.93	-0.96	46.29	63.53	0.99	0.05	0.11
NACL	FAL	12	0.08	0.08	0.25	-6.44	57.18	-0.01	0.05	0.01	67.96	17.49	-0.07	94.3	55.9	0.61	0.07	0.06
NACL	ALL	55	0.1	0.11	0.47	11.99	55.74	0.01	0.05	0	36.91	7.2	0.12	70.96	54.74	0.56	0.07	0.22
NH4	WIN	15	1.44	1.17	0.92	-18.78	35.69	-0.27	0.51	0.49	14.57	-1.05	-0.23	45	35.16	0.44	0.75	0.85
NH4	SPR	14	1.41	1.52	0.94	8.01	19.2	0.11	0.27	0.12	12.8	7.69	0.08	25.49	22.46	0.19	0.37	0.88
NH4	SUM	16	1.36	1.12	0.88	-18.19	36.85	-0.25	0.5	0.39	25.79	4.23	-0.22	58.52	43.76	0.45	0.67	0.78
NH4	FAL	12	0.87	0.86	0.78	-0.68	38.44	-0.01	0.33	0.16	154.3	23.79	-0.01	178.13	51.54	0.39	0.4	0.61
NH4	ALL	57	1.29	1.18	0.86	-8.86	32	-0.11	0.41	0.33	46.7	7.81	-0.1	72.03	37.9	0.35	0.59	0.73
NO3	WIN	15	3.02	2.54	0.89	-15.83	30.55	-0.48	0.92	1.1	-3.08	-15.05	-0.19	39.74	38.65	0.36	1.15	0.79
NO3	SPR	14	2.13	2.1	0.67	-1.43	49.45	-0.03	1.05	2.48	10.46	-6.93	-0.01	51.07	49.92	0.5	1.58	0.45
NO3	SUM	16	0.83	0.25	0.45	-69.16	69.98	-0.57	0.58	0.51	-63.2	-102.28	-2.24	64.32	103.35	2.27	0.91	0.21
NO3	FAL	12	1.25	0.97	0.57	-22.18	50.42	-0.28	0.63	0.69	12.01	-24.82	-0.29	76.11	66.13	0.65	0.87	0.32
NO3	ALL	57	1.81	1.46	0.8	-19.42	43.94	-0.35	0.8	1.23	-13.45	-39.6	-0.24	57.08	65.37	0.55	1.16	0.64
OC	WIN	13	1.39	3.15	0.82	125.75	125.75	1.75	1.75	0.58	143.71	78.99	1.26	143.71	78.99	1.26	1.91	0.67
OC	SPR	14	1.5	2.5	0.74	66.44	66.44	1	1	0.43	95.77	57.07	0.66	95.77	57.07	0.66	1.19	0.55
OC	SUM	15	2.43	2.63	0.8	8.22	23.24	0.2	0.56	0.47	18.49	12.59	0.08	29.22	25.06	0.23	0.71	0.64
OC	FAL	15	1.56	2.15	0.83	37.27	46.18	0.58	0.72	0.33	74.2	45.39	0.37	77.69	49.4	0.46	0.82	0.69
OC	ALL	57	1.74	2.59	0.64	48.96	56.6	0.85	0.98	0.77	80.69	47.29	0.49	84.43	51.62	0.57	1.22	0.41
PM-2.5	WIN	14	10.61	11.33	0.93	6.81	17.76	0.72	1.88	4.53	15.82	11.54	0.07	24.55	20.75	0.18	2.25	0.86
PM-2.5	SPR	13	10.8	12	0.54	11.15	33.94	1.2	3.67	19.74	17.65	10	0.11	34.57	31.31	0.34	4.6	0.3
PM-2.5	SUM	16	16.49	12.05	0.92	-26.91	27.83	-4.44	4.59	11.98	-22	-26.74	-0.37	25.36	29.73	0.38	5.63	0.85
PM-2.5	FAL	12	11.88	9.98	0.83	-15.92	25.81	-1.89	3.06	12.43	-4.54	-9.43	-0.19	26.02	26.16	0.31	4	0.68
PM-2.5	ALL	55	12.64	11.41	0.76	-9.77	26.5	-1.23	3.35	17.47	0.81	-4.54	-0.11	27.47	27.04	0.29	4.36	0.57
SO4	WIN	15	1.84	1.2	0.79	-34.64	38.52	-0.64	0.71	0.74	-25.71	-33.85	-0.53	30.82	38.26	0.59	1.07	0.63
SO4	SPR	14	2.83	2.71	0.72	-4.37	33.76	-0.12	0.96	1.72	0.74	-7.39	-0.05	32.85	35.81	0.35	1.32	0.52
SO4	SUM	16	4.18	3.48	0.91	-16.7	28.56	-0.7	1.19	1.86	2.42	-5.39	-0.2	33.01	30.33	0.34	1.53	0.83
SO4	FAL	12	2.35	1.72	0.87	-26.78	35.04	-0.63	0.82	0.65	-10.15	-18.58	-0.37	36.3	38.31	0.48	1.02	0.75
SO4	ALL	57	2.85	2.32	0.84	-18.49	32.65	-0.53	0.93	1.33	-8.04	-16.15	-0.23	33.09	35.44	0.4	1.27	0.7

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390350060																		
EC	WIN	11	1.08	1.25	0.85	15.66	28.65	0.17	0.31	0.11	29.09	20.21	0.16	37.47	29.44	0.29	0.37	0.73
EC	SPR	21	0.99	1.06	0.66	6.18	26.18	0.06	0.26	0.12	20.77	11.89	0.06	33.14	26.76	0.26	0.35	0.44
EC	SUM	26	1.25	1.01	0.79	-19.21	26.19	-0.24	0.33	0.13	-10.66	-16	-0.24	25.89	27.71	0.32	0.43	0.63
EC	FAL	21	1.18	1.06	0.72	-9.91	30.23	-0.12	0.36	0.22	0.61	-5.86	-0.11	30.14	31.06	0.34	0.48	0.52
EC	ALL	79	1.14	1.07	0.71	-6.16	27.62	-0.07	0.31	0.17	6.23	-0.85	-0.07	30.56	28.59	0.29	0.42	0.5
NACL	WIN	22	0.31	0.21	0.7	-31.45	59.51	-0.1	0.18	0.1	39.74	2.3	-0.46	77.19	55.77	0.87	0.33	0.49
NACL	SPR	22	0.18	0.12	0.61	-30.79	49.6	-0.05	0.09	0.01	6.97	-16.98	-0.44	59.61	53.09	0.72	0.13	0.37
NACL	SUM	26	0.08	0.04	0.58	-49.33	50.59	-0.04	0.04	0	-42.58	-59.42	-0.97	45.65	62.2	1	0.05	0.34
NACL	FAL	24	0.13	0.09	0.45	-29.72	57.29	-0.04	0.08	0.01	-5.27	-29.05	-0.42	57.39	59.42	0.82	0.11	0.2
NACL	ALL	94	0.17	0.11	0.64	-33.34	55.48	-0.06	0.09	0.03	-2.19	-27.29	-0.5	59.3	57.85	0.83	0.18	0.41
NH4	WIN	23	2.1	1.46	0.85	-30.15	36.26	-0.63	0.76	0.62	-8.32	-25.05	-0.43	45.9	45.29	0.52	1.01	0.72
NH4	SPR	22	1.57	1.38	0.82	-12.05	29.75	-0.19	0.47	0.34	-0.35	-8.99	-0.14	34.15	34.65	0.34	0.61	0.67
NH4	SUM	26	1.25	1.02	0.89	-18.97	36.55	-0.24	0.46	0.32	20.98	2.69	-0.23	51.69	40.68	0.45	0.62	0.79
NH4	FAL	25	0.86	0.89	0.82	4.13	34.4	0.04	0.3	0.12	63.65	22.73	0.04	82.54	45.21	0.34	0.35	0.68
NH4	ALL	96	1.42	1.17	0.84	-17.54	34.39	-0.25	0.49	0.4	20.18	-1.42	-0.21	54.32	41.58	0.42	0.68	0.71
NO3	WIN	23	3.73	3.12	0.76	-16.39	36.17	-0.61	1.35	2.84	-1.48	-13.91	-0.2	41.65	42.29	0.43	1.79	0.58
NO3	SPR	22	2.36	1.83	0.76	-22.7	37.37	-0.54	0.88	1.55	-20.82	-33	-0.29	37	46.67	0.48	1.36	0.58
NO3	SUM	26	0.79	0.22	0.49	-72.19	72.19	-0.57	0.57	0.43	-65.2	-104.69	-2.6	65.2	104.69	2.6	0.87	0.24
NO3	FAL	25	1.2	0.95	0.59	-20.87	49.21	-0.25	0.59	0.52	0.95	-28.77	-0.26	66.99	64.31	0.62	0.76	0.35
NO3	ALL	96	1.96	1.47	0.82	-24.95	42.52	-0.49	0.83	1.31	-22.54	-46.74	-0.33	53.56	65.93	0.57	1.24	0.68
OC	WIN	11	3.14	3.88	0.89	23.33	31.73	0.73	1	0.86	39.52	28.03	0.23	44.58	33.92	0.32	1.18	0.8
OC	SPR	21	1.54	2.45	0.79	59.79	59.79	0.92	0.92	0.39	79.13	50.98	0.6	79.13	50.98	0.6	1.11	0.62
OC	SUM	26	2.07	2.51	0.78	20.99	28.16	0.44	0.58	0.38	32.36	21.49	0.21	37.12	26.67	0.28	0.75	0.61
OC	FAL	21	1.87	2.33	0.89	24.22	33.94	0.45	0.64	0.28	47.09	31.62	0.24	52.27	37.33	0.34	0.69	0.79
OC	ALL	79	2.03	2.64	0.86	30.1	36.72	0.61	0.74	0.46	49.71	32.93	0.3	53.36	36.98	0.37	0.91	0.74
PM-2.5	WIN	22	15.59	14.15	0.79	-9.21	23.83	-1.43	3.71	24.61	-0.88	-6.68	-0.1	27.28	28.15	0.26	5.16	0.62
PM-2.5	SPR	22	12.65	12.36	0.75	-2.31	24.1	-0.29	3.05	16.49	3.57	-0.64	-0.02	23.59	23.6	0.25	4.07	0.56
PM-2.5	SUM	26	15.15	11.06	0.89	-26.99	28.3	-4.09	4.29	13.01	-23.48	-28.23	-0.37	24.98	29.6	0.39	5.45	0.8
PM-2.5	FAL	25	12.32	9.91	0.79	-19.55	28.99	-2.41	3.57	20	-7.59	-13.42	-0.24	26.87	29.67	0.36	5.08	0.62
PM-2.5	ALL	95	13.93	11.78	0.78	-15.46	26.42	-2.15	3.68	20.3	-7.8	-12.95	-0.18	25.69	27.89	0.31	4.99	0.6
SO4	WIN	23	3.05	1.56	0.47	-48.77	49.84	-1.49	1.52	1.91	-40.9	-58.31	-0.95	41.84	59.21	0.97	2.03	0.22
SO4	SPR	22	2.82	2.5	0.66	-11.16	34.22	-0.31	0.96	1.82	-4.25	-12.65	-0.13	33.74	37.29	0.39	1.38	0.43
SO4	SUM	26	3.86	3.17	0.9	-17.78	27.25	-0.69	1.05	1.62	-0.07	-7.88	-0.22	30.93	28.64	0.33	1.45	0.8
SO4	FAL	25	2.26	1.87	0.88	-17.33	25.25	-0.39	0.57	0.45	-6.96	-12.37	-0.21	26.01	27.89	0.31	0.78	0.78
SO4	ALL	96	3.01	2.29	0.75	-23.79	33.84	-0.72	1.02	1.64	-12.6	-22.22	-0.31	32.91	37.75	0.44	1.47	0.57

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390490081																		
EC	WIN	14	0.67	1.29	0.42	94.65	107.21	0.63	0.71	0.24	143.23	71.98	0.95	146.85	76.12	1.07	0.8	0.17
EC	SPR	15	0.43	0.9	0.55	109.27	109.27	0.47	0.47	0.08	132.26	72.81	1.09	132.26	72.81	1.09	0.55	0.3
EC	SUM	16	0.84	1.33	0.84	57.42	57.42	0.48	0.48	0.07	57.81	42.85	0.57	57.81	42.85	0.57	0.55	0.71
EC	FAL	15	0.8	1.33	0.68	65.46	71.24	0.52	0.57	0.23	90.63	50.97	0.65	94.31	55.04	0.71	0.71	0.46
EC	ALL	60	0.69	1.21	0.64	76.22	80.75	0.52	0.56	0.16	104.56	59.16	0.76	106.32	61.15	0.81	0.66	0.41
NACL	WIN	15	0.08	0.15	0.2	86.93	113.55	0.07	0.09	0.01	140.41	68.03	0.87	147.59	77.47	1.14	0.11	0.04
NACL	SPR	15	0.04	0.1	0.3	139.86	139.86	0.06	0.06	0	182.41	76.65	1.4	182.41	76.65	1.4	0.07	0.09
NACL	SUM	16	0.05	0.04	0.82	-21.73	28.85	-0.01	0.01	0	-18.3	-25.63	-0.28	28.46	34.12	0.37	0.02	0.67
NACL	FAL	15	0.03	0.07	0.52	99.48	99.48	0.03	0.03	0	120.39	64.42	0.99	120.39	64.42	0.99	0.04	0.28
NACL	ALL	61	0.05	0.09	0.4	72.18	95.15	0.04	0.05	0	104.19	44.7	0.72	118.22	62.69	0.95	0.07	0.16
NH4	WIN	15	1.61	1.48	0.87	-7.77	30.45	-0.13	0.49	0.33	7.86	0.38	-0.08	35.7	33.04	0.33	0.59	0.76
NH4	SPR	15	1.36	1.74	0.7	27.71	48.39	0.38	0.66	0.59	46.13	24.97	0.28	61.99	43.21	0.48	0.86	0.49
NH4	SUM	16	1.53	1.52	0.78	-0.74	31.77	-0.01	0.49	0.36	18.27	7.8	-0.01	41.4	34.93	0.32	0.6	0.62
NH4	FAL	15	0.8	1.09	0.94	36.54	39.55	0.29	0.32	0.09	146.54	40.15	0.37	152.11	46.81	0.4	0.42	0.88
NH4	ALL	61	1.33	1.46	0.78	9.87	36.72	0.13	0.49	0.38	54.1	18.15	0.1	72.29	39.42	0.37	0.63	0.61
NO3	WIN	15	3.43	3.64	0.73	5.98	35.87	0.21	1.23	2.26	14.11	4.49	0.06	38.6	34.97	0.36	1.52	0.54
NO3	SPR	15	2.01	2.87	0.64	42.81	71.17	0.86	1.43	2.71	81.84	34.2	0.43	102.41	59.24	0.71	1.86	0.41
NO3	SUM	16	0.87	0.91	0.76	5.54	42.98	0.05	0.37	0.42	6.07	-10.74	0.06	47.74	43.24	0.43	0.65	0.57
NO3	FAL	15	1.29	1.83	0.54	42.26	65.1	0.55	0.84	1.65	53.4	17.21	0.42	79.99	52.47	0.65	1.4	0.29
NO3	ALL	61	1.88	2.29	0.75	21.71	50.92	0.41	0.96	1.84	38.32	10.93	0.22	66.87	47.41	0.51	1.42	0.56
OC	WIN	14	1.99	4.63	0.62	132.71	132.71	2.64	2.64	1.93	176.59	84.05	1.33	176.59	84.05	1.33	2.98	0.38
OC	SPR	15	1.18	2.33	0.68	97.93	97.93	1.15	1.15	0.6	125.13	66.78	0.98	125.13	66.78	0.98	1.39	0.47
OC	SUM	16	2.18	2.96	0.79	35.36	36.52	0.77	0.8	0.48	42.44	30.45	0.35	43.18	31.21	0.37	1.04	0.62
OC	FAL	15	1.3	2.73	0.92	109.54	109.54	1.43	1.43	0.38	155.33	79.62	1.1	155.33	79.62	1.1	1.55	0.85
OC	ALL	60	1.67	3.13	0.69	88.02	88.42	1.47	1.47	1.3	122.64	64.33	0.88	122.83	64.53	0.88	1.86	0.47
PM-2.5	WIN	15	12.76	15.33	0.89	20.14	23.18	2.57	2.96	7.76	24.69	19.83	0.2	27.25	22.49	0.23	3.79	0.79
PM-2.5	SPR	15	9.76	12.68	0.74	29.96	36.19	2.92	3.53	13.3	33.92	24.21	0.3	40.52	31.39	0.36	4.67	0.55
PM-2.5	SUM	16	15.29	14.13	0.86	-7.61	17.68	-1.16	2.7	10.02	-5.76	-7.69	-0.08	16.22	17.27	0.19	3.37	0.73
PM-2.5	FAL	14	8.59	11.65	0.86	35.66	42.86	3.06	3.68	11.36	44.97	32.6	0.36	47.91	35.81	0.43	4.55	0.73
PM-2.5	ALL	60	11.71	13.49	0.81	15.18	27.34	1.78	3.2	13.76	23.61	16.56	0.15	32.45	26.43	0.27	4.11	0.66
SO4	WIN	15	1.99	1.16	0.87	-41.88	43.41	-0.83	0.86	0.81	-34.67	-45.86	-0.72	36.51	47.58	0.75	1.23	0.75
SO4	SPR	15	2.62	2.52	0.86	-3.86	21.43	-0.1	0.56	0.52	-3.18	-6.68	-0.04	22.92	22.99	0.22	0.73	0.75
SO4	SUM	16	4.42	3.68	0.81	-16.85	26.06	-0.74	1.15	1.79	-12.11	-16.5	-0.2	22.5	25.87	0.31	1.53	0.66
SO4	FAL	15	1.91	1.65	0.97	-13.33	19.42	-0.25	0.37	0.15	-8.57	-12.68	-0.15	24.44	25.6	0.22	0.46	0.94
SO4	ALL	61	2.76	2.28	0.87	-17.65	26.92	-0.49	0.74	0.93	-14.59	-20.37	-0.21	26.53	30.43	0.33	1.08	0.76

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390610040																		
EC	WIN	29	0.6	1.41	0.68	134.11	134.11	0.81	0.81	0.1	175.57	86.14	1.34	175.57	86.14	1.34	0.87	0.47
EC	SPR	30	0.49	0.94	0.55	90.89	97.32	0.45	0.48	0.1	131.01	68.71	0.91	133.37	71.58	0.97	0.55	0.3
EC	SUM	31	0.75	1.26	0.63	69.17	69.17	0.52	0.52	0.14	76.19	49.94	0.69	76.19	49.94	0.69	0.64	0.39
EC	FAL	30	0.62	1.17	0.68	90.26	91.46	0.56	0.56	0.1	121.32	67.82	0.9	121.79	68.31	0.91	0.64	0.47
EC	ALL	120	0.62	1.2	0.63	94.12	95.71	0.58	0.59	0.13	125.19	67.85	0.94	125.9	68.69	0.96	0.68	0.39
NACL	WIN	29	0.07	0.28	0.37	303.45	303.45	0.21	0.21	0.01	439.77	120.8	3.03	439.77	120.8	3.03	0.24	0.13
NACL	SPR	30	0.06	0.13	0.41	118.9	120.78	0.07	0.07	0.01	211.78	65.77	1.19	214.15	68.41	1.21	0.11	0.16
NACL	SUM	26	0.06	0.04	0.13	-31.11	52.24	-0.02	0.03	0	17.71	-26.71	-0.45	77.5	59.05	0.76	0.05	0.02
NACL	FAL	30	0.09	0.11	0.53	28.43	76.19	0.02	0.07	0.01	83.81	30.04	0.28	106.34	60.29	0.76	0.11	0.28
NACL	ALL	115	0.07	0.14	0.28	104.42	137.41	0.07	0.1	0.02	192.01	49.42	1.04	212.03	77.39	1.37	0.14	0.08
NH4	WIN	29	1.81	1.67	0.67	-7.73	31.45	-0.14	0.57	0.52	12.79	0.06	-0.08	40.82	34.77	0.34	0.73	0.45
NH4	SPR	30	1.37	1.32	0.69	-3.52	32.81	-0.05	0.45	0.36	11.18	0.59	-0.04	39.35	34.23	0.34	0.6	0.48
NH4	SUM	26	1.44	1.23	0.78	-14.64	25.41	-0.21	0.37	0.29	-6.47	-11.16	-0.17	22.33	24.95	0.3	0.58	0.61
NH4	FAL	30	0.69	0.91	0.78	31.4	47.21	0.22	0.33	0.13	134.82	41.92	0.31	143.39	52.47	0.47	0.42	0.61
NH4	ALL	115	1.32	1.28	0.76	-2.96	32.47	-0.04	0.43	0.35	39.85	8.58	-0.03	63.01	37.03	0.33	0.59	0.57
NO3	WIN	29	3.27	3.38	0.7	3.32	37.96	0.11	1.24	1.98	23.14	7.9	0.03	51.1	42.38	0.38	1.41	0.49
NO3	SPR	30	1.7	1.97	0.55	15.99	62.3	0.27	1.06	2.36	39.58	8.89	0.16	73.71	54.89	0.62	1.56	0.3
NO3	SUM	26	0.49	0.37	0.53	-24.37	51.23	-0.12	0.25	0.1	-24.27	-44.95	-0.32	51.87	62.77	0.68	0.33	0.28
NO3	FAL	30	0.79	0.93	0.6	18.27	53.57	0.14	0.42	0.34	27.97	0.17	0.18	66.51	55.79	0.54	0.6	0.36
NO3	ALL	115	1.58	1.69	0.78	6.88	47.74	0.11	0.76	1.24	17.97	-5.81	0.07	61.19	53.75	0.48	1.12	0.61
OC	WIN	29	1.65	4.51	0.57	173.09	173.09	2.86	2.86	1.66	208.16	93.44	1.73	208.16	93.44	1.73	3.13	0.32
OC	SPR	30	1.25	2.35	0.71	87.37	88.22	1.09	1.11	0.44	155.48	70.31	0.87	156.29	71.15	0.88	1.28	0.51
OC	SUM	31	1.94	3.02	0.73	55.98	58.38	1.08	1.13	0.55	61.97	43.12	0.56	63.78	45.08	0.58	1.31	0.53
OC	FAL	30	1.34	2.58	0.81	93.03	93.85	1.24	1.26	1.02	122.33	65.01	0.93	123.25	66.01	0.94	1.6	0.66
OC	ALL	120	1.55	3.1	0.63	100.54	101.67	1.56	1.57	1.45	135.76	67.55	1.01	136.67	68.51	1.02	1.97	0.39
PM-2.5	WIN	29	13.61	16.87	0.71	23.94	32.27	3.26	4.39	15.83	32.66	22.99	0.24	39.6	30.91	0.32	5.14	0.5
PM-2.5	SPR	30	10.94	11.49	0.68	5.04	29.3	0.55	3.2	16.51	17.33	10.23	0.05	33.6	29.27	0.29	4.1	0.46
PM-2.5	SUM	26	17.06	13.19	0.83	-22.68	24.25	-3.87	4.14	17.07	-19.18	-23.32	-0.29	21.33	25.33	0.31	5.66	0.68
PM-2.5	FAL	30	8.43	10.59	0.83	25.52	33.65	2.15	2.84	8.55	35.82	25.37	0.26	41.68	31.94	0.34	3.63	0.7
PM-2.5	ALL	115	12.34	12.99	0.72	5.28	29.32	0.65	3.62	21.31	17.76	9.81	0.05	34.45	29.49	0.29	4.66	0.52
SO4	WIN	29	2.64	1.77	0.71	-32.73	37.2	-0.86	0.98	0.97	-27.06	-36.76	-0.49	33.37	42.13	0.55	1.31	0.51
SO4	SPR	30	2.83	2.17	0.82	-23.25	28.36	-0.66	0.8	0.71	-17.1	-23.16	-0.3	27.2	31.18	0.37	1.07	0.67
SO4	SUM	26	5.13	3.68	0.75	-28.28	32.7	-1.45	1.68	3.69	-25.02	-32.79	-0.39	29.48	36.9	0.46	2.41	0.57
SO4	FAL	30	2.06	1.91	0.86	-7.09	27.35	-0.15	0.56	0.62	1.41	-4.95	-0.08	27.12	28.23	0.29	0.8	0.74
SO4	ALL	115	3.1	2.34	0.82	-24.37	31.7	-0.75	0.98	1.64	-16.57	-24.02	-0.32	29.25	34.47	0.42	1.49	0.67

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390811001																		
EC	WIN	15	0.73	0.59	0.25	-19.81	56.3	-0.15	0.41	0.42	20.94	1.41	-0.25	60.16	55.22	0.7	0.67	0.06
EC	SPR	15	0.82	0.45	0.39	-45.08	50.29	-0.37	0.41	0.21	-33.13	-48.16	-0.82	41.1	55.28	0.92	0.59	0.15
EC	SUM	16	1.13	0.49	0.65	-56.16	56.16	-0.63	0.63	0.1	-53.19	-74.15	-1.28	53.19	74.15	1.28	0.71	0.43
EC	FAL	15	0.86	0.47	0.82	-45.79	49.19	-0.39	0.42	0.13	-31.79	-46.21	-0.84	42.93	54.89	0.91	0.54	0.67
EC	ALL	61	0.89	0.5	0.39	-43.8	53.19	-0.39	0.47	0.25	-24.77	-42.31	-0.78	49.41	60.12	0.95	0.63	0.15
NACL	WIN	13	0.1	0.11	0.42	8.16	45.89	0.01	0.05	0	21.98	9.17	0.08	47.19	41.7	0.46	0.06	0.18
NACL	SPR	15	0.06	0.08	0.12	27.1	74.62	0.02	0.04	0	80.79	31.56	0.27	109.92	70.51	0.75	0.05	0.01
NACL	SUM	16	0.04	0.04	0.42	-13.13	31.5	-0.01	0.01	0	-5.02	-12.12	-0.15	31.78	33.76	0.36	0.02	0.18
NACL	FAL	12	0.05	0.06	0.73	38.75	58.88	0.02	0.03	0	37.09	21.91	0.39	55.44	44.47	0.59	0.04	0.53
NACL	ALL	56	0.06	0.07	0.54	13.84	52.63	0.01	0.03	0	33.26	11.82	0.14	61.36	47.74	0.53	0.04	0.29
NH4	WIN	13	2.28	0.91	0.75	-59.86	59.86	-1.36	1.36	1.09	-53.46	-77.2	-1.49	53.46	77.2	1.49	1.72	0.56
NH4	SPR	15	1.34	0.96	0.8	-28.29	32.85	-0.38	0.44	0.21	-31.42	-43.07	-0.39	34.69	46.08	0.46	0.59	0.65
NH4	SUM	16	1.62	1.01	0.83	-37.53	41.5	-0.61	0.67	0.29	-17.73	-35.11	-0.6	48.48	53.73	0.66	0.81	0.69
NH4	FAL	13	1.03	0.58	0.79	-43.93	54.97	-0.45	0.56	0.34	-6.75	-34.83	-0.78	67.55	66.58	0.98	0.74	0.62
NH4	ALL	57	1.56	0.88	0.68	-43.84	47.68	-0.68	0.74	0.6	-26.98	-46.74	-0.78	50.34	60	0.85	1.04	0.47
NO3	WIN	13	3.59	1.84	0.63	-48.79	54.63	-1.75	1.96	3.61	-34.54	-58.25	-0.95	53.76	70.08	1.07	2.58	0.39
NO3	SPR	15	0.97	1.03	0.57	6.92	66.13	0.07	0.64	1.02	-3.65	-42.27	0.07	73.03	78.91	0.66	1.01	0.32
NO3	SUM	16	0.36	0.15	0.46	-59.42	60.66	-0.22	0.22	0.02	-57.6	-87.39	-1.46	58.85	88.58	1.49	0.26	0.21
NO3	FAL	13	0.77	0.49	0.61	-36.83	55.29	-0.28	0.43	0.2	-18.23	-44.34	-0.58	60.14	73.09	0.88	0.53	0.37
NO3	ALL	57	1.35	0.84	0.68	-37.54	57.34	-0.51	0.77	1.62	-29.16	-59.05	-0.6	61.72	78.28	0.92	1.37	0.46
OC	WIN	15	1.87	2.55	0.28	36.85	65.78	0.69	1.23	1.91	74.47	38.4	0.37	87.85	56.17	0.66	1.54	0.08
OC	SPR	15	1.39	1.54	0.59	10.66	40.41	0.15	0.56	0.46	21.19	10.49	0.11	42.4	36.64	0.4	0.7	0.34
OC	SUM	16	2.39	2.04	0.38	-14.82	40.57	-0.35	0.97	1.36	4.21	-15	-0.17	51.23	44.83	0.48	1.22	0.15
OC	FAL	15	1.74	1.43	0.83	-17.78	28.79	-0.31	0.5	0.49	-1.56	-8.01	-0.22	29.42	29.19	0.35	0.76	0.69
OC	ALL	61	1.86	1.89	0.43	1.96	44.05	0.04	0.82	1.24	24.24	6.12	0.02	52.7	41.76	0.44	1.11	0.18
PM-2.5	WIN	13	18.89	9.41	0.72	-50.21	50.21	-9.49	9.49	41.54	-46.35	-63.29	-1.01	46.35	63.29	1.01	11.47	0.52
PM-2.5	SPR	15	11.24	7.98	0.82	-29.01	29.01	-3.26	3.26	7.31	-29.83	-39.14	-0.41	29.83	39.14	0.41	4.24	0.67
PM-2.5	SUM	16	18.83	10.21	0.59	-45.75	45.75	-8.61	8.61	39.53	-42.5	-57.38	-0.84	42.5	57.38	0.84	10.66	0.35
PM-2.5	FAL	13	10.76	6.22	0.77	-42.22	43.86	-4.54	4.72	15.73	-34.27	-45.99	-0.73	38.7	49.86	0.76	6.03	0.6
PM-2.5	ALL	57	15.01	8.53	0.7	-43.15	43.42	-6.47	6.52	33	-38.17	-51.33	-0.76	39.18	52.22	0.76	8.66	0.49
SO4	WIN	13	3.63	1.21	0.63	-66.64	66.64	-2.42	2.42	1.01	-65.74	-99.77	-2	65.74	99.77	2	2.62	0.39
SO4	SPR	15	3.54	2.02	0.89	-42.9	44.04	-1.52	1.56	1.14	-44.73	-62.01	-0.75	45.88	63.11	0.77	1.86	0.79
SO4	SUM	16	5.52	3.94	0.89	-28.57	29.71	-1.58	1.64	1.66	-27.13	-37.05	-0.4	30.93	40.45	0.42	2.04	0.8
SO4	FAL	13	2.99	1.51	0.77	-49.37	50.12	-1.47	1.5	1.52	-44.59	-62.89	-0.98	46.74	64.9	0.99	1.92	0.59
SO4	ALL	57	3.99	2.26	0.86	-43.37	44.2	-1.73	1.76	1.48	-44.55	-63.82	-0.77	46.41	65.52	0.78	2.12	0.73

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390933002																		
EC	WIN	9	0.42	0.63	0.66	49.13	52.67	0.21	0.22	0.02	75.28	44.63	0.49	77.36	46.8	0.53	0.25	0.44
EC	SPR	12	0.36	0.59	0.68	65.26	80.78	0.23	0.29	0.05	113.54	62.61	0.65	117.92	67.66	0.81	0.33	0.47
EC	SUM	15	0.74	0.71	0.74	-4.16	26.81	-0.03	0.2	0.06	14.67	5.81	-0.04	36.2	31.58	0.28	0.25	0.54
EC	FAL	12	0.55	0.74	0.9	34.03	38.95	0.19	0.22	0.03	59.64	39.57	0.34	62.95	43.09	0.39	0.25	0.81
EC	ALL	48	0.54	0.67	0.75	24.98	42.66	0.13	0.23	0.05	61.99	35.73	0.25	71.03	46.33	0.43	0.27	0.57
NACL	WIN	11	0.06	0.11	0.11	82.11	95.79	0.05	0.06	0	2656.62	60.62	0.82	2665.2	70.56	0.96	0.07	0.01
NACL	SPR	14	0.05	0.08	0.61	51.32	64.62	0.03	0.03	0	56.05	23.13	0.51	76.74	50.94	0.65	0.05	0.37
NACL	SUM	15	0.05	0.03	0.69	-43.09	49.47	-0.02	0.03	0	-25.9	-39.92	-0.76	39.44	51.36	0.87	0.04	0.48
NACL	FAL	10	0.04	0.05	0.2	8.78	39.52	0	0.02	0	16.93	5.05	0.09	41.52	36.47	0.4	0.02	0.04
NACL	ALL	50	0.05	0.06	0.32	22.45	63.41	0.01	0.03	0	595.77	8.85	0.22	627.97	52.49	0.63	0.05	0.1
NH4	WIN	11	1.21	1.07	0.86	-11.49	36.04	-0.14	0.44	0.4	16.1	3.91	-0.13	42.32	34.38	0.41	0.65	0.74
NH4	SPR	14	0.92	1.43	0.79	55.94	66.49	0.51	0.61	0.43	71.7	36.84	0.56	80.93	47.72	0.66	0.83	0.62
NH4	SUM	15	0.94	1.06	0.94	12.64	27.17	0.12	0.26	0.08	217.25	43.02	0.13	224.07	50.54	0.27	0.31	0.89
NH4	FAL	11	0.57	0.95	0.83	67.68	68.57	0.38	0.39	0.07	306.75	69.31	0.68	307.37	69.94	0.69	0.47	0.69
NH4	ALL	51	0.91	1.14	0.74	25.05	46.11	0.23	0.42	0.31	153.21	38.56	0.25	163.54	50.46	0.46	0.6	0.54
NO3	WIN	11	2.42	2.44	0.82	1.07	34.15	0.03	0.82	0.97	10.45	-5.07	0.01	45.78	39.91	0.34	0.98	0.67
NO3	SPR	14	1.42	2.13	0.81	49.4	71.9	0.7	1.02	2.11	45.97	21.48	0.49	65.84	45.55	0.72	1.61	0.65
NO3	SUM	15	0.5	0.38	0.89	-22.86	33.89	-0.11	0.17	0.04	-30.05	-44.19	-0.3	38.59	51.87	0.44	0.23	0.79
NO3	FAL	11	0.97	1.25	0.74	28.92	53.59	0.28	0.52	0.44	70.01	20.09	0.29	97.06	56.43	0.54	0.72	0.55
NO3	ALL	51	1.27	1.49	0.81	17.79	48.96	0.23	0.62	1	21.14	-3.86	0.18	60.23	48.54	0.49	1.02	0.66
OC	WIN	9	1.38	2.25	0.87	63.41	63.41	0.87	0.87	0.22	100.7	57.08	0.63	100.7	57.08	0.63	0.99	0.75
OC	SPR	12	0.95	1.63	0.77	71.73	75.28	0.68	0.71	0.29	101.46	60.33	0.72	102.52	61.42	0.75	0.87	0.59
OC	SUM	15	2.44	2	0.54	-18.28	28.59	-0.45	0.7	1.18	-8.84	-15.72	-0.22	23.97	27.94	0.35	1.17	0.29
OC	FAL	12	1.35	1.65	0.84	21.93	34.01	0.3	0.46	0.18	36.28	27.56	0.22	42.59	34.62	0.34	0.52	0.71
OC	ALL	48	1.6	1.86	0.62	16.82	42.3	0.27	0.68	0.8	50.55	27.76	0.17	62.65	43.44	0.42	0.93	0.38
PM-2.5	WIN	11	9.15	9.53	0.78	4.13	23.2	0.38	2.12	8.71	15.7	8.37	0.04	29.67	25.13	0.23	2.98	0.61
PM-2.5	SPR	14	8.35	10.49	0.74	25.6	42.29	2.14	3.53	15.2	27.44	14.96	0.26	46.05	38.52	0.42	4.45	0.54
PM-2.5	SUM	16	10.29	10.62	0.38	3.2	54.35	0.33	5.59	55.9	870.38	25.23	0.03	903.29	64.46	0.54	7.48	0.14
PM-2.5	FAL	12	9.34	9.37	0.78	0.34	27.12	0.03	2.53	9.6	48.07	11.25	0	67.94	34.31	0.27	3.1	0.6
PM-2.5	ALL	53	9.33	10.08	0.54	8.04	38.98	0.75	3.64	25.58	284.15	15.85	0.08	306.4	42.62	0.39	5.11	0.29
SO4	WIN	11	1.72	1.06	0.73	-38.14	43.92	-0.66	0.76	0.96	-26.32	-35.95	-0.62	33.62	42.03	0.71	1.18	0.54
SO4	SPR	14	2.16	2.48	0.78	15.08	43.4	0.33	0.94	1.46	21.79	3.37	0.15	53.6	44.56	0.43	1.25	0.61
SO4	SUM	15	3.47	3.26	0.78	-5.93	30.09	-0.21	1.04	2.04	19.54	4.86	-0.06	44.76	33.39	0.32	1.44	0.61
SO4	FAL	11	1.69	1.74	0.96	2.92	13.79	0.05	0.23	0.08	12.81	9.13	0.03	20.6	17.35	0.14	0.29	0.92
SO4	ALL	51	2.35	2.25	0.77	-4.35	33.1	-0.1	0.78	1.35	8.82	-3.43	-0.05	39.57	34.86	0.35	1.17	0.6

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390950026																		
EC	WIN	15	0.42	0.69	0.61	63.71	65.64	0.27	0.28	0.02	85.79	53.52	0.64	86.89	54.67	0.66	0.31	0.37
EC	SPR	15	0.44	0.71	0.35	59.25	69.35	0.26	0.31	0.07	92.08	51.27	0.59	96.31	56.28	0.69	0.37	0.12
EC	SUM	14	0.74	0.62	0.25	-16.03	35.16	-0.12	0.26	0.07	-2.28	-11.38	-0.19	38.73	39.11	0.42	0.29	0.06
EC	FAL	14	0.78	0.87	0.83	12.13	33.66	0.09	0.26	0.09	38.45	22.84	0.12	52.44	39.65	0.34	0.32	0.69
EC	ALL	58	0.59	0.72	0.63	22.33	46.98	0.13	0.28	0.09	54.73	29.87	0.22	69.39	47.71	0.47	0.32	0.39
NACL	WIN	15	0.09	0.15	0.45	59.74	69.81	0.06	0.07	0	93.65	44.57	0.6	99.08	50.73	0.7	0.08	0.21
NACL	SPR	15	0.08	0.16	0.57	111.67	120.19	0.09	0.09	0	201.55	68.67	1.12	209.69	78.09	1.2	0.11	0.32
NACL	SUM	12	0.07	0.05	0.1	-22.17	66.38	-0.02	0.05	0	-6.86	-39.53	-0.28	72.72	73.9	0.85	0.06	0.01
NACL	FAL	9	0.07	0.1	0.22	45.3	85.93	0.03	0.06	0.01	73.78	30	0.45	98.05	60.95	0.86	0.08	0.05
NACL	ALL	51	0.08	0.12	0.4	55.13	85.9	0.04	0.07	0.01	98.23	29.3	0.55	125.23	66.03	0.86	0.09	0.16
NH4	WIN	15	1.42	1.25	0.8	-12.05	49.31	-0.17	0.7	0.8	40.59	10.02	-0.14	74.23	52.96	0.56	0.91	0.64
NH4	SPR	15	1.49	1.79	0.72	19.92	40.86	0.3	0.61	0.8	38.73	17.99	0.2	56.66	39.37	0.41	0.94	0.52
NH4	SUM	12	1.24	1.27	0.81	2.03	31.9	0.03	0.4	0.28	20.11	10.57	0.02	38.11	32.69	0.32	0.53	0.65
NH4	FAL	9	0.59	0.93	0.67	57.64	65.8	0.34	0.39	0.17	156.76	54	0.58	163.99	62.63	0.66	0.54	0.45
NH4	ALL	51	1.25	1.35	0.71	8.23	43.65	0.1	0.55	0.61	55.72	20.26	0.08	76.4	45.9	0.44	0.79	0.51
NO3	WIN	15	3.14	3.09	0.85	-1.6	30.6	-0.05	0.96	1.39	14.31	-0.86	-0.02	44.6	38.25	0.31	1.18	0.72
NO3	SPR	15	2.22	3.01	0.81	35.87	55.89	0.8	1.24	2.27	68.65	25	0.36	91.29	54.1	0.56	1.7	0.65
NO3	SUM	12	0.74	0.84	0.86	13.14	62.14	0.1	0.46	0.42	-10.97	-40.61	0.13	63.87	72.12	0.62	0.66	0.74
NO3	FAL	9	1.63	1.94	0.4	18.47	54.51	0.3	0.89	1.43	32.95	-4.31	0.18	76.97	53.75	0.55	1.23	0.16
NO3	ALL	51	2.04	2.33	0.82	14.48	44.76	0.3	0.91	1.55	27.64	-3.22	0.14	68.58	53.62	0.45	1.28	0.67
OC	WIN	15	1.23	2.99	0.82	142.78	142.78	1.76	1.76	0.36	173.98	88.15	1.43	173.98	88.15	1.43	1.86	0.67
OC	SPR	15	1.03	2.01	0.65	95.32	95.32	0.98	0.98	0.35	135.65	66.32	0.95	135.65	66.32	0.95	1.15	0.42
OC	SUM	14	2.01	2.01	0.71	-0.34	28.7	-0.01	0.58	0.49	0.02	-5.29	0	28.28	28.58	0.29	0.7	0.5
OC	FAL	14	1.52	2.11	0.77	38.88	47.64	0.59	0.72	0.42	81.15	46.64	0.39	86.14	52.18	0.48	0.87	0.59
OC	ALL	58	1.44	2.29	0.54	59.09	71.14	0.85	1.02	0.81	99.67	49.93	0.59	107.7	59.44	0.71	1.24	0.29
PM-2.5	WIN	15	10.06	11.3	0.85	12.35	21.94	1.24	2.21	8.53	30.39	19.73	0.12	35.61	25.28	0.22	3.17	0.73
PM-2.5	SPR	15	10.42	12.28	0.8	17.84	30.63	1.86	3.19	13.19	20.43	12.27	0.18	35.72	29.67	0.31	4.08	0.64
PM-2.5	SUM	12	14.17	10.62	0.68	-25.07	32.53	-3.55	4.61	27.11	-21.84	-29.26	-0.33	30.19	36.54	0.43	6.3	0.46
PM-2.5	FAL	9	9.92	9.61	0.62	-3.15	29.11	-0.31	2.89	25.55	11.1	5.21	-0.03	25.55	24.39	0.3	5.06	0.38
PM-2.5	ALL	51	11.11	11.13	0.67	0.2	28.64	0.02	3.18	21.73	11.77	3.45	0	32.59	29.06	0.29	4.66	0.45
SO4	WIN	15	1.74	0.92	0.71	-46.96	51.5	-0.82	0.9	1.37	-33.89	-47.28	-0.89	42.24	53.64	0.97	1.43	0.5
SO4	SPR	15	2.66	2.51	0.64	-5.65	33.12	-0.15	0.88	2.05	1.16	-10.68	-0.06	35.34	31.78	0.35	1.44	0.41
SO4	SUM	12	3.75	2.97	0.76	-20.63	26.93	-0.77	1.01	1.77	-16.36	-21.99	-0.26	24.43	29.48	0.34	1.54	0.58
SO4	FAL	9	1.26	1.06	0.86	-16.47	23.5	-0.21	0.3	0.11	-17.83	-23.93	-0.2	24.83	30.21	0.28	0.39	0.75
SO4	ALL	51	2.4	1.89	0.73	-20.99	33.88	-0.5	0.81	1.54	-16.62	-26.44	-0.27	32.95	37.39	0.43	1.34	0.54

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 390990014																		
EC	WIN	15	0.55	0.74	0.52	33.99	67.82	0.19	0.38	0.15	80.01	44.64	0.34	92.94	60.67	0.68	0.43	0.27
EC	SPR	14	0.62	0.57	0.75	-7.69	28.42	-0.05	0.18	0.04	6.72	-0.68	-0.08	34.53	31.85	0.31	0.2	0.57
EC	SUM	15	0.94	0.67	0.73	-28.29	33.52	-0.26	0.31	0.14	-17.52	-23.68	-0.39	27.88	32.93	0.47	0.46	0.53
EC	FAL	15	0.68	0.65	0.63	-3.9	38.9	-0.03	0.26	0.1	27.64	9.31	-0.04	55.53	42.16	0.4	0.31	0.4
EC	ALL	59	0.7	0.66	0.57	-5.36	40.71	-0.04	0.28	0.13	24.51	7.53	-0.06	53.03	42.07	0.43	0.37	0.32
NACL	WIN	13	0.16	0.15	0.27	-2.59	44.25	0	0.07	0.01	20.13	1.81	-0.03	50.78	40.17	0.45	0.1	0.07
NACL	SPR	14	0.07	0.1	0.47	54.53	65.02	0.04	0.04	0	68.76	36.58	0.55	77.06	46.17	0.65	0.06	0.22
NACL	SUM	16	0.04	0.04	0.21	1.07	44.21	0	0.02	0	26.59	-4.95	0.01	61.72	37.34	0.44	0.03	0.04
NACL	FAL	14	0.04	0.06	0.41	61.16	73.19	0.02	0.03	0	82.64	44.67	0.61	91.66	55.37	0.73	0.04	0.17
NACL	ALL	57	0.07	0.09	0.58	19.37	52.79	0.01	0.04	0	49.24	18.98	0.19	70.35	44.58	0.53	0.06	0.34
NH4	WIN	13	1.3	1	0.85	-22.78	36.37	-0.3	0.47	0.21	-8.26	-16.9	-0.3	38.56	40.16	0.47	0.54	0.72
NH4	SPR	14	0.94	1.1	0.73	16.68	45.37	0.16	0.43	0.51	9.52	-2.08	0.17	35.53	29.07	0.45	0.73	0.53
NH4	SUM	15	1.15	1.12	0.79	-2.72	36.06	-0.03	0.42	0.26	28.66	14.55	-0.03	51.91	41.97	0.37	0.51	0.62
NH4	FAL	14	0.76	0.77	0.64	0.95	40.68	0.01	0.31	0.17	89.22	15.51	0.01	113.56	47.26	0.41	0.42	0.41
NH4	ALL	56	1.03	1	0.68	-3.47	39.12	-0.04	0.4	0.31	30.44	3.33	-0.04	60.13	39.65	0.41	0.56	0.46
NO3	WIN	13	2.7	2.14	0.82	-20.81	31.82	-0.56	0.86	0.93	-12.67	-22.24	-0.26	34.97	39.02	0.4	1.12	0.67
NO3	SPR	14	1.15	1.57	0.51	36.16	93.1	0.42	1.07	2.93	26.55	-8.62	0.36	78.91	63.99	0.93	1.76	0.26
NO3	SUM	15	0.49	0.31	0.66	-37.1	54.4	-0.18	0.27	0.06	-44.09	-72.75	-0.59	59.36	82.88	0.86	0.31	0.43
NO3	FAL	14	0.96	0.89	0.3	-7.49	58.87	-0.07	0.57	0.55	26.7	-18.12	-0.08	86.23	71.11	0.64	0.75	0.09
NO3	ALL	56	1.29	1.2	0.66	-7.23	52.9	-0.09	0.68	1.22	-1.44	-31.33	-0.08	65.3	65.03	0.57	1.11	0.43
OC	WIN	15	1.44	2.53	0.48	75.4	84.88	1.09	1.22	0.92	120.66	62	0.75	124.12	65.93	0.85	1.45	0.23
OC	SPR	14	1.15	1.54	0.77	34.02	38.7	0.39	0.44	0.2	48.07	31.28	0.34	52.41	36.09	0.39	0.6	0.59
OC	SUM	15	2.07	1.91	0.65	-7.88	28.66	-0.16	0.59	0.52	1.76	-3	-0.09	27.01	27.04	0.31	0.74	0.42
OC	FAL	15	1.31	1.53	0.79	16.79	34.82	0.22	0.46	0.25	57.97	31.84	0.17	67.63	43.11	0.35	0.55	0.62
OC	ALL	59	1.5	1.88	0.54	25.59	45.61	0.38	0.68	0.69	57.27	30.52	0.26	68.05	43.16	0.46	0.91	0.29
PM-2.5	WIN	13	12.31	9.61	0.83	-21.93	28.89	-2.7	3.56	11.67	-15.05	-20.72	-0.28	27.71	31.03	0.37	4.35	0.68
PM-2.5	SPR	14	8.82	8.46	0.74	-4.12	36.35	-0.36	3.21	15.51	-9.61	-16.97	-0.04	34.17	35.85	0.38	3.96	0.55
PM-2.5	SUM	16	15.63	10.24	0.82	-34.52	34.98	-5.4	5.47	14.64	-32.94	-41.52	-0.53	33.41	41.98	0.53	6.61	0.67
PM-2.5	FAL	14	8.33	7.47	0.82	-10.27	25.98	-0.86	2.16	6.18	3.32	-2.67	-0.11	30.25	28.67	0.29	2.63	0.68
PM-2.5	ALL	57	11.41	8.98	0.73	-21.3	32.13	-2.43	3.66	16.24	-14.22	-21.2	-0.27	31.52	34.71	0.41	4.71	0.53
SO4	WIN	13	2.12	1.1	0.7	-48.3	50.85	-1.02	1.08	0.58	-44.23	-60.76	-0.93	47.69	63.87	0.98	1.27	0.49
SO4	SPR	14	2.14	1.87	0.52	-12.73	45.49	-0.27	0.97	2.05	-17.91	-32.67	-0.15	44.57	48.19	0.52	1.46	0.27
SO4	SUM	15	3.85	3.36	0.9	-12.86	22.45	-0.5	0.87	1.18	-5.31	-8.91	-0.15	22.39	23.46	0.26	1.2	0.81
SO4	FAL	14	2.09	1.59	0.92	-23.7	28.73	-0.5	0.6	0.28	-16.13	-23.33	-0.31	31.55	35.83	0.38	0.73	0.84
SO4	ALL	56	2.58	2.02	0.81	-21.78	33.91	-0.56	0.88	1.11	-20.2	-30.49	-0.28	36.1	42.12	0.43	1.19	0.66

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 391130032																		
EC	WIN	7	0.55	1.02	0.85	86.76	86.76	0.48	0.48	0.03	108.39	66.23	0.87	108.39	66.23	0.87	0.51	0.72
EC	SPR	15	0.54	0.78	0.33	46.26	64.39	0.25	0.34	0.11	85.8	47.74	0.46	93.04	56.97	0.64	0.41	0.11
EC	SUM	16	0.8	1.08	0.71	34.1	40	0.27	0.32	0.06	36.8	28.43	0.34	40.91	33.14	0.4	0.37	0.51
EC	FAL	15	0.69	1	0.75	44.38	57.75	0.31	0.4	0.12	81.53	47.87	0.44	88.45	55.85	0.58	0.46	0.56
EC	ALL	53	0.66	0.97	0.68	45.68	55.94	0.3	0.37	0.09	72.78	44.39	0.46	78.03	50.68	0.56	0.43	0.46
NACL	WIN	7	0.05	0.2	0.62	260.58	260.58	0.14	0.14	0.01	330.91	104.88	2.61	330.91	104.88	2.61	0.17	0.38
NACL	SPR	15	0.06	0.12	0.06	104.12	114.89	0.06	0.07	0	162.2	63.7	1.04	169.34	71.84	1.15	0.09	0
NACL	SUM	16	0.06	0.05	0.21	-23.87	48.11	-0.01	0.03	0	-8.8	-27.9	-0.31	48.31	56.02	0.63	0.04	0.05
NACL	FAL	15	0.05	0.07	0.73	50.01	54	0.02	0.03	0	80.37	44.72	0.5	82.67	47.16	0.54	0.03	0.53
NACL	ALL	53	0.06	0.09	0.26	69.55	97.36	0.04	0.05	0.01	109.7	36.11	0.7	129.61	64.44	0.97	0.08	0.07
NH4	WIN	7	1.1	1.39	0.91	25.61	27.76	0.28	0.31	0.08	79.81	38.16	0.26	80.8	39.17	0.28	0.41	0.82
NH4	SPR	15	1.57	1.71	0.53	8.66	40.28	0.14	0.63	1.04	31.8	11	0.09	49.46	32.41	0.4	1.03	0.28
NH4	SUM	16	1.47	1.59	0.85	8.34	27.73	0.12	0.41	0.23	26.77	17.12	0.08	38.6	30.59	0.28	0.5	0.72
NH4	FAL	15	0.76	1.08	0.88	42.42	47.06	0.32	0.36	0.19	114.58	40.84	0.42	118.58	45.22	0.47	0.54	0.78
NH4	ALL	53	1.25	1.45	0.73	16.33	35.53	0.2	0.44	0.44	60.05	24.88	0.16	69.88	36.38	0.36	0.69	0.53
NO3	WIN	7	2.28	3.12	0.89	37.1	42.97	0.84	0.98	0.79	28.28	18.46	0.37	42.86	35.22	0.43	1.23	0.78
NO3	SPR	15	2.38	2.95	0.7	24.15	50.95	0.57	1.21	2.78	60.79	26.03	0.24	77.62	45.03	0.51	1.76	0.49
NO3	SUM	16	0.73	0.89	0.56	21.64	61.62	0.16	0.45	0.59	14.55	-5.36	0.22	55.72	48.64	0.62	0.78	0.31
NO3	FAL	15	1.19	1.52	0.57	27.79	52.51	0.33	0.63	1.19	30.56	2.99	0.28	63.3	47.81	0.53	1.14	0.32
NO3	ALL	53	1.53	1.95	0.74	27.13	51.26	0.42	0.78	1.46	33.98	9.04	0.27	62.37	45.61	0.51	1.28	0.55
OC	WIN	7	1.49	3.37	0.81	126.38	126.38	1.88	1.88	0.95	155.5	81.21	1.26	155.5	81.21	1.26	2.12	0.66
OC	SPR	15	1.39	2.15	0.64	54.91	59.06	0.76	0.82	0.48	95.45	50.64	0.55	97.86	53.16	0.59	1.03	0.41
OC	SUM	16	2.36	2.71	0.82	14.93	28.82	0.35	0.68	0.46	20.18	14.73	0.15	30.98	27.58	0.29	0.76	0.68
OC	FAL	15	1.55	2.24	0.85	44.16	52.5	0.69	0.81	0.33	84.13	50.28	0.44	87.98	54.48	0.52	0.9	0.73
OC	ALL	53	1.74	2.5	0.74	43.92	52.65	0.76	0.92	0.71	77.46	43.73	0.44	82.49	49.51	0.53	1.14	0.54
PM-2.5	WIN	7	9.93	13.13	0.96	32.29	32.29	3.21	3.21	6.5	28.57	23.56	0.32	28.57	23.56	0.32	4.1	0.92
PM-2.5	SPR	14	11.6	12.2	0.53	5.18	34.57	0.6	4.01	30.73	20.42	9.29	0.05	39.42	32.03	0.35	5.58	0.28
PM-2.5	SUM	16	15.53	13.78	0.83	-11.24	17.56	-1.74	2.73	13.01	-9.83	-11.7	-0.13	14.95	16.4	0.2	4.01	0.7
PM-2.5	FAL	15	9.51	10.51	0.56	10.45	39.97	0.99	3.8	29.6	24.26	14.13	0.1	40.56	36.19	0.4	5.53	0.32
PM-2.5	ALL	52	11.98	12.32	0.67	2.86	28.77	0.34	3.45	24.27	13.32	6.15	0.03	30.76	27.28	0.29	4.94	0.45
SO4	WIN	7	1.75	1.22	0.92	-30.63	31.18	-0.54	0.55	0.43	-25.02	-30.57	-0.44	25.89	31.43	0.45	0.85	0.85
SO4	SPR	15	2.83	2.35	0.34	-16.65	33.76	-0.47	0.95	2.46	-8.63	-18.32	-0.2	31.68	33.57	0.41	1.64	0.12
SO4	SUM	16	4.47	4.01	0.75	-10.47	29.19	-0.47	1.31	2.96	-1.77	-6.12	-0.12	24.27	25.95	0.33	1.78	0.56
SO4	FAL	15	1.84	1.83	0.96	-0.42	17.18	-0.01	0.32	0.18	-0.92	-4.41	0	20.21	21.23	0.17	0.43	0.93
SO4	ALL	53	2.9	2.55	0.79	-11.98	28.46	-0.35	0.83	1.75	-6.54	-12.32	-0.14	25.43	27.49	0.32	1.37	0.62

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 391351001																		
EC	WIN	28	0.52	0.61	0.8	17.54	26.77	0.09	0.14	0.03	29.19	18.97	0.18	37.52	28.7	0.27	0.18	0.63
EC	SPR	31	0.59	0.4	0.68	-32.37	41.79	-0.19	0.25	0.09	-11.09	-22.94	-0.48	40.23	44.08	0.62	0.36	0.46
EC	SUM	26	0.81	0.43	0.76	-46.51	47.28	-0.38	0.38	0.06	-40.41	-54.65	-0.87	42.98	56.86	0.88	0.45	0.57
EC	FAL	28	0.67	0.54	0.72	-18.99	39.75	-0.13	0.26	0.12	6.29	-6.92	-0.23	43.91	41.26	0.49	0.37	0.51
EC	ALL	113	0.64	0.49	0.57	-23.08	39.86	-0.15	0.26	0.1	-3.55	-15.88	-0.3	41.1	42.51	0.52	0.36	0.32
NACL	WIN	27	0.09	0.12	0.34	32.72	71.46	0.03	0.07	0.01	322.44	39.09	0.33	343.04	66.08	0.71	0.08	0.12
NACL	SPR	31	0.05	0.11	0.41	108.19	115.79	0.06	0.06	0	170.72	70.57	1.08	173.99	74.32	1.16	0.09	0.17
NACL	SUM	29	0.05	0.04	0.1	-21.89	50.81	-0.01	0.02	0	12.8	-18.06	-0.28	61.67	51.87	0.65	0.04	0.01
NACL	FAL	28	0.06	0.08	0.7	43.86	82.55	0.02	0.05	0.01	103.96	26.18	0.44	132.02	66.11	0.83	0.08	0.5
NACL	ALL	115	0.06	0.09	0.46	42.22	80.28	0.03	0.05	0.01	150.26	30.02	0.42	175.14	64.73	0.8	0.08	0.21
NH4	WIN	28	1.87	1.55	0.72	-17.21	30.57	-0.32	0.57	0.57	-5.38	-13.91	-0.21	32.6	34.81	0.37	0.82	0.52
NH4	SPR	31	1.4	1.83	0.49	30.58	44.47	0.43	0.62	0.82	81.16	27.8	0.31	91.96	39.6	0.44	1	0.24
NH4	SUM	30	1.29	1.32	0.81	2.43	30.66	0.03	0.39	0.25	21.95	11.1	0.02	40.49	34.42	0.31	0.5	0.66
NH4	FAL	28	0.73	1.06	0.79	44.82	51.62	0.33	0.38	0.18	191.25	49.91	0.45	195.02	53.99	0.52	0.53	0.62
NH4	ALL	117	1.32	1.45	0.66	9.31	37.28	0.12	0.49	0.54	71.61	18.83	0.09	89.22	40.57	0.37	0.75	0.44
NO3	WIN	28	3.68	3.58	0.72	-2.66	37.69	-0.1	1.39	2.63	12.82	-2.49	-0.03	49.48	45.42	0.39	1.62	0.52
NO3	SPR	31	2.1	3.53	0.68	68.65	73.07	1.44	1.53	2.58	117.45	51.01	0.69	123.1	57.31	0.73	2.16	0.47
NO3	SUM	30	0.78	0.91	0.77	16.89	42.35	0.13	0.33	0.25	9.56	-4.76	0.17	43.64	39.97	0.42	0.52	0.6
NO3	FAL	28	0.9	1.51	0.64	66.76	85.78	0.6	0.78	1.33	74.77	27.51	0.67	98.3	59.47	0.86	1.3	0.41
NO3	ALL	117	1.85	2.39	0.74	28.93	54.41	0.54	1.01	2.05	54.53	18.28	0.29	79.17	50.54	0.54	1.53	0.55
OC	WIN	27	1.44	2.62	0.81	82.18	82.18	1.18	1.18	0.36	99	60.26	0.82	99	60.26	0.82	1.32	0.66
OC	SPR	31	1.17	1.54	0.72	31.89	43.87	0.37	0.51	0.29	66.22	36.49	0.32	73.56	45	0.44	0.66	0.51
OC	SUM	26	1.69	1.93	0.71	13.96	35.28	0.24	0.6	0.51	22.77	12.83	0.14	39.25	32.53	0.35	0.75	0.51
OC	FAL	27	1.14	1.83	0.85	61.1	65	0.69	0.74	0.58	103.69	50.03	0.61	108.82	56.36	0.65	1.03	0.72
OC	ALL	111	1.35	1.97	0.72	45.66	55.62	0.62	0.75	0.56	73.13	40.02	0.46	80.29	48.55	0.56	0.97	0.51
PM-2.5	WIN	27	12.94	12.07	0.83	-6.75	19.54	-0.87	2.53	9.46	-4.74	-9.37	-0.07	21.66	24.21	0.21	3.2	0.7
PM-2.5	SPR	31	10.74	11.37	0.46	5.88	32.28	0.63	3.47	24.5	21.84	8.55	0.06	40.55	32.71	0.32	4.99	0.21
PM-2.5	SUM	29	13.24	9.86	0.8	-25.57	27.31	-3.39	3.62	16.15	-20.49	-25.45	-0.34	23.13	27.99	0.37	5.25	0.65
PM-2.5	FAL	28	8.37	9	0.81	7.51	30.19	0.63	2.53	9.73	83.34	10.88	0.08	102.02	33.33	0.3	3.18	0.66
PM-2.5	ALL	115	11.31	10.57	0.7	-6.5	27.01	-0.74	3.06	18	19.9	-3.66	-0.07	46.69	29.67	0.29	4.31	0.49
SO4	WIN	28	2.46	1.5	0.79	-38.87	38.93	-0.95	0.96	0.52	-39.18	-53.45	-0.64	39.28	53.55	0.64	1.2	0.63
SO4	SPR	31	2.62	2.22	0.43	-15.4	35.79	-0.4	0.94	1.69	-3.59	-16.86	-0.18	39.76	37.12	0.42	1.36	0.19
SO4	SUM	30	3.79	3.01	0.77	-20.7	32.48	-0.78	1.23	2.58	-11.68	-18.94	-0.26	28.69	33.97	0.41	1.79	0.59
SO4	FAL	28	2.08	1.81	0.92	-13.09	21.5	-0.27	0.45	0.35	-6.56	-10.83	-0.15	21.67	23.14	0.25	0.65	0.84
SO4	ALL	117	2.75	2.15	0.76	-21.86	32.7	-0.6	0.9	1.39	-14.89	-24.71	-0.28	32.48	36.9	0.42	1.32	0.58

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 391510017																		
EC	WIN	12	0.53	0.77	0.46	44.12	50.42	0.24	0.27	0.05	60.2	39.99	0.44	63.51	43.59	0.5	0.32	0.21
EC	SPR	15	0.56	0.63	0.41	11.87	47.03	0.07	0.27	0.14	35.03	21.15	0.12	50.16	40.33	0.47	0.38	0.17
EC	SUM	16	0.97	0.81	0.61	-16.84	24.53	-0.16	0.24	0.08	-9.74	-13.66	-0.2	21.76	24.35	0.29	0.33	0.37
EC	FAL	15	0.77	0.71	0.74	-8.09	31.14	-0.06	0.24	0.14	10.28	3.23	-0.09	32.65	30.41	0.34	0.38	0.55
EC	ALL	58	0.72	0.73	0.59	0.69	34.85	0.01	0.25	0.13	21.49	10.81	0.01	40.56	34.03	0.35	0.36	0.35
NACL	WIN	13	0.2	0.17	0.22	-16.19	58.63	-0.03	0.12	0.02	34.51	4.82	-0.19	74.7	60.37	0.7	0.16	0.05
NACL	SPR	13	0.1	0.1	0.13	-1.99	58.32	0	0.06	0.01	40.24	6.37	-0.02	73.51	51.56	0.6	0.08	0.02
NACL	SUM	7	0.08	0.07	0.7	-17.72	30.99	-0.01	0.02	0	-3.09	-13.4	-0.22	36.74	38.53	0.38	0.04	0.48
NACL	FAL	15	0.16	0.08	0.11	-49.89	72.98	-0.08	0.12	0.06	23.08	-13.69	-1	72.54	63.22	1.46	0.25	0.01
NACL	ALL	48	0.14	0.11	0.23	-25.59	61.44	-0.04	0.09	0.03	27.01	-3.2	-0.34	68.17	55.69	0.83	0.17	0.05
NH4	WIN	13	1.57	1.29	0.86	-17.48	35.65	-0.27	0.56	0.37	0.09	-8.82	-0.21	38.21	38.72	0.43	0.66	0.74
NH4	SPR	13	1.08	1.37	0.86	27.27	35.08	0.29	0.38	0.36	25.4	16.89	0.27	35	27.46	0.35	0.67	0.74
NH4	SUM	8	1.05	1.6	0.84	51.53	55.98	0.54	0.59	0.42	96.08	51.9	0.52	100.15	56.34	0.56	0.84	0.71
NH4	FAL	15	0.82	0.97	0.71	18.12	45.21	0.15	0.37	0.2	319.13	30.68	0.18	337.72	53.63	0.45	0.47	0.5
NH4	ALL	49	1.13	1.26	0.74	12.39	40.75	0.14	0.46	0.4	120.14	20.01	0.12	139.16	43.17	0.41	0.65	0.55
NO3	WIN	13	3.09	2.85	0.77	-7.63	36.5	-0.24	1.13	1.7	6.75	-5.9	-0.08	44.86	43.05	0.4	1.33	0.59
NO3	SPR	13	1.52	1.97	0.75	29.36	60.79	0.45	0.93	3.17	9.41	-4.18	0.29	43.25	37.58	0.61	1.84	0.56
NO3	SUM	8	0.68	0.97	0.89	42.11	72.88	0.29	0.5	0.4	23.62	-8.1	0.42	74.46	69.02	0.73	0.7	0.79
NO3	FAL	15	1.21	1.44	0.58	19.72	50.54	0.24	0.61	0.61	36.31	5.44	0.2	72.18	53.36	0.51	0.82	0.33
NO3	ALL	49	1.7	1.88	0.72	10.33	47.69	0.18	0.81	1.61	19.26	-2.33	0.1	57.63	48.99	0.48	1.28	0.52
OC	WIN	12	1.66	2.58	0.67	55.29	56.35	0.92	0.94	0.45	72.56	46.06	0.55	73.11	46.61	0.56	1.14	0.44
OC	SPR	15	1.44	1.76	0.54	22.27	56.02	0.32	0.8	1.15	57.7	34.53	0.22	69.21	49.13	0.56	1.12	0.29
OC	SUM	16	2.38	2.35	0.57	-1.32	28.93	-0.03	0.69	0.71	4.12	-2.03	-0.01	30.21	28.94	0.29	0.84	0.33
OC	FAL	15	1.73	1.69	0.72	-2.1	27.87	-0.04	0.48	0.74	13.04	7.32	-0.02	28.15	26	0.28	0.86	0.52
OC	ALL	58	1.82	2.08	0.56	14	39.38	0.25	0.72	0.91	34.44	19.79	0.14	48.64	37.06	0.39	0.99	0.31
PM-2.5	WIN	13	12.29	11.8	0.84	-3.99	20.92	-0.49	2.57	8.36	3.58	-0.25	-0.04	24.28	23.51	0.22	2.93	0.71
PM-2.5	SPR	14	9.39	10.39	0.8	10.7	22.08	1	2.07	11.73	10.26	6.96	0.11	18.84	16.3	0.22	3.57	0.64
PM-2.5	SUM	7	15.77	13.54	0.81	-14.17	28.04	-2.23	4.42	23.4	-7.65	-14.49	-0.17	31.3	32.61	0.33	5.33	0.65
PM-2.5	FAL	15	10.1	8.94	0.85	-11.5	19.23	-1.16	1.94	7.94	-6.94	-9.2	-0.13	17.64	18.83	0.22	3.05	0.73
PM-2.5	ALL	49	11.29	10.77	0.81	-4.59	22.15	-0.52	2.5	12.55	0.66	-2.96	-0.05	21.7	21.32	0.23	3.58	0.65
SO4	WIN	13	2.11	1.31	0.82	-38.15	40.75	-0.81	0.86	0.71	-32.48	-42.15	-0.62	35.33	44.75	0.66	1.17	0.68
SO4	SPR	13	2.24	2.5	0.81	11.76	31.07	0.26	0.7	1.36	5.55	-1.19	0.12	29.82	27.91	0.31	1.19	0.65
SO4	SUM	8	3.25	3.82	0.76	17.36	43.03	0.56	1.4	3.79	43.54	21.47	0.17	58.24	38.71	0.43	2.03	0.58
SO4	FAL	15	2.16	1.66	0.96	-23.09	26.93	-0.5	0.58	0.24	-16.74	-21.97	-0.3	27.27	31.2	0.35	0.7	0.92
SO4	ALL	49	2.35	2.14	0.76	-8.72	34.92	-0.2	0.82	1.52	-5.16	-14.72	-0.1	35.14	35.15	0.38	1.25	0.57

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 391530023																		
EC	WIN	15	0.39	0.66	0.77	69.3	69.3	0.27	0.27	0.01	89.44	55.58	0.69	89.44	55.58	0.69	0.29	0.59
EC	SPR	14	0.45	0.59	0.78	32.53	42.74	0.14	0.19	0.02	47.68	34.68	0.33	51.59	39.22	0.43	0.21	0.61
EC	SUM	15	0.79	0.72	0.53	-8.68	24.58	-0.07	0.19	0.12	1.16	-3.36	-0.1	21.48	22.51	0.27	0.35	0.28
EC	FAL	13	0.64	0.68	0.83	6.63	24.93	0.04	0.16	0.04	17.37	11.19	0.07	29.08	25.27	0.25	0.21	0.69
EC	ALL	57	0.56	0.66	0.68	17.39	36.3	0.1	0.2	0.07	39.52	24.81	0.17	48.49	35.95	0.36	0.27	0.46
NACL	WIN	13	0.13	0.15	0.13	15.59	65.46	0.02	0.09	0.01	81.65	27.96	0.16	108.3	63.95	0.65	0.1	0.02
NACL	SPR	7	0.18	0.07	0.6	-59.51	60.01	-0.11	0.11	0.02	-39.82	-59.33	-1.47	41.02	60.5	1.48	0.19	0.35
NACL	SUM	13	0.06	0.04	0.4	-33.14	50.32	-0.02	0.03	0	-18.87	-33.82	-0.5	44.05	51.46	0.75	0.04	0.16
NACL	FAL	15	0.07	0.07	0.05	0.88	70.97	0	0.05	0.01	52.93	21.33	0.01	77.32	58.06	0.71	0.07	0
NACL	ALL	48	0.1	0.08	0.36	-15.54	62.74	-0.02	0.06	0.01	27.74	-3.57	-0.18	71.41	58.22	0.74	0.1	0.13
NH4	WIN	13	1.85	1.17	0.73	-36.67	41.25	-0.68	0.76	0.58	-31.29	-42.66	-0.58	38.46	48.61	0.65	1.02	0.53
NH4	SPR	7	1.48	1.57	0.89	5.91	26	0.09	0.38	0.39	-1.44	-6.74	0.06	25.51	25.72	0.26	0.63	0.79
NH4	SUM	13	1.59	1.38	0.82	-13.25	31.99	-0.21	0.51	0.39	6.42	-4.32	-0.15	38.93	35.29	0.37	0.66	0.67
NH4	FAL	15	1.12	0.89	0.79	-19.95	33.84	-0.22	0.38	0.21	22.44	-9.23	-0.25	61.07	41.4	0.42	0.51	0.63
NH4	ALL	48	1.5	1.2	0.74	-19.88	34.66	-0.3	0.52	0.45	0.07	-16.59	-0.25	43.76	39.41	0.43	0.73	0.55
NO3	WIN	13	3.8	2.67	0.73	-29.75	42.93	-1.13	1.63	2.49	-24.46	-38.55	-0.42	44.85	53.55	0.61	1.94	0.53
NO3	SPR	7	1.91	1.79	0.84	-6.14	66.86	-0.12	1.28	3.12	-22.43	-42.43	-0.07	54.08	65.04	0.71	1.77	0.71
NO3	SUM	13	0.61	0.55	0.71	-11.04	68.76	-0.07	0.42	0.28	-26.02	-56.13	-0.12	65.33	83.02	0.77	0.54	0.51
NO3	FAL	15	1.58	1.26	0.71	-20.56	39.42	-0.33	0.62	0.45	-11.62	-33.29	-0.26	53.13	58.59	0.5	0.75	0.5
NO3	ALL	48	1.97	1.53	0.76	-22.52	47.61	-0.44	0.94	1.53	-20.58	-42.24	-0.29	54.33	64.78	0.61	1.32	0.57
OC	WIN	15	1.34	2.49	0.8	86.62	86.62	1.16	1.16	0.25	113.79	64.75	0.87	113.79	64.75	0.87	1.26	0.64
OC	SPR	14	1.31	1.7	0.78	30.45	38.42	0.4	0.5	0.25	49.44	32.46	0.3	54.26	37.64	0.38	0.64	0.6
OC	SUM	15	2.48	2.13	0.65	-14.03	23.92	-0.35	0.59	0.55	-11.44	-16.26	-0.16	24.04	26.66	0.28	0.82	0.42
OC	FAL	13	1.41	1.53	0.94	8.67	21.29	0.12	0.3	0.09	24.94	18.22	0.09	33.41	27.61	0.21	0.32	0.89
OC	ALL	57	1.65	1.99	0.63	20.56	39.62	0.34	0.65	0.6	44.77	24.89	0.21	57.22	39.6	0.4	0.85	0.4
PM-2.5	WIN	13	13.82	10.45	0.68	-24.38	34.4	-3.37	4.76	18.26	-17.9	-25.87	-0.32	35.02	39.28	0.45	5.44	0.47
PM-2.5	SPR	14	10.59	9.62	0.78	-9.08	25.71	-0.96	2.72	12.91	-11.24	-17.01	-0.1	24.14	28.04	0.28	3.72	0.61
PM-2.5	SUM	16	16.44	10.99	0.81	-33.12	35.03	-5.44	5.76	19.04	-30.52	-39.18	-0.5	32.36	40.96	0.52	6.98	0.65
PM-2.5	FAL	15	9.31	7.9	0.88	-15.19	22.33	-1.41	2.08	4.6	-10.11	-14.88	-0.18	25.46	27.49	0.26	2.57	0.78
PM-2.5	ALL	58	12.6	9.74	0.76	-22.67	30.56	-2.86	3.85	16.96	-17.76	-24.56	-0.29	29.19	33.98	0.4	5.01	0.58
SO4	WIN	13	2.73	1.15	0.68	-57.92	57.92	-1.58	1.58	0.73	-55.53	-81.36	-1.38	55.53	81.36	1.38	1.8	0.46
SO4	SPR	7	3.37	3.32	0.91	-1.5	23.49	-0.05	0.79	1.07	-6.3	-11.5	-0.02	23.04	26.74	0.24	1.04	0.83
SO4	SUM	13	5.02	3.94	0.78	-21.61	34.11	-1.08	1.71	3.49	-14.4	-21.9	-0.28	33.45	38.3	0.44	2.16	0.61
SO4	FAL	15	2.64	1.51	0.88	-42.98	43.85	-1.14	1.16	0.7	-37.66	-52.23	-0.75	40.73	55.13	0.77	1.41	0.78
SO4	ALL	48	3.42	2.33	0.81	-31.74	40.09	-1.08	1.37	1.74	-31.63	-45.97	-0.47	40.19	53.53	0.59	1.71	0.66

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 401091037																		
EC	WIN	15	0.48	0.71	0.62	46.82	56.33	0.23	0.27	0.06	71.44	43.68	0.47	74.97	47.74	0.56	0.34	0.39
EC	SPR	15	0.35	0.55	0.43	58.68	74.15	0.2	0.26	0.14	82.7	40.22	0.59	93.76	52.67	0.74	0.43	0.19
EC	SUM	16	0.34	0.48	0.57	42.65	48.14	0.14	0.16	0.03	53.95	36.26	0.43	57.46	40.2	0.48	0.22	0.33
EC	FAL	12	0.36	0.67	0.89	89.96	89.96	0.32	0.32	0.03	96.62	62.98	0.9	96.62	62.98	0.9	0.36	0.8
EC	ALL	58	0.38	0.6	0.58	56.89	65	0.22	0.25	0.07	74.74	44.73	0.57	79.48	50.09	0.65	0.34	0.34
NACL	WIN	12	0.05	0.05	0.18	5.36	75.44	0	0.04	0	62.81	27.2	0.05	85.58	63.13	0.75	0.06	0.03
NACL	SPR	13	0.17	0.08	0.58	-56.16	64.35	-0.1	0.11	0.02	-23.88	-44.48	-1.28	50.59	65.8	1.47	0.18	0.34
NACL	SUM	16	0.14	0.05	0.1	-66.77	76.26	-0.1	0.11	0.01	-46.18	-89.22	-2.01	73.61	104.81	2.3	0.15	0.01
NACL	FAL	11	0.03	0.05	0.7	62.49	86.47	0.02	0.03	0	64.61	34.3	0.62	79.61	53.75	0.86	0.04	0.48
NACL	ALL	52	0.1	0.06	0.33	-46.7	71.9	-0.05	0.08	0.01	7.98	-25.04	-0.88	71.89	74.64	1.35	0.13	0.11
NH4	WIN	12	1.12	0.8	0.88	-28.9	42.76	-0.32	0.48	0.36	4.75	-12.08	-0.41	51.38	48.64	0.6	0.68	0.78
NH4	SPR	14	1.23	0.86	0.98	-30.33	32.35	-0.37	0.4	0.16	-0.31	-23.55	-0.44	53.79	42.55	0.46	0.55	0.96
NH4	SUM	16	0.57	0.43	0.74	-23.69	39.8	-0.13	0.23	0.05	-15.76	-29.43	-0.31	46.26	49.37	0.52	0.26	0.54
NH4	FAL	12	0.43	0.54	0.67	25.34	45.22	0.11	0.2	0.06	40.13	25.9	0.25	49.99	37.69	0.45	0.26	0.45
NH4	ALL	54	0.83	0.65	0.9	-22.15	38.45	-0.18	0.32	0.18	5.22	-11.75	-0.28	50.18	44.85	0.49	0.47	0.8
NO3	WIN	12	2.91	1.72	0.84	-40.66	46.06	-1.18	1.34	1.55	-23.4	-41.34	-0.69	47.1	55.2	0.78	1.72	0.7
NO3	SPR	14	1.44	0.78	0.88	-45.65	47.73	-0.66	0.69	0.77	-63.31	-104.4	-0.84	66.5	107.27	0.88	1.1	0.78
NO3	SUM	16	0.32	0.08	0.17	-74.55	74.55	-0.24	0.24	0.03	-68.74	-108.78	-2.93	68.74	108.78	2.93	0.29	0.03
NO3	FAL	12	0.64	0.61	0.94	-5.3	41.42	-0.03	0.27	0.2	-26.96	-39.85	-0.06	41.09	51.49	0.44	0.45	0.89
NO3	ALL	54	1.26	0.75	0.87	-40.66	48.17	-0.51	0.61	0.77	-47.97	-77.34	-0.69	57.21	83.75	0.81	1.02	0.75
OC	WIN	15	1.37	2.3	0.58	68.08	71.47	0.93	0.98	0.72	100.53	53.87	0.68	102.45	55.86	0.71	1.26	0.34
OC	SPR	15	1.46	1.93	0.4	32.26	66.21	0.47	0.96	3.17	59.2	23.95	0.32	80.06	48.76	0.66	1.84	0.16
OC	SUM	16	1.62	2.35	0.7	44.91	51.11	0.73	0.83	0.87	44.93	29.58	0.45	51.88	37.4	0.51	1.18	0.5
OC	FAL	12	0.94	1.83	0.72	94.64	94.64	0.89	0.89	0.23	103.89	63.55	0.95	103.89	63.55	0.95	1.01	0.52
OC	ALL	58	1.37	2.12	0.52	54.47	66.67	0.75	0.92	1.33	75.2	41.44	0.54	83.01	50.52	0.67	1.37	0.27
PM-2.5	WIN	12	10.88	11.23	0.49	3.19	41.15	0.35	4.48	30.6	31.44	10.02	0.03	59.63	46.49	0.41	5.54	0.24
PM-2.5	SPR	14	11.44	8.93	0.71	-21.89	39.8	-2.5	4.55	24.91	-21.34	-31.18	-0.28	37.98	44.57	0.51	5.58	0.5
PM-2.5	SUM	16	10.74	7.83	0.56	-27.12	29.47	-2.91	3.17	10.6	-24.53	-33.1	-0.37	27.06	35.51	0.4	4.37	0.31
PM-2.5	FAL	13	5.88	8.75	0.55	48.63	49.59	2.86	2.92	7.38	53.43	37.84	0.49	54.44	38.88	0.5	3.95	0.3
PM-2.5	ALL	55	9.8	9.07	0.53	-7.48	38.22	-0.73	3.75	23.34	6.92	-6.44	-0.08	43.42	41.01	0.41	4.89	0.28
SO4	WIN	12	1.38	0.98	0.89	-29.06	39.15	-0.4	0.54	0.67	-4.75	-14.95	-0.41	36.24	38.88	0.55	0.91	0.78
SO4	SPR	14	2.74	1.92	0.91	-29.78	30.68	-0.82	0.84	0.57	-22.82	-30.18	-0.42	30.21	36.05	0.44	1.11	0.83
SO4	SUM	16	2.16	1.25	0.79	-41.91	45.11	-0.9	0.97	0.26	-43.7	-61.34	-0.72	47.05	64.29	0.78	1.04	0.62
SO4	FAL	12	1.16	1.16	0.83	0.16	23.51	0	0.27	0.15	14.69	8.48	0	28.45	24.49	0.24	0.39	0.69
SO4	ALL	54	1.91	1.34	0.85	-29.69	35.89	-0.57	0.69	0.53	-16.66	-27.44	-0.42	36.15	42.48	0.51	0.92	0.72

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 401431127																		
EC	WIN	22	0.52	0.62	0.73	18.4	37.74	0.1	0.2	0.07	21.84	12.48	0.18	38.37	32.74	0.38	0.28	0.53
EC	SPR	24	0.51	0.67	0.85	31.87	41.18	0.16	0.21	0.09	22.85	14.02	0.32	35.13	28.04	0.41	0.35	0.71
EC	SUM	25	0.39	0.47	0.63	18.59	34.66	0.07	0.14	0.02	23.67	14.99	0.19	38.53	32.42	0.35	0.17	0.4
EC	FAL	24	0.4	0.54	0.69	32.51	52.16	0.13	0.21	0.05	38.56	23.02	0.33	54.11	42.1	0.52	0.26	0.47
EC	ALL	95	0.46	0.57	0.76	25.44	41.25	0.12	0.19	0.06	26.8	16.19	0.25	41.57	33.83	0.41	0.27	0.58
NACL	WIN	22	0.1	0.08	0.56	-20.8	47.11	-0.02	0.05	0	18.38	-11.79	-0.26	63.69	52.8	0.59	0.07	0.32
NACL	SPR	19	0.13	0.09	0.6	-32.57	55.97	-0.04	0.07	0.01	3.03	-19.3	-0.48	61.28	60.91	0.83	0.11	0.36
NACL	SUM	26	0.12	0.05	0.23	-60.5	66.16	-0.07	0.08	0.01	-33.66	-80.52	-1.53	76.53	94.58	1.67	0.12	0.05
NACL	FAL	24	0.04	0.05	0.84	26.7	51.94	0.01	0.02	0	32.5	12.12	0.27	59.55	48.02	0.52	0.03	0.7
NACL	ALL	91	0.1	0.07	0.47	-32.81	56.9	-0.03	0.06	0.01	4.03	-26.69	-0.49	65.77	65.17	0.85	0.09	0.22
NH4	WIN	23	1.5	1.03	0.66	-31.39	46.27	-0.47	0.7	1.92	-3.7	-18.38	-0.46	41.82	45.07	0.67	1.47	0.44
NH4	SPR	22	1.03	0.86	0.92	-16.13	35.79	-0.17	0.37	0.36	28.88	1.97	-0.19	60.65	41.61	0.43	0.62	0.84
NH4	SUM	26	0.55	0.48	0.82	-13.02	29.39	-0.07	0.16	0.04	14.52	-2.72	-0.15	47.64	38.2	0.34	0.2	0.67
NH4	FAL	24	0.56	0.63	0.73	13.46	49.26	0.08	0.27	0.2	108.77	33.96	0.13	125.36	56.6	0.49	0.45	0.53
NH4	ALL	95	0.89	0.74	0.76	-17.17	41.11	-0.15	0.37	0.65	37.24	3.84	-0.21	68.88	45.3	0.5	0.82	0.57
NO3	WIN	23	2.78	1.88	0.75	-32.32	42.7	-0.9	1.19	2.5	-16.53	-33.43	-0.48	42.75	53.15	0.63	1.82	0.56
NO3	SPR	22	1.21	0.77	0.81	-36.27	55.69	-0.44	0.67	1.03	-39.22	-75.34	-0.57	65.48	93.39	0.87	1.11	0.66
NO3	SUM	26	0.28	0.09	0.04	-67.67	67.75	-0.19	0.19	0.02	-63.98	-99.59	-2.09	64.09	99.7	2.1	0.23	0
NO3	FAL	24	0.78	0.61	0.86	-21.83	46.35	-0.17	0.36	0.42	-26.28	-47.5	-0.28	50.15	65.77	0.59	0.67	0.73
NO3	ALL	95	1.23	0.81	0.83	-33.79	47.84	-0.41	0.59	1.04	-37.23	-64.8	-0.51	55.72	78.4	0.72	1.1	0.69
OC	WIN	22	1.78	2.42	0.77	35.98	46.53	0.64	0.83	0.87	45.88	30.45	0.36	52.43	38.27	0.47	1.13	0.59
OC	SPR	24	2.57	2.9	0.83	12.88	31.38	0.33	0.81	1.89	30.92	13.63	0.13	47.76	32.51	0.31	1.42	0.69
OC	SUM	25	1.98	2.77	0.7	40.15	49.07	0.79	0.97	1.47	38.07	23.27	0.4	48.36	34.53	0.49	1.45	0.49
OC	FAL	24	1.29	2.04	0.7	57.97	66.14	0.75	0.85	1.01	69.37	36.79	0.58	78.81	48.29	0.66	1.25	0.49
OC	ALL	95	1.91	2.54	0.77	33.01	45.41	0.63	0.87	1.36	45.98	25.91	0.33	56.84	38.36	0.45	1.32	0.59
PM-2.5	WIN	23	13.43	10.67	0.51	-20.51	37.73	-2.75	5.07	42.47	-10.51	-20.94	-0.26	35.94	41.39	0.47	7.07	0.26
PM-2.5	SPR	22	12.26	9.47	0.89	-22.74	29.41	-2.79	3.61	11.39	-17.11	-23.35	-0.29	29.52	33.51	0.38	4.38	0.79
PM-2.5	SUM	26	11.86	8.44	0.69	-28.88	31.47	-3.43	3.73	8.93	-28.1	-37.2	-0.41	31.3	40.19	0.44	4.55	0.47
PM-2.5	FAL	24	7.29	8.36	0.75	14.65	31.95	1.07	2.33	9.61	19.01	10.94	0.15	33.63	28.19	0.32	3.28	0.56
PM-2.5	ALL	95	11.18	9.2	0.67	-17.71	32.85	-1.98	3.67	21	-9.4	-17.89	-0.22	32.6	35.91	0.4	4.99	0.45
SO4	WIN	23	2.49	1.48	0.56	-40.68	47.03	-1.01	1.17	5.17	-26.65	-39.9	-0.69	39.24	49.86	0.79	2.49	0.32
SO4	SPR	22	2.6	1.94	0.82	-25.41	29.6	-0.66	0.77	1.49	-14.65	-20	-0.34	25.03	29.12	0.4	1.39	0.67
SO4	SUM	26	2.36	1.38	0.78	-41.5	42.36	-0.98	1	0.35	-39.17	-52.88	-0.71	41.22	54.77	0.72	1.14	0.6
SO4	FAL	24	1.58	1.44	0.71	-8.61	27.42	-0.14	0.43	0.53	1.16	-5.83	-0.09	27.59	26.98	0.3	0.74	0.5
SO4	ALL	95	2.25	1.55	0.65	-31.15	37.55	-0.7	0.84	1.95	-20.27	-30.24	-0.45	33.55	40.62	0.55	1.56	0.42

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420010001																		
EC	WIN	15	0.35	0.49	0.94	42.63	43.76	0.15	0.15	0.01	48.61	36.28	0.43	50.19	37.9	0.44	0.17	0.87
EC	SPR	14	0.24	0.3	0.83	28.43	31.6	0.07	0.07	0.01	27.87	22.11	0.28	31.39	25.86	0.32	0.11	0.7
EC	SUM	16	0.39	0.38	0.78	-3.19	22.02	-0.01	0.09	0.01	-5.57	-10.02	-0.03	23.31	25.14	0.23	0.11	0.61
EC	FAL	14	0.3	0.39	0.81	30.12	35.34	0.09	0.11	0.01	35.17	25.97	0.3	38.75	29.73	0.35	0.14	0.66
EC	ALL	59	0.32	0.39	0.82	22.27	32.6	0.07	0.1	0.01	25.81	17.91	0.22	35.72	29.64	0.33	0.13	0.67
NACL	WIN	13	0.04	0.09	0.57	120.92	138	0.05	0.06	0.01	486.19	66.07	1.21	493.63	75.9	1.38	0.09	0.33
NACL	SPR	13	0.08	0.15	0.58	100.48	114.87	0.08	0.09	0.01	164.96	66.61	1	170.85	73.45	1.15	0.11	0.34
NACL	SUM	15	0.05	0.04	0.47	-24.57	45.82	-0.01	0.02	0	37.86	-7.37	-0.33	78.61	48.86	0.61	0.04	0.22
NACL	FAL	14	0.05	0.15	0.43	209.91	233.03	0.1	0.12	0.08	155.48	36.21	2.1	170.72	56.29	2.33	0.31	0.18
NACL	ALL	55	0.06	0.11	0.35	95.69	127.53	0.05	0.07	0.03	203.81	38.57	0.96	221.96	62.95	1.28	0.17	0.12
NH4	WIN	13	1.18	1.08	0.68	-8.36	31.32	-0.1	0.37	0.22	3.73	-4.64	-0.09	33.18	31.2	0.34	0.47	0.46
NH4	SPR	14	0.94	0.91	0.72	-2.89	38.16	-0.03	0.36	0.16	11.22	-3.38	-0.03	49.48	43.22	0.39	0.4	0.51
NH4	SUM	16	1.24	1.19	0.86	-3.9	23.77	-0.05	0.29	0.22	25.2	12.3	-0.04	40.11	30.12	0.25	0.47	0.75
NH4	FAL	14	0.55	0.82	0.77	49.02	51.22	0.27	0.28	0.09	211.19	60.63	0.49	212.7	62.19	0.51	0.4	0.59
NH4	ALL	57	0.98	1	0.79	2.37	32.98	0.02	0.32	0.19	62.55	16.46	0.02	83.22	41.46	0.33	0.44	0.62
NO3	WIN	14	1.71	2.19	0.54	28.4	49.01	0.49	0.84	1.3	330.24	24.46	0.28	351.46	52.09	0.49	1.24	0.29
NO3	SPR	14	1.16	1.2	0.63	2.96	54.76	0.03	0.64	0.77	43.65	4.42	0.03	85.37	57.1	0.55	0.88	0.39
NO3	SUM	16	0.53	0.61	0.77	15.28	55.99	0.08	0.3	0.23	4.8	-20.85	0.15	60.61	59.45	0.56	0.49	0.59
NO3	FAL	14	0.78	1.15	0.67	47.21	68.09	0.37	0.53	0.42	87.65	44.25	0.47	99.3	61.18	0.68	0.75	0.44
NO3	ALL	58	1.03	1.27	0.7	23.02	55.07	0.24	0.57	0.7	112.73	11.9	0.23	146.13	57.52	0.55	0.87	0.48
OC	WIN	15	1.14	2.4	0.88	110.2	110.2	1.26	1.26	0.28	139.48	76.91	1.1	139.48	76.91	1.1	1.37	0.77
OC	SPR	14	0.92	1.39	0.58	49.87	67.71	0.46	0.63	0.34	80.07	43.64	0.5	93.36	59.65	0.68	0.74	0.34
OC	SUM	16	2.12	2.02	0.75	-4.73	26.3	-0.1	0.56	0.47	-3.53	-8.84	-0.05	27.3	27.66	0.28	0.69	0.56
OC	FAL	14	0.88	1.38	0.67	55.81	57.97	0.49	0.51	0.39	109.37	53.24	0.56	111.08	55.06	0.58	0.8	0.45
OC	ALL	59	1.29	1.81	0.66	40.16	57.3	0.52	0.74	0.62	79.45	40.14	0.4	91.38	54.27	0.57	0.94	0.44
PM-2.5	WIN	14	8.44	9.37	0.8	11.1	23.55	0.94	1.99	6.49	14.28	9.2	0.11	26.44	23.39	0.24	2.71	0.64
PM-2.5	SPR	14	7.46	6.93	0.86	-7.15	18.15	-0.53	1.35	2.44	-8.15	-10.88	-0.08	18.19	19.78	0.2	1.65	0.74
PM-2.5	SUM	16	13.73	8.9	0.89	-35.16	35.16	-4.83	4.83	6.64	-35.1	-44.52	-0.54	35.1	44.52	0.54	5.47	0.79
PM-2.5	FAL	14	6.2	6.52	0.78	5.1	26.49	0.32	1.64	4.25	16.45	7.07	0.05	35.31	29.95	0.26	2.09	0.61
PM-2.5	ALL	58	9.12	7.96	0.76	-12.7	27.79	-1.16	2.53	10.4	-4.23	-10.98	-0.15	28.98	29.93	0.32	3.43	0.57
SO4	WIN	13	2.18	1.3	0.72	-40.35	41.68	-0.88	0.91	0.41	-35.95	-47.71	-0.68	37.87	49.52	0.7	1.09	0.52
SO4	SPR	14	1.93	1.72	0.78	-11.04	25.28	-0.21	0.49	0.36	-4.56	-10.42	-0.12	27.83	29.9	0.28	0.63	0.61
SO4	SUM	16	3.84	2.81	0.84	-26.82	28.29	-1.03	1.09	1.88	-16.24	-20.94	-0.37	22.01	26.25	0.39	1.72	0.71
SO4	FAL	14	1.65	1.47	0.86	-10.99	29.67	-0.18	0.49	0.36	2.44	-7.3	-0.12	38.05	37.36	0.33	0.62	0.74
SO4	ALL	57	2.45	1.87	0.85	-23.89	30.65	-0.59	0.75	0.95	-13.28	-21.11	-0.31	30.99	35.18	0.4	1.14	0.72

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420030008																		
EC	WIN	24	0.87	1.49	0.81	71.89	72.99	0.62	0.63	0.13	115.62	62.42	0.72	116.34	63.18	0.73	0.72	0.65
EC	SPR	25	0.61	1.01	0.55	64.79	70.13	0.4	0.43	0.13	85.32	51.02	0.65	87.43	53.43	0.7	0.53	0.3
EC	SUM	26	0.86	0.95	0.81	10.04	24.12	0.09	0.21	0.06	18.75	14.1	0.1	27.44	24.08	0.24	0.26	0.66
EC	FAL	25	0.84	1.16	0.9	37.86	42	0.32	0.35	0.05	59.07	40.2	0.38	61.35	42.87	0.42	0.39	0.81
EC	ALL	100	0.8	1.15	0.74	44.12	50.49	0.35	0.4	0.13	68.72	41.45	0.44	72.25	45.5	0.5	0.5	0.55
NACL	WIN	24	0.1	0.24	0.43	130.86	134.5	0.13	0.14	0.01	253.8	86.41	1.31	255.85	88.7	1.35	0.16	0.18
NACL	SPR	22	0.06	0.11	0.11	98.84	138.32	0.06	0.08	0.01	230.05	62.46	0.99	243.62	80.98	1.38	0.1	0.01
NACL	SUM	26	0.04	0.04	0.61	2.76	31.19	0	0.01	0	10.81	1.96	0.03	34.78	31.88	0.31	0.02	0.37
NACL	FAL	25	0.07	0.09	0.66	28.1	60.91	0.02	0.04	0	143.1	30.32	0.28	168.33	63.26	0.61	0.06	0.43
NACL	ALL	97	0.07	0.12	0.5	75.5	98	0.05	0.07	0.01	154.75	43.89	0.75	171.26	65.16	0.98	0.1	0.25
NH4	WIN	24	1.52	1.51	0.76	-0.52	27.93	-0.01	0.42	0.3	16.17	3.41	-0.01	40.08	31.64	0.28	0.55	0.58
NH4	SPR	23	1	1.06	0.74	6.23	35.48	0.06	0.35	0.24	11.95	2.39	0.06	39.45	35.38	0.35	0.5	0.55
NH4	SUM	26	1.27	1.04	0.85	-18.05	34.23	-0.23	0.43	0.27	10.15	-3.6	-0.22	45.32	39.57	0.42	0.57	0.72
NH4	FAL	25	0.71	0.84	0.67	17.66	48.69	0.13	0.35	0.18	73.36	31.78	0.18	90.98	53.53	0.49	0.44	0.45
NH4	ALL	98	1.12	1.11	0.76	-1.4	34.75	-0.02	0.39	0.27	28.17	8.55	-0.01	54.31	40.21	0.35	0.52	0.58
NO3	WIN	24	2.65	3.17	0.6	19.7	44.95	0.52	1.19	2.27	34.99	16.16	0.2	54.94	42.51	0.45	1.6	0.36
NO3	SPR	23	1.08	1.31	0.68	20.96	62.49	0.23	0.67	1.06	3.7	-20.19	0.21	60.22	60.49	0.62	1.05	0.46
NO3	SUM	26	0.44	0.23	0.58	-48.09	53.16	-0.21	0.23	0.04	-46.46	-70.46	-0.93	53.68	76.67	1.02	0.29	0.34
NO3	FAL	25	0.84	0.92	0.68	9.33	53.15	0.08	0.45	0.3	22.46	-0.73	0.09	63.4	55.39	0.53	0.55	0.47
NO3	ALL	98	1.23	1.38	0.79	11.77	50.76	0.15	0.63	0.96	2.84	-19.66	0.12	58	59.08	0.51	0.99	0.63
OC	WIN	24	2.12	5.17	0.67	143.97	143.97	3.05	3.05	2.4	221.7	91.19	1.44	221.7	91.19	1.44	3.42	0.45
OC	SPR	25	1.25	2.72	0.4	117.59	117.59	1.47	1.47	1.43	156.33	72.38	1.18	156.33	72.38	1.18	1.89	0.16
OC	SUM	26	1.97	2.66	0.58	34.8	39.47	0.69	0.78	0.8	43.3	28.31	0.35	46.8	32.01	0.39	1.13	0.34
OC	FAL	25	1.66	2.86	0.75	72.65	77.6	1.2	1.29	0.99	107.71	58.2	0.73	110.75	61.69	0.78	1.56	0.56
OC	ALL	100	1.75	3.33	0.6	90.36	92.9	1.58	1.62	2.15	130.48	61.89	0.9	132.15	63.73	0.93	2.16	0.36
PM-2.5	WIN	24	13.29	17.78	0.87	33.74	35.19	4.48	4.68	11.72	42.08	31.13	0.34	43.15	32.27	0.35	5.64	0.76
PM-2.5	SPR	23	9.42	10.84	0.56	15	37.79	1.41	3.56	17.44	21.71	11.63	0.15	40.06	34.48	0.38	4.41	0.31
PM-2.5	SUM	26	15.03	11.82	0.83	-21.37	25.53	-3.21	3.84	14.82	-17.89	-22.67	-0.27	23.95	27.73	0.32	5.01	0.69
PM-2.5	FAL	25	9.98	10.82	0.81	8.47	26.16	0.84	2.61	9.7	23.38	13.25	0.08	36.23	28.16	0.26	3.23	0.66
PM-2.5	ALL	98	12	12.79	0.72	6.61	30.55	0.79	3.66	21.05	16.62	7.72	0.07	35.57	30.54	0.31	4.66	0.52
SO4	WIN	24	2.54	1.68	0.78	-34.08	37.71	-0.87	0.96	0.64	-31.6	-40.43	-0.52	34.89	43.36	0.57	1.18	0.61
SO4	SPR	23	2.42	2	0.61	-17.25	36.49	-0.42	0.88	1.19	-12.79	-21.12	-0.21	32.42	37.34	0.44	1.17	0.37
SO4	SUM	26	4.53	3.8	0.86	-16.16	26.19	-0.73	1.19	2.21	-9.94	-16.01	-0.19	26.42	28.93	0.31	1.66	0.74
SO4	FAL	25	2.22	1.81	0.72	-18.37	32.34	-0.41	0.72	0.97	-8.41	-15.8	-0.22	30.95	33.96	0.4	1.06	0.52
SO4	ALL	98	2.96	2.35	0.84	-20.57	31.77	-0.61	0.94	1.31	-15.52	-23.14	-0.26	31.06	35.72	0.4	1.29	0.7

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420030064																		
EC	WIN	14	1.08	1.1	0.37	2.04	83.1	0.02	0.89	1.26	114.63	37.42	0.02	147.66	82.39	0.83	1.12	0.14
EC	SPR	15	1.21	0.73	0.47	-39.87	65.24	-0.48	0.79	3.19	28.17	3.33	-0.66	64.34	56.43	1.09	1.85	0.23
EC	SUM	16	2.22	0.83	0.48	-62.58	65.39	-1.39	1.45	2.53	-41.53	-65	-1.67	52.75	73.98	1.75	2.11	0.23
EC	FAL	11	1.45	0.87	0.65	-39.94	53.98	-0.58	0.78	0.89	0.45	-20.94	-0.67	55.07	55.99	0.9	1.11	0.42
EC	ALL	56	1.51	0.88	0.33	-41.96	66.36	-0.64	1	2.35	24.43	-12.44	-0.72	80.04	67.85	1.14	1.66	0.11
NACL	WIN	13	0.62	0.26	0.27	-57.02	87.73	-0.35	0.54	0.37	122.24	-11.93	-1.33	203.99	120.93	2.04	0.7	0.07
NACL	SPR	15	0.1	0.14	0.24	39.34	94.87	0.04	0.09	0.01	186.81	43.07	0.39	214.79	80.37	0.95	0.12	0.06
NACL	SUM	16	0.08	0.07	0.68	-14.28	36.64	-0.01	0.03	0	11.03	0.21	-0.17	38.7	35.45	0.43	0.04	0.47
NACL	FAL	14	0.07	0.12	0.27	68.59	104.72	0.05	0.08	0.01	162.07	60.35	0.69	171.03	73.39	1.05	0.1	0.08
NACL	ALL	58	0.2	0.14	0.51	-29.65	84.79	-0.06	0.17	0.11	117.88	23.09	-0.42	153.23	75.38	1.21	0.34	0.26
NH4	WIN	14	2.82	1.29	0.38	-54.47	58.64	-1.54	1.66	3.36	-33.07	-56.12	-1.2	52.76	71.04	1.29	2.39	0.15
NH4	SPR	15	1.31	1.1	0.9	-15.75	27.17	-0.21	0.36	0.14	1.17	-17.15	-0.19	46.37	42.55	0.32	0.42	0.81
NH4	SUM	16	2.02	1.16	0.89	-42.57	46.86	-0.86	0.95	0.92	-11.35	-30.43	-0.74	51.77	53.98	0.82	1.29	0.79
NH4	FAL	14	0.97	0.83	0.88	-14.13	42.11	-0.14	0.41	0.27	46.52	15.46	-0.16	76.89	52.16	0.49	0.54	0.78
NH4	ALL	59	1.78	1.1	0.65	-38.37	47	-0.68	0.84	1.46	0.41	-22.26	-0.62	56.59	54.69	0.76	1.39	0.42
NO3	WIN	14	3.45	2.59	0.27	-25.08	64.12	-0.87	2.21	9.11	10.31	-16.26	-0.33	64.87	67.32	0.86	3.14	0.07
NO3	SPR	15	1.07	1.34	0.62	25	69.56	0.27	0.74	1.09	16.38	-12.17	0.25	68.8	62.61	0.7	1.08	0.39
NO3	SUM	16	0.72	0.3	0.54	-58.85	60.41	-0.43	0.44	0.14	-56.99	-86.8	-1.43	58.74	88.44	1.47	0.56	0.29
NO3	FAL	14	0.87	1.01	0.54	15.36	55.85	0.13	0.49	0.45	52.74	12.82	0.15	82.03	48.6	0.56	0.68	0.3
NO3	ALL	59	1.49	1.27	0.52	-14.78	63.48	-0.22	0.95	2.78	3.67	-27.45	-0.17	68.28	67.41	0.74	1.68	0.27
OC	WIN	14	1.82	4.6	0.4	152.22	152.22	2.78	2.78	3.6	260.77	89.38	1.52	260.77	89.38	1.52	3.36	0.16
OC	SPR	15	1.57	1.96	0.39	25.34	67.87	0.4	1.06	1.46	96.12	39.04	0.25	114.82	63.47	0.68	1.27	0.15
OC	SUM	16	3.06	2.26	0.47	-26.21	36.67	-0.8	1.12	2.01	-13.22	-22.37	-0.36	34.29	38.89	0.5	1.63	0.22
OC	FAL	11	2.08	2.27	0.27	9.34	53.9	0.19	1.12	2.1	49.82	21.07	0.09	71.2	48.84	0.54	1.46	0.07
OC	ALL	56	2.16	2.77	0.19	28.25	70.42	0.61	1.52	4.07	96.95	30.55	0.28	119.73	60.05	0.7	2.11	0.04
PM-2.5	WIN	13	22.16	15.51	0.41	-30	48.41	-6.65	10.73	150.33	-6.64	-21.59	-0.43	47.92	53.16	0.69	13.95	0.17
PM-2.5	SPR	14	12.42	9.99	0.64	-19.55	34.12	-2.43	4.24	17.28	-14.6	-23.72	-0.24	35.17	40.5	0.42	4.81	0.4
PM-2.5	SUM	16	21.11	11.59	0.77	-45.11	45.13	-9.52	9.53	48.71	-39.4	-52.64	-0.82	39.5	52.74	0.82	11.8	0.59
PM-2.5	FAL	14	16.81	8.9	0.31	-47.06	60.53	-7.91	10.17	604.95	6.04	-10.24	-0.89	44.69	45.37	1.14	25.84	0.1
PM-2.5	ALL	57	18.16	11.43	0.42	-37.05	47.7	-6.73	8.66	207.86	-14.68	-28.04	-0.59	41.63	48.02	0.76	15.91	0.17
SO4	WIN	14	4.49	1.46	0.47	-67.39	67.39	-3.02	3.02	5.03	-59.71	-89.87	-2.07	59.71	89.87	2.07	3.77	0.22
SO4	SPR	15	2.89	2.05	0.74	-29.03	34.01	-0.84	0.98	1.17	-26.47	-35.61	-0.41	32.46	41.02	0.48	1.37	0.55
SO4	SUM	16	6	4.08	0.85	-32.01	35.64	-1.92	2.14	4.34	-19.99	-30.85	-0.47	36.78	43.14	0.52	2.83	0.73
SO4	FAL	14	2.66	1.78	0.81	-33.08	38.64	-0.88	1.03	1.5	-22.21	-32.61	-0.49	35.85	44.16	0.58	1.51	0.66
SO4	ALL	59	4.06	2.4	0.76	-40.92	44.14	-1.66	1.79	3.8	-31.59	-46.48	-0.69	40.9	53.93	0.75	2.56	0.58

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420210011																		
EC	WIN	15	0.83	0.59	0.36	-29.33	58.74	-0.24	0.49	0.57	19.64	-2.9	-0.41	57.64	51.86	0.83	0.8	0.13
EC	SPR	12	0.53	0.35	0.46	-34.6	40.91	-0.18	0.22	0.05	-23.45	-34.93	-0.53	33.95	43.91	0.63	0.29	0.22
EC	SUM	16	0.71	0.44	0.77	-38.46	38.46	-0.27	0.27	0.03	-35.55	-44.81	-0.62	35.55	44.81	0.62	0.32	0.59
EC	FAL	14	0.69	0.42	0.4	-38.92	45.21	-0.27	0.31	0.1	-28.27	-41.22	-0.64	40.3	51.72	0.74	0.42	0.16
EC	ALL	57	0.7	0.45	0.44	-35.1	46.83	-0.25	0.33	0.2	-16.69	-30.82	-0.54	42.19	48.17	0.72	0.51	0.2
NACL	WIN	15	0.08	0.11	0.59	37.37	50.55	0.03	0.04	0	83.28	36.52	0.37	89.39	44.17	0.51	0.06	0.35
NACL	SPR	14	0.05	0.09	0.14	68.43	90.91	0.04	0.05	0	99.2	35.64	0.68	117.27	57.08	0.91	0.07	0.02
NACL	SUM	16	0.05	0.03	0.42	-37.44	42.75	-0.02	0.02	0	-31.82	-44.74	-0.6	38.01	50.47	0.68	0.02	0.17
NACL	FAL	14	0.04	0.06	0.04	38.67	75.3	0.02	0.03	0	54.47	12.84	0.39	83.52	54.28	0.75	0.05	0
NACL	ALL	59	0.05	0.07	0.46	27.96	62.35	0.02	0.03	0	49.01	8.66	0.28	80.68	51.34	0.62	0.05	0.21
NH4	WIN	15	1.2	0.9	0.48	-25.12	36.92	-0.3	0.44	0.46	-10.94	-20.2	-0.34	33.03	37.71	0.49	0.74	0.23
NH4	SPR	14	0.86	0.81	0.79	-6.39	35.28	-0.06	0.3	0.14	35.49	-8.57	-0.07	78.37	44.32	0.38	0.38	0.62
NH4	SUM	16	1.46	0.91	0.82	-37.81	41.07	-0.55	0.6	0.45	-18.97	-27.88	-0.61	32.85	39.96	0.66	0.87	0.67
NH4	FAL	14	0.72	0.6	0.62	-15.57	42	-0.11	0.3	0.16	47.17	7.95	-0.18	82.17	54.12	0.5	0.41	0.39
NH4	ALL	59	1.08	0.81	0.66	-24.72	38.94	-0.27	0.42	0.35	11.69	-12.84	-0.33	55.4	43.78	0.52	0.65	0.44
NO3	WIN	15	1.68	1.6	0.32	-4.54	50.99	-0.08	0.86	1.73	16.99	-9.42	-0.05	61.39	52.56	0.53	1.32	0.1
NO3	SPR	14	0.79	0.76	0.62	-3.89	61.15	-0.03	0.48	0.48	-4.02	-31.76	-0.04	63.42	64.85	0.64	0.69	0.39
NO3	SUM	16	0.38	0.16	0.52	-56.57	59.4	-0.21	0.22	0.02	-56.1	-86.98	-1.3	59.23	89.76	1.37	0.26	0.27
NO3	FAL	14	0.58	0.53	0.61	-8.59	56.37	-0.05	0.32	0.18	13.25	-31.92	-0.09	82.92	78.54	0.62	0.43	0.37
NO3	ALL	59	0.85	0.76	0.62	-11.28	55.09	-0.1	0.47	0.61	-8.71	-41.09	-0.13	66.4	71.73	0.62	0.79	0.39
OC	WIN	15	1.89	2.7	0.18	42.99	91.06	0.81	1.72	4.93	127.34	59.05	0.43	137.43	75.27	0.91	2.36	0.03
OC	SPR	12	1.25	1.45	0.41	15.85	45.98	0.2	0.58	0.42	43.44	20.12	0.16	64.11	44.08	0.46	0.68	0.17
OC	SUM	16	2.2	1.88	0.68	-14.44	31.01	-0.32	0.68	0.73	-5.06	-11.44	-0.17	28.99	31.03	0.36	0.91	0.46
OC	FAL	14	1.43	1.45	0.6	1.49	36.63	0.02	0.52	0.45	15.76	6.76	0.01	38.61	34.97	0.37	0.67	0.36
OC	ALL	57	1.73	1.9	0.37	9.93	51.7	0.17	0.89	1.88	45.11	18.22	0.1	67.28	46.39	0.52	1.38	0.14
PM-2.5	WIN	15	11.95	9.79	0.35	-18.1	37.96	-2.16	4.54	53.59	-2.33	-10.58	-0.22	29.49	32.07	0.46	7.63	0.12
PM-2.5	SPR	14	9.15	7.1	0.63	-22.43	28.7	-2.05	2.63	9.72	-22.16	-30.47	-0.29	27.93	35.81	0.37	3.73	0.39
PM-2.5	SUM	16	17.2	9.26	0.91	-46.18	46.18	-7.94	7.94	11.99	-46.25	-61.01	-0.86	46.25	61.01	0.86	8.66	0.82
PM-2.5	FAL	14	9.49	6.46	0.72	-31.98	32.42	-3.04	3.08	8.46	-29.37	-38.65	-0.47	29.86	39.13	0.48	4.2	0.53
PM-2.5	ALL	59	12.13	8.22	0.62	-32.25	38.43	-3.91	4.66	27.37	-25.36	-35.64	-0.48	33.75	42.48	0.57	6.53	0.39
SO4	WIN	15	2.6	1.37	0.69	-47.27	47.27	-1.23	1.23	1.68	-40.23	-53.21	-0.9	40.23	53.21	0.9	1.79	0.47
SO4	SPR	14	2.38	2	0.89	-15.95	25.14	-0.38	0.6	0.4	-17.74	-24.07	-0.19	28.95	33.05	0.3	0.73	0.79
SO4	SUM	16	5.04	3.52	0.96	-30.15	31.11	-1.52	1.57	1.32	-27.85	-34.77	-0.43	31.05	37.76	0.45	1.91	0.92
SO4	FAL	14	2.42	1.61	0.82	-33.57	37.45	-0.81	0.91	0.97	-27.98	-38.12	-0.51	35.18	44.21	0.56	1.28	0.67
SO4	ALL	59	3.17	2.16	0.89	-31.81	34.57	-1.01	1.1	1.29	-28.63	-37.71	-0.47	33.86	42.1	0.51	1.52	0.8

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420270100																		
EC	WIN	15	0.41	0.59	0.6	43.04	62.26	0.18	0.26	0.08	91.78	51.03	0.43	97.56	58.17	0.62	0.33	0.36
EC	SPR	15	0.26	0.33	0.63	26.25	45.17	0.07	0.12	0.02	47.49	31.79	0.26	55.74	41.64	0.45	0.14	0.4
EC	SUM	16	0.48	0.45	0.84	-6.49	18.87	-0.03	0.09	0.01	-3.63	-5.78	-0.07	18.68	19.46	0.2	0.1	0.71
EC	FAL	15	0.35	0.47	0.78	34.16	41.08	0.12	0.14	0.01	52.02	34.68	0.34	56.57	39.51	0.41	0.16	0.61
EC	ALL	61	0.38	0.46	0.66	21.69	40.08	0.08	0.15	0.03	46.09	27.38	0.22	56.51	39.36	0.4	0.2	0.43
NACL	WIN	14	0.04	0.12	0.54	217.81	217.81	0.08	0.08	0	517.12	103.53	2.18	517.12	103.53	2.18	0.09	0.29
NACL	SPR	13	0.04	0.1	0.6	143.37	143.44	0.06	0.06	0	190.12	83.47	1.43	190.22	83.57	1.43	0.07	0.36
NACL	SUM	16	0.04	0.04	0.55	9.13	33.87	0	0.01	0	25.91	11.4	0.09	42.87	33.99	0.34	0.02	0.3
NACL	FAL	14	0.04	0.09	0.5	156.51	168.57	0.06	0.06	0.01	299.22	63.18	1.57	307.96	75.78	1.69	0.11	0.25
NACL	ALL	57	0.04	0.09	0.44	128.34	137.86	0.05	0.05	0	251.14	63.18	1.28	258.07	72.64	1.38	0.08	0.2
NH4	WIN	15	1	0.88	0.82	-11.48	26.66	-0.11	0.27	0.17	17.11	1.03	-0.13	38.6	27.68	0.3	0.43	0.67
NH4	SPR	15	0.85	0.87	0.33	1.59	60.77	0.01	0.52	0.44	150.97	18.32	0.02	188.16	65.8	0.61	0.66	0.11
NH4	SUM	16	1.33	0.85	0.78	-36.3	40.57	-0.48	0.54	0.4	-7.14	-21.66	-0.57	44.97	46.58	0.64	0.8	0.6
NH4	FAL	15	0.5	0.67	0.39	35.24	98.58	0.17	0.49	0.49	287.32	68.55	0.35	299.83	86.38	0.99	0.72	0.15
NH4	ALL	61	0.93	0.82	0.6	-11.72	49.12	-0.11	0.45	0.44	110.11	15.93	-0.13	141.29	56.45	0.56	0.67	0.36
NO3	WIN	15	1.43	1.64	0.54	14.57	59.89	0.21	0.86	1.15	71.13	25.23	0.15	99.07	61.79	0.6	1.09	0.29
NO3	SPR	15	1.13	1.05	0.63	-6.93	53.43	-0.08	0.6	0.79	29.01	0.56	-0.07	65.01	49.93	0.57	0.89	0.4
NO3	SUM	16	0.37	0.19	0.8	-49.97	49.97	-0.19	0.19	0.02	-52.16	-78.93	-1	52.16	78.93	1	0.23	0.64
NO3	FAL	15	0.55	0.79	0.35	43.09	90.25	0.24	0.5	0.48	72.11	1.89	0.43	121.28	73.34	0.9	0.73	0.13
NO3	ALL	61	0.86	0.9	0.64	4.9	61.5	0.04	0.53	0.63	28.67	-13.89	0.05	83.85	66.21	0.61	0.8	0.41
OC	WIN	15	1.26	3.05	0.65	142.94	142.94	1.8	1.8	1.06	334.99	100.38	1.43	334.99	100.38	1.43	2.07	0.42
OC	SPR	14	0.83	1.59	0.55	90.71	90.71	0.76	0.76	0.29	677.4	68.59	0.91	677.4	68.59	0.91	0.93	0.31
OC	SUM	16	1.82	1.83	0.75	0.11	24.93	0	0.45	0.42	11.84	5.13	0	29.51	25.63	0.25	0.65	0.57
OC	FAL	14	1.05	1.77	0.84	67.68	67.68	0.71	0.71	0.16	116.55	59.82	0.68	116.55	59.82	0.68	0.82	0.7
OC	ALL	59	1.26	2.07	0.56	63.84	73.57	0.81	0.93	0.92	276.77	57.38	0.64	281.56	62.94	0.74	1.25	0.31
PM-2.5	WIN	15	8.02	9.61	0.7	19.77	35.55	1.59	2.85	12.32	40.27	26.11	0.2	48.71	35.56	0.36	3.85	0.5
PM-2.5	SPR	14	6.48	7.01	0.54	8.22	30.65	0.53	1.99	7.53	11.59	4.28	0.08	31.6	27.23	0.31	2.79	0.29
PM-2.5	SUM	16	14.51	7.68	0.82	-47.08	47.08	-6.83	6.83	15.44	-45.14	-60.17	-0.89	45.14	60.17	0.89	7.88	0.67
PM-2.5	FAL	15	6.97	6.6	0.67	-5.31	33.54	-0.37	2.34	11.59	19.13	3.63	-0.06	43.76	37.15	0.35	3.42	0.45
PM-2.5	ALL	60	9.13	7.73	0.57	-15.27	39.24	-1.39	3.58	23.08	5.52	-7.61	-0.18	42.53	40.58	0.46	5	0.32
SO4	WIN	15	2.04	1.18	0.92	-42.04	42.04	-0.86	0.86	0.39	-38.03	-48.54	-0.73	38.03	48.54	0.73	1.06	0.85
SO4	SPR	15	1.83	1.72	0.26	-6.06	47.81	-0.11	0.88	1.16	10.2	-6.68	-0.06	53.45	49.49	0.51	1.08	0.07
SO4	SUM	16	4.44	2.64	0.93	-40.5	40.95	-1.8	1.82	1.99	-33.48	-43.99	-0.68	36.32	46.57	0.69	2.28	0.86
SO4	FAL	15	1.82	1.4	0.84	-23.12	34.22	-0.42	0.62	2.13	-4.59	-12.76	-0.3	29.78	33.56	0.45	1.52	0.7
SO4	ALL	61	2.56	1.75	0.84	-31.71	41.2	-0.81	1.06	1.84	-16.75	-28.26	-0.46	39.35	44.57	0.6	1.58	0.7

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420290100																		
EC	WIN	14	0.53	0.59	0.93	11.35	23.06	0.06	0.12	0.02	22.45	17.94	0.11	26.95	23.06	0.23	0.15	0.86
EC	SPR	14	0.39	0.37	0.39	-5.84	28.98	-0.02	0.11	0.02	0.16	-7.29	-0.06	31.04	32.4	0.31	0.14	0.15
EC	SUM	16	0.61	0.43	0.69	-29.98	32.41	-0.18	0.2	0.04	-26.61	-33.9	-0.43	28.87	35.98	0.46	0.27	0.48
EC	FAL	14	0.44	0.51	0.83	17.09	26.59	0.07	0.12	0.01	31.61	19.42	0.17	41.2	29.93	0.27	0.14	0.69
EC	ALL	58	0.5	0.47	0.7	-4.82	28.12	-0.02	0.14	0.03	5.75	-2.09	-0.05	31.91	30.54	0.3	0.19	0.49
NACL	WIN	14	0.05	0.12	0.3	128.4	161.46	0.07	0.09	0.01	551.82	75.45	1.28	561.95	88.41	1.61	0.14	0.09
NACL	SPR	14	0.1	0.18	0.22	75.31	135.83	0.08	0.14	0.03	129.98	57.57	0.75	141.61	76.65	1.36	0.2	0.05
NACL	SUM	16	0.07	0.07	0.61	4.28	57.87	0	0.04	0	22.01	-5.06	0.04	67.82	53.02	0.58	0.05	0.37
NACL	FAL	14	0.04	0.13	0.86	186.43	191.94	0.08	0.08	0.02	152.24	60.82	1.86	158.37	68.63	1.92	0.17	0.74
NACL	ALL	58	0.07	0.12	0.32	84.23	128.54	0.06	0.08	0.02	207.39	45.39	0.84	226.76	71.03	1.29	0.15	0.1
NH4	WIN	14	1.39	1.14	0.79	-17.82	26.18	-0.25	0.36	0.23	-8.66	-13.87	-0.22	26.25	28.01	0.32	0.54	0.62
NH4	SPR	14	1.17	1.02	0.82	-12.91	30.16	-0.15	0.35	0.16	-12.41	-21.4	-0.15	32.23	37.62	0.35	0.42	0.67
NH4	SUM	16	1.52	1.02	0.91	-32.73	40.44	-0.5	0.61	0.5	-13.3	-24.92	-0.49	43.05	46.6	0.6	0.86	0.82
NH4	FAL	13	0.85	0.92	0.92	8.57	28.07	0.07	0.24	0.09	52.61	28.27	0.09	62.1	39.52	0.28	0.31	0.84
NH4	ALL	57	1.25	1.03	0.83	-17.67	32.25	-0.22	0.4	0.3	3.09	-9.21	-0.21	40.61	38.21	0.39	0.59	0.7
NO3	WIN	14	2.77	2.6	0.62	-6.29	33.4	-0.17	0.93	1.61	8.82	-2.65	-0.07	38.71	37.89	0.36	1.28	0.38
NO3	SPR	14	1.65	1.6	0.78	-2.59	41.9	-0.04	0.69	0.81	-8.1	-22.21	-0.03	43.26	49.73	0.43	0.9	0.62
NO3	SUM	16	1.29	0.58	0.63	-55.26	59.93	-0.71	0.77	0.61	-59.12	-96.13	-1.24	63.8	100.07	1.34	1.06	0.4
NO3	FAL	14	1.54	1.49	0.62	-3.43	50.05	-0.05	0.77	0.97	10.37	-12.92	-0.04	61.38	60.45	0.52	0.99	0.39
NO3	ALL	58	1.79	1.53	0.71	-14.59	44	-0.26	0.79	1.06	-13.63	-35.64	-0.17	52.2	63.35	0.52	1.06	0.5
OC	WIN	14	1.59	2.89	0.94	81.05	81.05	1.29	1.29	0.19	108.61	65.85	0.81	108.61	65.85	0.81	1.36	0.88
OC	SPR	14	1.22	1.52	0.26	25.17	55.38	0.31	0.67	0.57	61.64	24.36	0.25	83.74	53.24	0.55	0.82	0.07
OC	SUM	16	2.28	1.71	0.83	-24.77	26.49	-0.56	0.6	0.34	-24.08	-29.48	-0.33	25.79	31.08	0.35	0.81	0.69
OC	FAL	14	1.05	1.44	0.71	37.96	39.09	0.4	0.41	0.21	69.22	37.22	0.38	69.88	37.89	0.39	0.6	0.51
OC	ALL	58	1.56	1.88	0.63	20.92	47.44	0.33	0.74	0.77	51.16	22.63	0.21	70.41	46.47	0.47	0.94	0.4
PM-2.5	WIN	14	10.9	10.73	0.91	-1.54	13.98	-0.17	1.52	7.93	5.55	3.64	-0.02	13.71	13.15	0.14	2.82	0.83
PM-2.5	SPR	14	9.48	7.8	0.51	-17.68	31.64	-1.68	3	11.6	-14.81	-23.4	-0.21	30.02	36.57	0.38	3.8	0.26
PM-2.5	SUM	16	14.31	8.07	0.9	-43.58	43.58	-6.23	6.23	14.03	-42.86	-56.87	-0.77	42.86	56.87	0.77	7.27	0.8
PM-2.5	FAL	14	9.71	7.34	0.66	-24.42	34.21	-2.37	3.32	25.13	-3.2	-11.94	-0.32	31.33	33.74	0.45	5.55	0.43
PM-2.5	ALL	58	11.21	8.47	0.71	-24.42	32.24	-2.74	3.61	19.92	-14.83	-23.34	-0.32	29.94	35.84	0.43	5.24	0.5
SO4	WIN	14	1.93	1.3	0.52	-32.63	38.3	-0.63	0.74	0.5	-30.66	-40.61	-0.48	35.91	45.25	0.57	0.95	0.27
SO4	SPR	14	2.25	1.75	0.85	-22.16	23.92	-0.5	0.54	0.19	-20.82	-27.25	-0.28	24.28	30.45	0.31	0.66	0.73
SO4	SUM	16	3.71	2.53	0.97	-31.88	35.23	-1.18	1.31	1.34	-23.25	-30.64	-0.47	32.68	38.44	0.52	1.66	0.95
SO4	FAL	14	1.74	1.36	0.96	-21.83	27.58	-0.38	0.48	0.39	-7.41	-11.99	-0.28	24.95	27.04	0.35	0.73	0.92
SO4	ALL	58	2.45	1.76	0.94	-28.15	32	-0.69	0.78	0.73	-20.63	-27.73	-0.39	29.57	35.4	0.45	1.1	0.88

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420430401																		
EC	WIN	15	0.64	1.07	0.88	67.13	71.97	0.43	0.46	0.06	104.82	62.7	0.67	106.18	64.13	0.72	0.5	0.77
EC	SPR	15	0.46	0.69	0.38	49.79	59.37	0.23	0.28	0.17	61.15	36.28	0.5	67.58	43.28	0.59	0.47	0.14
EC	SUM	16	0.81	0.85	0.71	4.92	28.48	0.04	0.23	0.09	15.88	8.79	0.05	33.25	28.28	0.28	0.3	0.51
EC	FAL	15	0.66	0.83	0.8	26.83	43.45	0.18	0.29	0.07	50.37	33.39	0.27	58.93	43.11	0.43	0.31	0.63
EC	ALL	61	0.65	0.86	0.67	33.44	48.25	0.22	0.31	0.12	57.37	34.86	0.33	65.94	44.43	0.48	0.4	0.44
NACL	WIN	15	0.14	0.17	0.43	21.98	99.93	0.03	0.14	0.06	162.75	69.93	0.22	173.45	87.8	1	0.24	0.18
NACL	SPR	15	0.05	0.16	0.29	200.51	200.51	0.11	0.11	0.01	257.17	85.25	2.01	257.17	85.25	2.01	0.15	0.08
NACL	SUM	15	0.04	0.06	0.59	68.92	70.22	0.02	0.03	0	119.36	49.8	0.69	121.11	51.67	0.7	0.03	0.35
NACL	FAL	15	0.06	0.17	0.39	197.65	213.19	0.11	0.12	0.07	183.76	54.38	1.98	192.2	64.19	2.13	0.29	0.16
NACL	ALL	60	0.07	0.14	0.28	96.45	137.74	0.07	0.1	0.04	180.76	64.84	0.96	185.98	72.23	1.38	0.21	0.08
NH4	WIN	15	1.4	1.27	0.83	-9.36	21.52	-0.13	0.3	0.18	-2.04	-5.9	-0.1	21.6	22.67	0.24	0.45	0.69
NH4	SPR	15	1.01	1.08	0.71	6.23	37.33	0.06	0.38	0.38	16.14	5.68	0.06	36.16	29.93	0.37	0.62	0.5
NH4	SUM	16	0.94	1.32	0.7	39.95	50.77	0.38	0.48	0.37	96.53	42.83	0.4	103.73	51.41	0.51	0.71	0.48
NH4	FAL	14	0.64	0.91	0.84	41.86	52.85	0.27	0.34	0.11	304.75	57.5	0.42	309.03	62.02	0.53	0.43	0.7
NH4	ALL	60	1	1.15	0.73	14.53	37.49	0.15	0.38	0.3	100.37	24.78	0.15	114.21	41.33	0.37	0.57	0.53
NO3	WIN	15	2.54	2.75	0.68	8.44	38.25	0.21	0.97	1.8	28.66	9.49	0.08	52.69	41.25	0.38	1.36	0.46
NO3	SPR	15	1.65	1.65	0.79	-0.3	40.78	-0.01	0.67	1.12	8.27	-9.89	0	51.45	44.77	0.41	1.06	0.63
NO3	SUM	16	0.52	0.93	0.74	77.83	110.86	0.41	0.58	0.62	51.93	-0.76	0.78	103.35	74.17	1.11	0.89	0.55
NO3	FAL	15	1.14	1.36	0.75	19.12	48.64	0.22	0.55	0.56	45.37	22.58	0.19	64.6	48.41	0.49	0.78	0.56
NO3	ALL	61	1.45	1.66	0.77	14.64	47.86	0.21	0.69	1.04	33.86	5.25	0.15	68.6	52.51	0.48	1.04	0.6
OC	WIN	15	1.4	5.46	0.89	288.87	288.87	4.06	4.06	1.8	368.79	124.09	2.89	368.79	124.09	2.89	4.27	0.79
OC	SPR	15	1.03	2.54	0.21	147.41	152.1	1.51	1.56	3.51	234.32	77.82	1.47	238.48	82.75	1.52	2.41	0.05
OC	SUM	16	1.95	2.66	0.6	36.67	50.61	0.71	0.98	1.09	51.43	33.63	0.37	57.56	41.18	0.51	1.26	0.36
OC	FAL	15	1.1	2.38	0.69	116.55	116.55	1.28	1.28	0.87	139.03	73.65	1.17	139.03	73.65	1.17	1.58	0.48
OC	ALL	61	1.38	3.25	0.46	135.81	141.84	1.87	1.95	3.45	195.98	76.58	1.36	198.61	79.77	1.42	2.64	0.21
PM-2.5	WIN	15	10.74	15.66	0.89	45.77	45.77	4.92	4.92	8.6	54.22	40.06	0.46	54.22	40.06	0.46	5.72	0.8
PM-2.5	SPR	15	8.23	9.9	0.53	20.28	39.01	1.67	3.21	32.35	24.21	10.82	0.2	42.42	32.44	0.39	5.93	0.28
PM-2.5	SUM	16	12.63	11.36	0.74	-10.1	26.03	-1.28	3.29	15.78	-7.54	-12.91	-0.11	25.59	27.19	0.29	4.17	0.54
PM-2.5	FAL	15	7.23	9.24	0.84	27.7	36.78	2	2.66	5.56	38.3	27.81	0.28	44.58	34.75	0.37	3.09	0.7
PM-2.5	ALL	61	9.76	11.53	0.7	18.22	36.03	1.78	3.52	20.46	26.72	15.97	0.18	41.44	33.51	0.36	4.86	0.49
SO4	WIN	15	2.2	1.41	0.79	-35.99	35.99	-0.79	0.79	0.31	-34.63	-44.5	-0.56	34.63	44.5	0.56	0.97	0.62
SO4	SPR	15	1.96	1.78	0.7	-9.06	29.11	-0.18	0.57	0.74	-9.73	-15.5	-0.1	25.57	28.42	0.32	0.88	0.49
SO4	SUM	16	3	2.94	0.68	-2.16	34.22	-0.06	1.03	1.91	14.32	4.15	-0.02	39.21	34.09	0.35	1.38	0.46
SO4	FAL	15	1.5	1.41	0.81	-5.68	30.61	-0.09	0.46	0.44	13.15	0.48	-0.06	41.08	35.94	0.32	0.67	0.66
SO4	ALL	61	2.18	1.9	0.74	-12.69	32.92	-0.28	0.72	0.95	-3.92	-13.55	-0.15	35.19	35.71	0.38	1.02	0.54

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420490003																		
EC	WIN	15	0.31	0.69	0.73	126.92	126.92	0.39	0.39	0.06	138.49	76.39	1.27	138.49	76.39	1.27	0.46	0.54
EC	SPR	15	0.34	0.46	0.74	35.79	51.03	0.12	0.17	0.03	61.37	41.4	0.36	66.51	47.68	0.51	0.2	0.55
EC	SUM	16	0.57	0.51	0.81	-11.4	22.32	-0.07	0.13	0.02	-4.63	-8.01	-0.13	22.92	23.75	0.25	0.15	0.65
EC	FAL	15	0.42	0.45	0.55	7	30.04	0.03	0.13	0.03	22.86	13.94	0.07	36.49	31.25	0.3	0.18	0.31
EC	ALL	61	0.41	0.53	0.43	27.96	49.11	0.12	0.2	0.06	53.56	30.29	0.28	65.4	44.42	0.49	0.28	0.18
NACL	WIN	14	0.1	0.11	0.12	1.84	81.65	0	0.08	0.02	98.69	37.63	0.02	117.14	66.95	0.82	0.16	0.02
NACL	SPR	15	0.06	0.07	0.14	1.06	59.7	0	0.04	0	58.17	6.83	0.01	96.93	62.67	0.6	0.05	0.02
NACL	SUM	16	0.04	0.03	0.31	-26.42	50.16	-0.01	0.02	0	24.57	-9.01	-0.36	70.98	54.96	0.68	0.04	0.09
NACL	FAL	15	0.04	0.05	0.55	49.76	76.14	0.02	0.03	0	61.14	30.07	0.5	80.98	55.14	0.76	0.04	0.3
NACL	ALL	60	0.06	0.06	0.16	3.06	68.95	0	0.04	0.01	59.41	15.6	0.03	90.74	59.73	0.69	0.08	0.03
NH4	WIN	15	1.01	0.86	0.49	-14.28	43.39	-0.14	0.44	0.59	25.14	9.3	-0.17	48.2	40.8	0.51	0.78	0.24
NH4	SPR	15	0.79	0.93	0.68	16.94	44.82	0.13	0.36	0.27	47.72	25.29	0.17	61.72	41.36	0.45	0.54	0.46
NH4	SUM	16	0.98	0.91	0.93	-7.03	35.43	-0.07	0.35	0.17	94.68	29.08	-0.08	115.95	54.3	0.38	0.42	0.86
NH4	FAL	15	0.42	0.56	0.77	32.64	55.57	0.14	0.23	0.06	123.32	46.91	0.33	135.55	61.32	0.56	0.29	0.59
NH4	ALL	61	0.8	0.82	0.72	1.68	42.78	0.01	0.34	0.29	73.08	27.67	0.02	90.77	49.53	0.43	0.54	0.51
NO3	WIN	15	2.06	1.76	0.51	-14.37	39.13	-0.3	0.8	2.06	19.34	4.23	-0.17	45.42	40.05	0.46	1.46	0.26
NO3	SPR	15	1.29	1.44	0.82	11.69	41.19	0.15	0.53	0.55	4.27	-9.36	0.12	44.44	44.53	0.41	0.75	0.67
NO3	SUM	16	0.27	0.16	0.52	-41.35	67.37	-0.11	0.18	0.04	-46.16	-78.26	-0.71	62.05	88.3	1.15	0.23	0.27
NO3	FAL	15	0.54	0.45	0.26	-16.54	51.09	-0.09	0.27	0.1	8.63	-31.31	-0.2	76.67	69.2	0.61	0.33	0.07
NO3	ALL	61	1.03	0.94	0.73	-8.48	43.28	-0.09	0.44	0.7	-4.18	-29.49	-0.09	57.22	60.97	0.47	0.84	0.53
OC	WIN	15	0.89	3.17	0.7	256.84	256.84	2.28	2.28	1.83	440.14	114.52	2.57	440.14	114.52	2.57	2.65	0.48
OC	SPR	15	0.87	1.7	0.65	96.29	96.29	0.83	0.83	0.28	162.95	72.19	0.96	162.95	72.19	0.96	0.99	0.42
OC	SUM	16	1.87	1.85	0.7	-1.35	26.97	-0.03	0.5	0.5	7.15	1.05	-0.01	28.23	27.44	0.27	0.71	0.49
OC	FAL	15	1.14	1.41	0.66	24.53	43.12	0.28	0.49	0.26	55.3	33.66	0.25	64.26	44.22	0.43	0.58	0.43
OC	ALL	61	1.2	2.03	0.33	68.93	84.82	0.83	1.02	1.5	163.78	54.46	0.69	171.51	63.98	0.85	1.48	0.11
PM-2.5	WIN	14	8.39	10.24	0.7	22.01	39.69	1.85	3.33	14.09	41.24	28.39	0.22	49.3	37.99	0.4	4.18	0.48
PM-2.5	SPR	15	7.15	7.95	0.81	11.29	28.25	0.81	2.02	5.52	12.37	5.74	0.11	30.52	29.22	0.28	2.48	0.66
PM-2.5	SUM	16	12.8	9.14	0.93	-28.6	28.61	-3.66	3.66	7.98	-25.43	-31.08	-0.4	25.46	31.11	0.4	4.62	0.87
PM-2.5	FAL	15	6.39	5.91	0.78	-7.53	26.61	-0.48	1.7	4.32	4.08	-2.88	-0.08	31.49	29.73	0.29	2.13	0.61
PM-2.5	ALL	60	8.76	8.29	0.77	-5.3	30.65	-0.46	2.68	12.25	6.95	-0.95	-0.06	33.8	31.9	0.32	3.53	0.59
SO4	WIN	15	1.6	1.03	0.54	-35.59	43.68	-0.57	0.7	0.84	-20.76	-31.11	-0.55	35.12	42.59	0.68	1.08	0.29
SO4	SPR	15	1.63	1.54	0.71	-5.74	29.9	-0.09	0.49	0.5	-7.97	-14.44	-0.06	27.89	30.14	0.32	0.72	0.5
SO4	SUM	16	3.59	3.22	0.92	-10.38	26.15	-0.37	0.94	1.26	5.95	-3.29	-0.12	36.77	33.2	0.29	1.18	0.84
SO4	FAL	15	1.55	1.31	0.89	-15.51	29.73	-0.24	0.46	0.42	-1.58	-9.38	-0.18	29.6	29.44	0.35	0.69	0.79
SO4	ALL	61	2.12	1.8	0.88	-15.12	30.77	-0.32	0.65	0.79	-5.89	-14.37	-0.18	32.42	33.83	0.36	0.95	0.78

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420692006																		
EC	WIN	15	0.49	0.6	0.7	23.04	36.31	0.11	0.18	0.05	42.71	27.93	0.23	48.36	34.27	0.36	0.25	0.49
EC	SPR	14	0.34	0.38	0.65	12.17	28.27	0.04	0.1	0.02	15.27	8.31	0.12	30.29	25.33	0.28	0.16	0.42
EC	SUM	15	0.69	0.51	0.78	-26.55	32.2	-0.18	0.22	0.03	-23.7	-31.38	-0.36	33.37	39.5	0.44	0.26	0.61
EC	FAL	13	0.45	0.43	0.84	-4.81	24.28	-0.02	0.11	0.02	9.68	3.35	-0.05	30.24	26.92	0.26	0.13	0.7
EC	ALL	57	0.5	0.48	0.68	-2.66	30.97	-0.01	0.15	0.04	10.96	1.9	-0.03	35.84	31.77	0.32	0.21	0.47
NACL	WIN	14	0.21	0.08	0.02	-61.29	78.08	-0.13	0.16	0.03	-30.88	-69.87	-1.58	70.07	94.25	2.02	0.22	0
NACL	SPR	14	0.08	0.12	0.05	52.94	114.85	0.04	0.09	0.02	93.55	24.08	0.53	129.11	78.23	1.15	0.14	0
NACL	SUM	15	0.04	0.03	0.4	-10.17	51.05	0	0.02	0	143.38	0.56	-0.11	186.95	63.13	0.57	0.03	0.16
NACL	FAL	13	0.04	0.06	0.65	49.42	96.59	0.02	0.04	0	31.91	-6.25	0.49	77.61	60.35	0.97	0.07	0.42
NACL	ALL	56	0.09	0.07	0.13	-19.38	85.18	-0.02	0.08	0.02	61.48	-12.75	-0.24	117.89	74.04	1.06	0.14	0.02
NH4	WIN	14	0.93	0.8	0.9	-13.63	24.19	-0.13	0.22	0.2	11.77	1.66	-0.16	31.24	24.97	0.28	0.47	0.82
NH4	SPR	15	0.67	0.72	0.8	7.43	28.63	0.05	0.19	0.06	19.38	5.08	0.07	43.19	32.84	0.29	0.26	0.64
NH4	SUM	15	0.86	0.86	0.88	0.09	24.66	0	0.21	0.1	46.77	15.72	0	60.95	33.43	0.25	0.32	0.77
NH4	FAL	12	0.35	0.48	0.83	36.31	68.97	0.13	0.24	0.07	383.8	74.62	0.36	390.96	83.73	0.69	0.3	0.69
NH4	ALL	56	0.72	0.73	0.84	1.29	30.14	0.01	0.22	0.12	102.9	21.98	0.01	119.48	41.94	0.3	0.34	0.71
NO3	WIN	14	1.58	1.6	0.86	1.38	31.58	0.02	0.5	0.41	13.89	1.26	0.01	40.8	40.54	0.32	0.64	0.75
NO3	SPR	15	0.9	0.94	0.89	5.18	40.65	0.05	0.36	0.2	18.48	-7.1	0.05	59.49	55.91	0.41	0.45	0.8
NO3	SUM	15	0.37	0.32	0.6	-13.44	51.31	-0.05	0.19	0.05	-15.99	-37.69	-0.16	56.14	64.96	0.59	0.22	0.36
NO3	FAL	13	0.47	0.39	0.78	-15.85	32.25	-0.07	0.15	0.04	-11.71	-24.71	-0.19	39.73	45.42	0.38	0.2	0.61
NO3	ALL	57	0.83	0.82	0.88	-1.49	36.56	-0.01	0.3	0.18	1.39	-17.11	-0.02	49.51	52.12	0.37	0.42	0.78
OC	WIN	15	1.15	3.22	0.72	179.32	179.32	2.07	2.07	1.35	231.97	97.92	1.79	231.97	97.92	1.79	2.37	0.52
OC	SPR	14	0.87	1.67	0.72	91.74	96.81	0.8	0.84	0.53	160.96	64.16	0.92	166.6	71.07	0.97	1.08	0.52
OC	SUM	15	1.83	2.05	0.74	12.25	31.76	0.22	0.58	0.59	12.97	6.48	0.12	31.25	28.39	0.32	0.8	0.55
OC	FAL	13	0.87	1.54	0.64	76.4	77.91	0.67	0.68	0.43	176.39	57.05	0.76	177.3	57.99	0.78	0.94	0.42
OC	ALL	57	1.2	2.15	0.58	79.41	88.41	0.95	1.06	1.23	144.22	56.24	0.79	150.62	63.92	0.88	1.46	0.34
PM-2.5	WIN	15	10.19	10.44	0.73	2.52	23.57	0.26	2.4	13.41	6.57	1.93	0.03	22.87	20.65	0.24	3.67	0.53
PM-2.5	SPR	14	7.31	7.78	0.83	6.4	21.79	0.47	1.59	5.2	4.22	0.12	0.06	20.25	20.55	0.22	2.33	0.68
PM-2.5	SUM	15	13.74	8.88	0.8	-35.37	38.55	-4.86	5.3	24.39	-31.3	-41.42	-0.55	36.27	45.61	0.6	6.93	0.64
PM-2.5	FAL	13	5.93	6.08	0.63	2.47	31.04	0.15	1.84	6.74	21.44	10.14	0.02	39.45	31.78	0.31	2.6	0.4
PM-2.5	ALL	57	9.45	8.38	0.7	-11.25	30.04	-1.06	2.84	17.92	-0.58	-8.05	-0.13	29.53	29.73	0.34	4.36	0.49
SO4	WIN	14	1.87	1.06	0.69	-43.44	43.44	-0.81	0.81	0.27	-40.44	-53.23	-0.77	40.44	53.23	0.77	0.96	0.47
SO4	SPR	15	1.71	1.54	0.69	-9.95	25.91	-0.17	0.44	0.29	-7.26	-13.26	-0.11	27.35	28.94	0.29	0.56	0.47
SO4	SUM	15	3.31	2.37	0.86	-28.43	33.32	-0.94	1.1	1.71	-15.57	-22.88	-0.4	32.28	35.86	0.47	1.61	0.75
SO4	FAL	13	1.28	1.11	0.86	-13.5	33.62	-0.17	0.43	0.64	6.09	-3.3	-0.16	35.52	35.12	0.39	0.82	0.74
SO4	ALL	57	2.07	1.54	0.85	-25.65	34	-0.53	0.7	0.86	-14.55	-23.34	-0.34	33.72	38.13	0.46	1.07	0.72

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420710007																		
EC	WIN	15	0.57	1.09	0.89	92.84	92.84	0.53	0.53	0.06	115.14	67.76	0.93	115.14	67.76	0.93	0.58	0.79
EC	SPR	15	0.39	0.58	0.35	46.87	56.57	0.18	0.22	0.07	68.03	37.87	0.47	74.41	45.09	0.57	0.32	0.12
EC	SUM	16	0.75	0.74	0.59	-1.19	33.49	-0.01	0.25	0.09	7.78	1.11	-0.01	33.37	31.58	0.34	0.31	0.35
EC	FAL	14	0.61	0.76	0.82	24.96	38.51	0.15	0.24	0.06	55.34	33.86	0.25	62.15	41.37	0.39	0.28	0.68
EC	ALL	60	0.58	0.79	0.62	36.25	53.08	0.21	0.31	0.11	60.78	34.61	0.36	70.79	46.29	0.53	0.39	0.38
NACL	WIN	14	0.09	0.31	0.56	252.46	252.46	0.22	0.22	0.03	685.59	124.04	2.52	685.59	124.04	2.52	0.28	0.31
NACL	SPR	15	0.1	0.26	0.48	160.76	186.58	0.16	0.18	0.02	234.15	96.6	1.61	241.23	106.24	1.87	0.21	0.23
NACL	SUM	14	0.05	0.13	0.4	166.69	168.17	0.08	0.08	0.01	221.63	84.46	1.67	222.25	85.1	1.68	0.11	0.16
NACL	FAL	15	0.04	0.28	0.51	591.18	591.18	0.24	0.24	0.12	526.8	128.37	5.91	526.8	128.37	5.91	0.42	0.26
NACL	ALL	58	0.07	0.24	0.37	254.44	264.22	0.17	0.18	0.05	415.78	108.51	2.54	417.76	111.16	2.64	0.28	0.14
NH4	WIN	14	1.52	1.66	0.61	9.51	36.28	0.14	0.55	0.67	27.36	9.13	0.1	50.43	36.4	0.36	0.83	0.38
NH4	SPR	15	1.32	1.24	0.84	-6.2	26.15	-0.08	0.35	0.19	-6.12	-10.06	-0.07	25	25.65	0.28	0.45	0.71
NH4	SUM	14	1.43	1.71	0.82	19.51	41.01	0.28	0.59	0.58	82.79	21.42	0.2	103.07	46.24	0.41	0.81	0.67
NH4	FAL	14	0.75	1.2	0.82	59.39	68.76	0.45	0.52	0.25	263.59	68.82	0.59	267.78	73.35	0.69	0.67	0.67
NH4	ALL	57	1.26	1.45	0.77	15.27	39.56	0.19	0.5	0.46	90.19	21.76	0.15	110.05	45.06	0.4	0.7	0.59
NO3	WIN	14	2.87	3.53	0.51	22.94	47.24	0.66	1.36	4.42	45.09	12.89	0.23	68	42.39	0.47	2.2	0.26
NO3	SPR	15	2.05	2.11	0.86	2.84	24.21	0.06	0.5	0.71	0.46	-7.02	0.03	28.89	28.81	0.24	0.84	0.73
NO3	SUM	14	1.23	2.1	0.61	70.9	109.52	0.87	1.34	3.25	79.65	12.41	0.71	122.27	74.7	1.1	2	0.38
NO3	FAL	15	1.43	2.25	0.62	58.18	75.28	0.83	1.07	1.99	106.32	40.65	0.58	122.22	60.9	0.75	1.64	0.39
NO3	ALL	58	1.89	2.49	0.64	31.7	56.02	0.6	1.06	2.66	57.73	14.8	0.32	85	51.46	0.56	1.74	0.41
OC	WIN	15	1.8	6.23	0.86	246.84	246.84	4.43	4.43	4.88	300.25	112.29	2.47	300.25	112.29	2.47	4.95	0.73
OC	SPR	15	1.26	2.45	0.36	94.27	96.3	1.19	1.22	1.55	194.03	63.72	0.94	196.59	66.52	0.96	1.72	0.13
OC	SUM	16	2.26	2.8	0.51	23.51	42.76	0.53	0.97	1.38	31.29	19.06	0.24	43.4	33.57	0.43	1.29	0.26
OC	FAL	14	1.35	2.49	0.81	84.67	88.14	1.14	1.19	0.51	129.84	70.43	0.85	131.17	71.82	0.88	1.35	0.66
OC	ALL	60	1.68	3.5	0.55	107.81	115.74	1.81	1.95	4.45	162.21	65.52	1.08	166.39	70.41	1.16	2.78	0.3
PM-2.5	WIN	15	13.14	18.91	0.7	43.93	48.92	5.77	6.43	36.9	59.4	37.99	0.44	62.51	41.51	0.49	8.38	0.49
PM-2.5	SPR	15	9.49	10.91	0.78	14.99	23.96	1.42	2.27	12	11.51	6.96	0.15	23.01	19.99	0.24	3.74	0.6
PM-2.5	SUM	14	13.66	14.26	0.73	4.41	31.35	0.6	4.28	31.06	11.15	1.56	0.04	35.62	30.29	0.31	5.61	0.54
PM-2.5	FAL	15	10.79	11.54	0.44	6.87	50.66	0.74	5.47	88.59	49.64	29.82	0.07	61.22	47.22	0.51	9.44	0.19
PM-2.5	ALL	59	11.74	13.9	0.59	18.41	39.35	2.16	4.62	46.86	33.3	19.38	0.18	45.76	34.83	0.39	7.18	0.35
SO4	WIN	14	2.15	1.68	0.53	-22.07	40.4	-0.48	0.87	1	-17.25	-27.51	-0.28	36.64	43.11	0.52	1.11	0.28
SO4	SPR	15	2.34	1.87	0.86	-20.13	26.24	-0.47	0.61	0.29	-21.11	-27.19	-0.25	27.44	33.03	0.33	0.72	0.74
SO4	SUM	14	3.55	3.05	0.84	-14.03	29.58	-0.5	1.05	1.62	12.48	-7.01	-0.16	48.82	36.78	0.34	1.37	0.71
SO4	FAL	15	1.53	1.47	0.74	-3.98	35.81	-0.06	0.55	0.75	23.68	1.42	-0.04	53.82	40.55	0.37	0.87	0.55
SO4	ALL	58	2.38	2	0.82	-15.67	32.13	-0.37	0.76	0.94	-0.49	-15	-0.19	41.64	38.31	0.38	1.04	0.67

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 420950025																		
EC	WIN	15	0.75	1.07	0.76	43.25	59.14	0.32	0.44	0.15	90.24	49.7	0.43	98.94	60.1	0.59	0.51	0.58
EC	SPR	15	0.37	0.51	0.62	38.53	47.62	0.14	0.18	0.04	54.25	30.96	0.39	63.09	40.96	0.48	0.24	0.39
EC	SUM	16	0.75	0.62	0.62	-17.63	31.97	-0.13	0.24	0.07	-9.08	-15.54	-0.21	30.7	32.99	0.39	0.3	0.39
EC	FAL	15	0.73	0.72	0.75	-0.34	34.8	0	0.25	0.08	27.02	12.78	0	49.97	40.31	0.35	0.29	0.57
EC	ALL	61	0.65	0.73	0.68	12.19	42.62	0.08	0.28	0.11	39.79	18.9	0.12	60.18	43.42	0.43	0.35	0.46
NACL	WIN	15	0.07	0.14	0.41	103.23	132.35	0.07	0.09	0.01	267.33	62.06	1.03	281.11	80.24	1.32	0.13	0.17
NACL	SPR	15	0.09	0.2	0.29	131.52	180.02	0.12	0.16	0.05	165.77	69.7	1.32	175.73	85.6	1.8	0.25	0.08
NACL	SUM	15	0.05	0.08	0.28	58.46	88.89	0.03	0.04	0	74.74	19.21	0.58	102.7	53.85	0.89	0.08	0.08
NACL	FAL	15	0.05	0.14	0.79	206.57	225.71	0.09	0.1	0.03	161.69	47.81	2.07	179.46	71.46	2.26	0.2	0.62
NACL	ALL	60	0.06	0.14	0.38	123.14	157.5	0.08	0.1	0.03	167.38	49.7	1.23	184.75	72.79	1.57	0.18	0.15
NH4	WIN	15	1.16	1.16	0.82	-0.07	21.09	0	0.25	0.15	3.43	-0.78	0	23.09	21	0.21	0.39	0.67
NH4	SPR	15	0.74	0.8	0.9	8.35	23.06	0.06	0.17	0.04	8.97	-4.31	0.08	37.43	37.07	0.23	0.22	0.81
NH4	SUM	15	1.11	0.87	0.87	-20.86	34.41	-0.23	0.38	0.22	9.43	-5.07	-0.26	47.69	41.93	0.43	0.52	0.76
NH4	FAL	14	0.61	0.74	0.94	20.31	43.37	0.12	0.27	0.09	156.2	58.85	0.2	164.95	68.55	0.43	0.32	0.88
NH4	ALL	59	0.91	0.9	0.84	-1.49	29.16	-0.01	0.27	0.14	42.62	11.38	-0.02	66.65	41.69	0.3	0.38	0.71
NO3	WIN	15	1.95	2.52	0.66	28.89	48.81	0.56	0.95	1.67	35.2	15.1	0.29	56.82	46.06	0.49	1.41	0.43
NO3	SPR	15	0.99	1.16	0.86	17.13	41.72	0.17	0.41	0.26	20.94	7.07	0.17	45.64	41.38	0.42	0.54	0.75
NO3	SUM	15	0.56	0.42	0.56	-26.08	50.75	-0.15	0.29	0.14	-29.4	-53.22	-0.35	51.76	69.87	0.69	0.4	0.32
NO3	FAL	15	0.87	0.89	0.79	1.66	39.6	0.01	0.35	0.22	9.2	-6.62	0.02	49	41.27	0.4	0.47	0.62
NO3	ALL	60	1.09	1.24	0.8	13.74	45.62	0.15	0.5	0.64	8.98	-9.42	0.14	50.8	49.65	0.46	0.82	0.64
OC	WIN	15	1.76	6.4	0.61	263.86	263.86	4.64	4.64	6.14	353.65	117.86	2.64	353.65	117.86	2.64	5.26	0.37
OC	SPR	15	1.04	2.19	0.34	111.72	121.06	1.16	1.25	1.58	167.44	62.78	1.12	176.99	74.24	1.21	1.71	0.12
OC	SUM	16	2.14	2.06	0.82	-3.74	19.66	-0.08	0.42	0.35	2.69	-2.34	-0.04	23.22	21.11	0.2	0.6	0.68
OC	FAL	15	1.5	2.38	0.75	58.55	62.64	0.88	0.94	0.96	110.21	53.09	0.59	113.66	56.86	0.63	1.32	0.56
OC	ALL	61	1.62	3.24	0.44	100.13	110.66	1.62	1.79	5.41	155.94	56.86	1	164.53	66.76	1.11	2.84	0.2
PM-2.5	WIN	15	10.7	16.88	0.92	57.77	59.16	6.18	6.33	12.02	68.48	47.42	0.58	69.76	48.76	0.59	7.09	0.85
PM-2.5	SPR	15	7.86	8.37	0.61	6.45	28.87	0.51	2.27	9.82	6.47	-1.8	0.06	29.52	29.85	0.29	3.17	0.38
PM-2.5	SUM	15	15.31	8.79	0.96	-42.59	42.59	-6.52	6.52	23.76	-38.49	-49.24	-0.74	38.49	49.24	0.74	8.14	0.91
PM-2.5	FAL	15	7.92	8.65	0.87	9.17	26.09	0.73	2.07	5.34	25.85	16.92	0.09	37.38	29.94	0.26	2.42	0.76
PM-2.5	ALL	60	10.45	10.67	0.6	2.13	41.13	0.22	4.3	33.07	15.58	3.32	0.02	43.79	39.45	0.41	5.75	0.36
SO4	WIN	15	2.12	1.45	0.63	-31.66	42.43	-0.67	0.9	0.61	-31.21	-41.62	-0.46	38.72	47.7	0.62	1.03	0.4
SO4	SPR	15	1.8	1.53	0.83	-15.01	19.55	-0.27	0.35	0.15	-15.02	-19.62	-0.18	19.53	23.92	0.23	0.47	0.69
SO4	SUM	15	3.49	2.35	0.85	-32.67	34.88	-1.14	1.22	2.19	-20.91	-28.03	-0.49	27.13	33.51	0.52	1.87	0.72
SO4	FAL	15	1.59	1.46	0.89	-8.15	32.94	-0.13	0.52	0.49	15.82	4.03	-0.09	43.65	38.36	0.36	0.71	0.79
SO4	ALL	60	2.25	1.7	0.82	-24.58	33.25	-0.55	0.75	1.02	-12.83	-21.31	-0.33	32.26	35.87	0.44	1.15	0.68

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 421010004																		
EC	WIN	15	0.62	1.43	0.85	130.15	130.15	0.81	0.81	0.13	161.68	83.91	1.3	161.68	83.91	1.3	0.89	0.72
EC	SPR	14	0.38	0.74	0.47	96.02	96.02	0.36	0.36	0.08	178.75	64.19	0.96	178.75	64.19	0.96	0.45	0.22
EC	SUM	15	0.67	1.08	0.85	62.13	62.13	0.41	0.41	0.06	68.74	47.78	0.62	68.74	47.78	0.62	0.48	0.72
EC	FAL	14	0.53	1.11	0.72	107.81	112.64	0.57	0.6	0.1	127.8	72.24	1.08	130.59	75.33	1.13	0.66	0.52
EC	ALL	58	0.55	1.1	0.78	98.16	99.28	0.54	0.55	0.12	133.59	66.99	0.98	134.26	67.73	0.99	0.65	0.61
NACL	WIN	15	0.09	0.17	0.43	81.98	121.41	0.08	0.11	0.03	116.05	51.66	0.82	132.56	73.32	1.21	0.19	0.18
NACL	SPR	15	0.28	0.34	0.8	24.32	69.25	0.07	0.19	0.1	120.35	42.11	0.24	134.94	65.18	0.69	0.33	0.64
NACL	SUM	16	0.07	0.1	0.74	37.9	73.26	0.03	0.05	0.01	29.52	7.07	0.38	61.54	51.48	0.73	0.08	0.55
NACL	FAL	15	0.08	0.29	0.83	266.98	278.53	0.21	0.22	0.23	168.5	52.01	2.67	182.3	68.51	2.79	0.53	0.69
NACL	ALL	61	0.13	0.23	0.61	73.21	110.71	0.1	0.14	0.1	107.31	37.7	0.73	126.75	64.41	1.11	0.32	0.38
NH4	WIN	15	1.35	1.47	0.67	9.29	31.75	0.13	0.43	0.5	12.54	6.52	0.09	27.79	23.89	0.32	0.72	0.45
NH4	SPR	15	0.89	0.75	0.79	-16.11	31.64	-0.14	0.28	0.1	-18.06	-31.67	-0.19	37.26	46.85	0.38	0.35	0.63
NH4	SUM	16	1.15	0.9	0.77	-21.59	33.41	-0.25	0.38	0.38	5.17	-9.43	-0.28	44.16	40.12	0.43	0.67	0.59
NH4	FAL	15	0.67	0.75	0.97	12.36	27.79	0.08	0.19	0.04	158.59	41.24	0.12	165.08	48.19	0.28	0.21	0.94
NH4	ALL	61	1.02	0.97	0.76	-4.83	31.58	-0.05	0.32	0.28	39	1.48	-0.05	68.17	39.77	0.33	0.53	0.58
NO3	WIN	15	2.43	2.95	0.6	21.67	44.25	0.53	1.07	2.58	24.81	8.4	0.22	48.45	39.85	0.44	1.69	0.36
NO3	SPR	15	1.28	1.02	0.7	-20.48	45.99	-0.26	0.59	0.59	-23.52	-43.1	-0.26	48.24	59.88	0.58	0.81	0.49
NO3	SUM	16	0.63	0.29	0.53	-53.49	65.64	-0.34	0.41	0.17	-59.92	-100.71	-1.15	66.83	106.43	1.41	0.53	0.28
NO3	FAL	15	1.13	1.01	0.81	-10.33	35.52	-0.12	0.4	0.23	11.73	-8.05	-0.12	52.56	48.09	0.4	0.5	0.65
NO3	ALL	61	1.35	1.3	0.76	-3.86	45.48	-0.05	0.62	0.99	-12.51	-36.93	-0.04	54.23	64.27	0.47	1	0.58
OC	WIN	15	1.31	5.74	0.68	338.39	338.39	4.43	4.43	4.87	420.13	125.72	3.38	420.13	125.72	3.38	4.95	0.46
OC	SPR	14	1.07	2.35	0.41	120.48	128.45	1.28	1.37	1.47	430.13	72.58	1.2	436.46	79.6	1.28	1.77	0.17
OC	SUM	15	1.93	2.77	0.89	44.07	45.14	0.85	0.87	0.45	42.2	32.11	0.44	44.02	34.07	0.45	1.08	0.79
OC	FAL	14	1.11	2.63	0.75	136.65	136.65	1.52	1.52	0.67	150.28	79.24	1.37	150.28	79.24	1.37	1.73	0.56
OC	ALL	58	1.36	3.4	0.45	149.86	151.76	2.04	2.07	3.94	259.67	77.46	1.5	261.67	79.66	1.52	2.85	0.2
PM-2.5	WIN	15	10.81	18.03	0.88	66.86	66.86	7.23	7.23	23.21	70.75	49.06	0.67	70.75	49.06	0.67	8.68	0.77
PM-2.5	SPR	15	8.35	8.98	0.44	7.46	32.96	0.62	2.75	12.28	10.12	2.47	0.07	32.78	30.39	0.33	3.56	0.2
PM-2.5	SUM	16	13.88	10.89	0.76	-21.55	25.88	-2.99	3.59	22.02	-17.7	-22.63	-0.27	23.85	27.92	0.33	5.57	0.58
PM-2.5	FAL	15	7.51	10.52	0.93	40.08	41.96	3.01	3.15	3.27	47.87	34.83	0.4	50.39	37.62	0.42	3.51	0.87
PM-2.5	ALL	61	10.2	12.09	0.64	18.49	40.89	1.89	4.17	29.26	27.01	15.3	0.18	44.1	36.11	0.41	5.73	0.4
SO4	WIN	15	2.08	1.84	0.67	-11.68	36.7	-0.24	0.76	0.92	-12.91	-20.44	-0.13	33.99	36.72	0.42	0.99	0.45
SO4	SPR	15	1.92	1.63	0.85	-15.41	18.7	-0.3	0.36	0.13	-13.99	-18.19	-0.18	19.39	23.27	0.22	0.47	0.73
SO4	SUM	16	3.54	2.64	0.78	-25.3	34.4	-0.89	1.22	3.08	-12.13	-18.95	-0.34	29.23	33.27	0.46	1.97	0.61
SO4	FAL	15	1.62	1.69	0.89	4.35	30.36	0.07	0.49	0.46	42	20.14	0.04	56.83	37.19	0.3	0.68	0.8
SO4	ALL	61	2.31	1.96	0.78	-15.14	31	-0.35	0.72	1.31	0.53	-9.52	-0.18	34.77	32.62	0.37	1.19	0.61

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 421010055																		
EC	WIN	14	0.83	1.6	0.92	92.51	92.51	0.77	0.77	0.12	102.95	65.12	0.93	102.95	65.12	0.93	0.85	0.85
EC	SPR	11	0.65	1.02	0.35	57	64.31	0.37	0.42	0.1	66.12	43.92	0.57	70.4	48.77	0.64	0.49	0.12
EC	SUM	16	0.99	1.32	0.7	33.43	39.07	0.33	0.39	0.13	43.77	31.01	0.33	47.23	34.72	0.39	0.48	0.5
EC	FAL	15	0.84	1.53	0.8	80.88	83.09	0.68	0.7	0.16	110.99	60.51	0.81	112.84	62.5	0.83	0.79	0.65
EC	ALL	56	0.84	1.39	0.75	64.29	67.87	0.54	0.57	0.17	80.96	49.98	0.64	83.29	52.52	0.68	0.68	0.56
NACL	WIN	14	0.09	0.17	0.5	84.8	102.73	0.08	0.1	0.03	103.33	49.1	0.85	113	60.18	1.03	0.19	0.25
NACL	SPR	13	0.33	0.33	0.79	-0.33	61.28	0	0.2	0.11	88.56	31.69	0	109.32	63.26	0.61	0.33	0.63
NACL	SUM	16	0.09	0.1	0.26	5.07	69.96	0	0.06	0.01	21.67	-15.91	0.05	76.9	60.21	0.7	0.1	0.07
NACL	FAL	15	0.11	0.29	0.57	161.88	177.37	0.18	0.2	0.21	139	39.14	1.62	157.71	63.82	1.77	0.49	0.32
NACL	ALL	58	0.15	0.22	0.58	43.91	90.84	0.07	0.14	0.09	86.72	24.69	0.44	113.78	61.82	0.91	0.31	0.34
NH4	WIN	15	1.31	1.63	0.59	24.43	31.46	0.32	0.41	0.78	27.51	16.47	0.24	32.7	21.89	0.31	0.94	0.35
NH4	SPR	13	0.89	0.81	0.72	-9.19	34.83	-0.08	0.31	0.16	-7.05	-18.1	-0.1	38.82	41.21	0.38	0.41	0.51
NH4	SUM	16	1.65	1.01	0.87	-39.03	46.5	-0.64	0.77	1.36	-2.66	-21.91	-0.64	48.28	46.56	0.76	1.33	0.77
NH4	FAL	15	0.65	0.88	0.96	34.97	38.62	0.23	0.25	0.04	244.14	59.38	0.35	245.39	60.67	0.39	0.3	0.92
NH4	ALL	59	1.14	1.09	0.63	-4.68	38.96	-0.05	0.45	0.76	66.79	9.36	-0.05	92.35	42.7	0.41	0.87	0.4
NO3	WIN	15	2.44	3.13	0.56	28.31	44.11	0.69	1.08	3.07	32.39	12.5	0.28	51.81	38.9	0.44	1.88	0.31
NO3	SPR	13	1.22	1.02	0.65	-16.43	50.7	-0.2	0.62	0.82	-18.5	-34.78	-0.2	47.07	54.33	0.61	0.93	0.43
NO3	SUM	16	0.84	0.32	0.89	-61.34	62.84	-0.51	0.53	0.21	-65.96	-107.56	-1.59	67.7	109.19	1.63	0.69	0.8
NO3	FAL	15	1.1	1.14	0.84	3.39	36.43	0.04	0.4	0.2	19.8	-0.68	0.03	57.91	51.15	0.36	0.44	0.71
NO3	ALL	59	1.4	1.4	0.73	0.1	46.89	0	0.65	1.27	-8.69	-33.83	0	56.63	64.47	0.47	1.13	0.54
OC	WIN	14	1.61	5.03	0.89	212.92	212.92	3.42	3.42	2.33	235.43	104.02	2.13	235.43	104.02	2.13	3.75	0.79
OC	SPR	11	1.55	2.55	0.06	64.61	78.28	1	1.21	1.2	95.5	48.52	0.65	104.2	58.41	0.78	1.48	0
OC	SUM	16	2.56	2.96	0.74	15.73	25.37	0.4	0.65	0.66	19.84	13.44	0.16	29.76	24.12	0.25	0.91	0.55
OC	FAL	15	1.52	2.92	0.82	92.58	92.58	1.4	1.4	0.42	111.12	65.55	0.93	111.12	65.55	0.93	1.55	0.68
OC	ALL	56	1.84	3.39	0.44	83.72	89.8	1.54	1.66	2.44	113.05	56.93	0.84	117.59	61.92	0.9	2.2	0.19
PM-2.5	WIN	15	10.63	17.55	0.82	65.07	65.07	6.92	6.92	30.88	70.06	47.6	0.65	70.06	47.6	0.65	8.87	0.67
PM-2.5	SPR	13	8.76	9.15	0.24	4.46	39.99	0.39	3.5	17.64	15.39	3.06	0.04	44.59	40.56	0.4	4.22	0.06
PM-2.5	SUM	16	17.11	11.74	0.85	-31.4	34.27	-5.37	5.86	52.93	-24.15	-30.74	-0.46	28.1	34.33	0.5	9.05	0.73
PM-2.5	FAL	15	7.61	11.83	0.86	55.42	55.65	4.22	4.24	5.74	76.54	48.84	0.55	76.8	49.11	0.56	4.85	0.74
PM-2.5	ALL	59	11.21	12.67	0.53	13.03	46.37	1.46	5.2	49.98	34.11	16.86	0.13	54.78	42.83	0.46	7.22	0.28
SO4	WIN	15	2.07	2.15	0.58	3.89	35.71	0.08	0.74	1.79	2.46	-5.81	0.04	31.89	28.22	0.36	1.34	0.34
SO4	SPR	13	1.99	1.82	0.78	-8.54	21.96	-0.17	0.44	0.21	-4.96	-9.77	-0.09	25.57	27.6	0.24	0.49	0.61
SO4	SUM	16	4.52	2.94	0.9	-34.82	38.27	-1.57	1.73	5.72	-19.33	-27.08	-0.53	29.73	35.24	0.59	2.86	0.81
SO4	FAL	15	1.62	1.97	0.89	21.91	35.55	0.35	0.57	0.4	61.81	35.17	0.22	69.67	44	0.36	0.73	0.79
SO4	ALL	59	2.6	2.25	0.77	-13.59	34.57	-0.35	0.9	2.74	10.01	-2.03	-0.16	39.52	34	0.4	1.69	0.6

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 421255001																		
EC	WIN	14	0.32	0.44	0.55	36.5	44.75	0.12	0.14	0.02	43.66	28.9	0.37	51.13	37.2	0.45	0.18	0.31
EC	SPR	11	0.31	0.35	0.84	11.62	28.67	0.04	0.09	0.01	10.53	4.57	0.12	29.66	26.71	0.29	0.11	0.7
EC	SUM	15	0.61	0.36	0.41	-40.61	40.61	-0.25	0.25	0.06	-33.4	-44.45	-0.68	33.4	44.45	0.68	0.34	0.17
EC	FAL	15	0.38	0.37	0.72	-2.74	30.26	-0.01	0.12	0.02	13.05	5.82	-0.03	34.35	31.55	0.31	0.14	0.52
EC	ALL	55	0.41	0.38	0.37	-7.97	37.01	-0.03	0.15	0.05	7.67	-2.27	-0.09	37.43	35.54	0.4	0.22	0.14
NACL	WIN	15	0.05	0.1	0.73	84.09	96.72	0.04	0.05	0	141.7	62.47	0.84	148.13	70.92	0.97	0.06	0.53
NACL	SPR	11	0.04	0.08	0.58	110.54	110.54	0.04	0.04	0	143.28	73.64	1.11	143.28	73.64	1.11	0.05	0.33
NACL	SUM	15	0.06	0.04	0.09	-35.28	57.44	-0.02	0.04	0.01	-1	-15.17	-0.55	43.23	46.43	0.89	0.08	0.01
NACL	FAL	15	0.05	0.05	0.04	8.73	84.93	0	0.04	0	49.84	7.84	0.09	93.44	71.21	0.85	0.06	0
NACL	ALL	56	0.05	0.07	0.19	29.97	83.09	0.02	0.04	0	79.18	29.24	0.3	104.43	64.97	0.83	0.06	0.04
NH4	WIN	15	0.98	0.91	0.83	-7.42	28.47	-0.07	0.28	0.12	3.1	-3.75	-0.08	31.44	30.91	0.31	0.35	0.68
NH4	SPR	11	0.79	0.89	0.78	12.5	34.73	0.1	0.28	0.19	9.46	1.45	0.13	33.45	29.59	0.35	0.45	0.61
NH4	SUM	15	1.15	0.98	0.85	-15.02	26.25	-0.17	0.3	0.13	43.27	0.35	-0.18	74.9	38.79	0.31	0.4	0.73
NH4	FAL	15	0.5	0.58	0.83	16.8	41.27	0.08	0.21	0.05	246.75	43.9	0.17	262.12	61.9	0.41	0.24	0.68
NH4	ALL	56	0.86	0.84	0.8	-2.79	30.79	-0.02	0.27	0.13	80.37	11.13	-0.03	105.27	41.06	0.32	0.36	0.65
NO3	WIN	15	1.49	1.79	0.49	19.73	52.67	0.29	0.79	1.4	37.02	12	0.2	59.8	45.76	0.53	1.22	0.24
NO3	SPR	11	0.75	1.2	0.23	60.15	111.7	0.45	0.84	1.93	100.62	-16.93	0.6	167.57	82.49	1.12	1.46	0.05
NO3	SUM	15	0.23	0.14	0.07	-40.18	59.32	-0.09	0.14	0.02	-32.57	-61.76	-0.67	62.75	75.92	0.99	0.17	0
NO3	FAL	15	0.58	0.54	0.74	-6.01	42.84	-0.03	0.25	0.1	17.6	-11.76	-0.06	68.78	57.19	0.46	0.32	0.55
NO3	ALL	56	0.76	0.9	0.61	17.45	62.61	0.13	0.48	0.83	25.67	-19.8	0.17	84.17	64.12	0.63	0.92	0.37
OC	WIN	14	0.99	1.94	0.76	95.4	95.4	0.95	0.95	0.34	120.05	65.36	0.95	120.05	65.36	0.95	1.12	0.58
OC	SPR	11	0.88	1.3	0.73	48.67	52.8	0.43	0.46	0.26	49.81	32.25	0.49	55.27	38.04	0.53	0.66	0.54
OC	SUM	15	1.85	1.68	0.33	-9.22	34.99	-0.17	0.65	0.69	-3.57	-11.23	-0.1	33.64	33.64	0.39	0.85	0.11
OC	FAL	15	0.96	1.18	0.72	23.39	39.15	0.22	0.37	0.13	51.61	31.47	0.23	61.02	41.76	0.39	0.43	0.52
OC	ALL	55	1.19	1.53	0.48	28.6	51.33	0.34	0.61	0.53	53.62	28.61	0.29	67.43	44.81	0.51	0.81	0.23
PM-2.5	WIN	15	8.11	8.39	0.84	3.41	21.25	0.28	1.72	4.22	4.72	1.28	0.03	22.78	22.31	0.21	2.07	0.7
PM-2.5	SPR	11	7.42	7.06	0.8	-4.76	28.38	-0.35	2.11	6.41	-9.73	-17.41	-0.05	31	34.82	0.3	2.56	0.64
PM-2.5	SUM	15	15.82	9.38	0.81	-40.69	40.69	-6.44	6.44	10.42	-40.52	-52.61	-0.69	40.52	52.61	0.69	7.2	0.65
PM-2.5	FAL	15	6.86	5.77	0.76	-15.86	30.3	-1.09	2.08	6.18	-3.49	-8.62	-0.19	27.93	29.21	0.36	2.71	0.58
PM-2.5	ALL	56	9.71	7.69	0.71	-20.72	32.52	-2.01	3.16	14.26	-12.44	-19.48	-0.26	30.52	34.73	0.41	4.28	0.51
SO4	WIN	15	2.24	1.26	0.91	-43.55	43.55	-0.97	0.97	0.44	-41.79	-54.87	-0.77	41.79	54.87	0.77	1.18	0.82
SO4	SPR	11	2.26	1.71	0.72	-24.47	31.55	-0.55	0.71	1.09	-22.43	-32.04	-0.32	28.6	37.56	0.42	1.18	0.51
SO4	SUM	15	5.15	4.05	0.96	-21.43	23.01	-1.1	1.19	0.78	-16.45	-22.75	-0.27	28.78	31.18	0.29	1.41	0.91
SO4	FAL	15	1.98	1.49	0.81	-24.44	34.83	-0.48	0.69	0.5	-16.01	-23.31	-0.32	31.84	37.35	0.46	0.86	0.65
SO4	ALL	56	2.95	2.16	0.93	-26.92	30.58	-0.8	0.9	0.74	-24.29	-33.33	-0.37	33.05	40.43	0.42	1.17	0.87

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 421290008																		
EC	WIN	15	0.67	0.61	0.16	-8.02	48.35	-0.05	0.32	0.2	17.41	-0.15	-0.09	52.8	48.41	0.53	0.45	0.02
EC	SPR	15	0.54	0.34	0.63	-37.14	39.67	-0.2	0.21	0.05	-31.19	-42.61	-0.59	34.52	45.72	0.63	0.3	0.39
EC	SUM	9	0.88	0.38	0.63	-56.79	56.79	-0.5	0.5	0.06	-53.7	-75.52	-1.31	53.7	75.52	1.31	0.56	0.4
EC	FAL	6	0.49	0.41	0.72	-17.08	23.85	-0.08	0.12	0.03	-8.86	-12.14	-0.21	18.7	21.2	0.29	0.19	0.52
EC	ALL	45	0.64	0.45	0.29	-30.46	45.76	-0.2	0.29	0.13	-16.52	-30.97	-0.44	42.34	49.31	0.66	0.41	0.08
NACL	WIN	15	0.11	0.15	0.67	32.44	57.36	0.04	0.06	0	70.91	37.75	0.32	84.57	54.45	0.57	0.08	0.44
NACL	SPR	14	0.04	0.08	0.1	93.05	116.07	0.04	0.05	0	183.04	56.1	0.93	194.15	69.03	1.16	0.07	0.01
NACL	SUM	15	0.04	0.03	0.23	-33.61	41.64	-0.02	0.02	0	-24.32	-35.69	-0.51	35.09	44.74	0.63	0.03	0.05
NACL	FAL	14	0.06	0.07	0.49	4.47	65.53	0	0.04	0	42.38	11	0.04	77.69	55.92	0.66	0.06	0.24
NACL	ALL	58	0.07	0.08	0.59	23.74	65.68	0.02	0.04	0	66.46	16.73	0.24	96.56	55.81	0.66	0.06	0.35
NH4	WIN	15	1.16	1.02	0.92	-11.57	21.51	-0.13	0.25	0.07	-1.32	-9.62	-0.13	30.93	29.12	0.24	0.3	0.84
NH4	SPR	13	1.04	1.04	0.8	-0.51	29.42	-0.01	0.31	0.19	-3.38	-9.43	-0.01	27.67	29.85	0.3	0.43	0.64
NH4	SUM	15	1.5	1.01	0.84	-32.36	38.87	-0.48	0.58	0.41	10.97	-13.91	-0.48	58.94	47.24	0.57	0.8	0.71
NH4	FAL	14	0.72	0.66	0.85	-7.9	38.5	-0.06	0.28	0.1	96.97	14.27	-0.09	127.41	50.13	0.42	0.32	0.73
NH4	ALL	57	1.11	0.93	0.77	-15.99	32.04	-0.18	0.36	0.23	25.58	-4.84	-0.19	61.25	39.21	0.38	0.51	0.6
NO3	WIN	15	1.89	1.98	0.76	4.74	35.37	0.09	0.67	0.77	9.31	-5.5	0.05	42.41	42.46	0.35	0.88	0.58
NO3	SPR	14	0.87	1.03	0.68	18.7	67.41	0.16	0.59	0.78	7.03	-31.55	0.19	77.06	76.11	0.67	0.9	0.46
NO3	SUM	15	0.45	0.17	0.37	-61.69	65.25	-0.28	0.29	0.05	-60.84	-98.47	-1.61	64.94	102.02	1.7	0.36	0.14
NO3	FAL	14	0.77	0.61	0.61	-20.91	51.75	-0.16	0.4	0.19	7.43	-27.1	-0.26	75.73	67.46	0.65	0.47	0.37
NO3	ALL	58	1	0.95	0.8	-4.85	48.61	-0.05	0.49	0.48	-9.84	-41.04	-0.05	64.65	72.02	0.51	0.69	0.64
OC	WIN	15	1.45	2.74	0.64	88.7	93.53	1.29	1.36	0.96	109.65	57.84	0.89	114.07	62.66	0.94	1.62	0.41
OC	SPR	15	1.29	1.34	0.68	3.55	29.13	0.05	0.38	0.31	17.69	8.4	0.04	33.32	26.88	0.29	0.56	0.46
OC	SUM	9	2.7	1.9	0.52	-29.52	39.63	-0.8	1.07	1.49	-17.73	-28.5	-0.42	36.3	43.06	0.56	1.46	0.27
OC	FAL	6	1.11	1.57	0.9	41.62	41.62	0.46	0.46	0.07	65.54	44.15	0.42	65.54	44.15	0.42	0.53	0.81
OC	ALL	45	1.6	1.95	0.41	21.68	53.28	0.35	0.85	1.32	47.64	22.27	0.22	65.13	44.35	0.53	1.2	0.17
PM-2.5	WIN	15	11.21	10.21	0.84	-8.95	19.84	-1	2.22	6.08	-8.77	-12.59	-0.1	21.77	23.46	0.22	2.66	0.7
PM-2.5	SPR	14	8.89	7.27	0.68	-18.29	31.31	-1.63	2.78	10.01	-17.45	-25.06	-0.22	29.24	35.35	0.38	3.56	0.46
PM-2.5	SUM	15	16.45	8.9	0.88	-45.91	46.99	-7.55	7.73	18.82	-39.21	-53.52	-0.85	46.27	59.11	0.87	8.71	0.77
PM-2.5	FAL	14	10.29	6.56	0.66	-36.3	40.12	-3.74	4.13	54.57	-18.64	-26.52	-0.57	27.99	34.95	0.63	8.28	0.43
PM-2.5	ALL	58	11.79	8.28	0.62	-29.76	36	-3.51	4.24	28.75	-21.12	-29.55	-0.42	31.41	38.32	0.51	6.41	0.39
SO4	WIN	15	2.21	1.3	0.9	-41.02	41.1	-0.91	0.91	0.43	-37.63	-48.12	-0.7	37.73	48.22	0.7	1.12	0.8
SO4	SPR	14	2.36	2.06	0.83	-12.96	27.65	-0.31	0.65	0.61	-11.68	-18.44	-0.15	28.95	32.9	0.32	0.84	0.68
SO4	SUM	15	5.06	3.35	0.9	-33.71	35.61	-1.71	1.8	2.34	-22.34	-30.49	-0.51	34.1	40.11	0.54	2.29	0.81
SO4	FAL	14	2.22	1.73	0.93	-21.88	27.25	-0.49	0.61	0.33	-16.56	-22.34	-0.28	27.39	31.81	0.35	0.75	0.86
SO4	ALL	58	2.99	2.12	0.9	-29.02	33.64	-0.87	1	1.24	-22.33	-30.17	-0.41	32.17	38.46	0.47	1.41	0.81

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 421330008																		
EC	WIN	15	0.65	1.02	0.93	56.28	56.28	0.37	0.37	0.02	75.34	50.38	0.56	75.34	50.38	0.56	0.39	0.87
EC	SPR	11	0.42	0.6	0.55	44.63	47.72	0.19	0.2	0.05	43.4	28.67	0.45	47.43	32.84	0.48	0.3	0.3
EC	SUM	15	0.78	0.79	0.61	0.19	26.91	0	0.21	0.07	2.56	-2.73	0	27.57	25.77	0.27	0.27	0.37
EC	FAL	14	0.77	0.8	0.78	4.58	27.43	0.04	0.21	0.08	20.88	12.22	0.05	35.31	29.09	0.27	0.28	0.61
EC	ALL	55	0.67	0.82	0.68	21.84	37.42	0.15	0.25	0.08	35.24	21.84	0.22	46.54	34.74	0.37	0.31	0.47
NACL	WIN	15	0.11	0.21	0.91	90.86	91.29	0.1	0.1	0	153.78	73.76	0.91	154.14	74.13	0.91	0.12	0.83
NACL	SPR	14	0.09	0.19	0.12	109.82	145.89	0.1	0.13	0.02	186.29	67.13	1.1	197.93	83.13	1.46	0.17	0.02
NACL	SUM	16	0.05	0.09	0.57	78.18	85.59	0.04	0.04	0	97.43	49.78	0.78	105.07	59.78	0.86	0.05	0.33
NACL	FAL	15	0.07	0.23	0.71	232.39	242.64	0.16	0.17	0.12	181.04	68.56	2.32	188.61	79.15	2.43	0.38	0.5
NACL	ALL	60	0.08	0.18	0.46	125.27	138.43	0.1	0.11	0.04	153.15	64.52	1.25	159.89	73.66	1.38	0.22	0.22
NH4	WIN	15	1.36	1.31	0.82	-3.19	22.47	-0.04	0.3	0.14	1.31	-2.41	-0.03	23.54	22.87	0.23	0.38	0.67
NH4	SPR	14	1.15	1.05	0.7	-9.02	38.8	-0.1	0.45	0.32	-4.57	-15.42	-0.1	41.52	41.27	0.43	0.57	0.49
NH4	SUM	16	1.25	1.36	0.79	9.25	31.64	0.12	0.39	0.31	21.22	10.51	0.09	38.29	30.9	0.32	0.57	0.62
NH4	FAL	14	0.6	0.93	0.8	55.82	58.14	0.33	0.35	0.09	168.26	60.47	0.56	169.31	61.55	0.58	0.45	0.64
NH4	ALL	59	1.1	1.17	0.77	6.81	33.97	0.07	0.37	0.24	44.93	12.93	0.07	66.39	38.59	0.34	0.5	0.59
NO3	WIN	15	2.62	2.79	0.63	6.55	34.45	0.17	0.9	1.65	19.92	4.73	0.07	44.51	35.48	0.34	1.3	0.4
NO3	SPR	14	1.78	1.63	0.81	-8.44	37.43	-0.15	0.67	0.84	-2.63	-19.07	-0.09	48.5	49.04	0.41	0.93	0.66
NO3	SUM	16	0.69	0.94	0.34	36.26	92.01	0.25	0.64	0.82	37.63	-7.11	0.36	88.86	66.33	0.92	0.94	0.12
NO3	FAL	15	1.06	1.45	0.55	36.86	61.75	0.39	0.65	0.51	70.35	31.87	0.37	88.53	56	0.62	0.82	0.3
NO3	ALL	60	1.52	1.69	0.74	11.33	47.01	0.17	0.71	0.99	31.99	2.81	0.11	68.28	52	0.47	1.01	0.54
OC	WIN	15	1.6	5.39	0.78	236.87	236.87	3.79	3.79	2.33	277.66	110.16	2.37	277.66	110.16	2.37	4.08	0.61
OC	SPR	11	0.92	2.41	0.64	161.3	166.6	1.49	1.53	1.33	158.1	76.18	1.61	163.08	81.96	1.67	1.88	0.41
OC	SUM	15	2.54	2.91	0.45	14.56	35.67	0.37	0.91	1.99	23.17	13.19	0.15	33.37	26.63	0.36	1.46	0.2
OC	FAL	14	1.4	2.59	0.8	85.33	85.33	1.19	1.19	0.68	110.51	63.54	0.85	110.51	63.54	0.85	1.45	0.64
OC	ALL	55	1.67	3.4	0.41	103.97	113.32	1.73	1.89	3.36	141.79	65.05	1.04	145.57	69.87	1.13	2.52	0.17
PM-2.5	WIN	15	11.58	15.87	0.83	37.08	37.67	4.29	4.36	10.52	46.81	33.73	0.37	47.38	34.3	0.38	5.38	0.7
PM-2.5	SPR	14	8.66	9.63	0.68	11.28	29.27	0.98	2.53	13.43	9.19	0.88	0.11	31.39	29.61	0.29	3.79	0.47
PM-2.5	SUM	16	14.71	12.15	0.77	-17.4	27.53	-2.56	4.05	16.06	-17.45	-22.37	-0.21	26.97	30.87	0.33	4.76	0.59
PM-2.5	FAL	15	7.54	9.89	0.82	31.14	38.45	2.35	2.9	6	50.1	34.93	0.31	53.62	38.71	0.38	3.39	0.67
PM-2.5	ALL	60	10.72	11.93	0.71	11.24	32.52	1.21	3.49	18.05	21.72	11.4	0.11	39.76	33.4	0.33	4.42	0.51
SO4	WIN	15	2.11	1.52	0.67	-28.19	34.93	-0.6	0.74	0.4	-26.2	-34.01	-0.39	32.61	39.72	0.49	0.87	0.45
SO4	SPR	14	2.07	1.74	0.72	-16.1	30.27	-0.33	0.63	0.55	-15.29	-22.51	-0.19	28.76	33.81	0.36	0.81	0.51
SO4	SUM	16	3.68	3.11	0.86	-15.51	27.42	-0.57	1.01	1.15	-9.78	-15.55	-0.18	29.23	31.13	0.32	1.22	0.73
SO4	FAL	15	1.54	1.48	0.77	-4.22	31.32	-0.07	0.48	0.56	12.19	-0.62	-0.04	38.79	33.64	0.33	0.75	0.6
SO4	ALL	60	2.38	1.98	0.85	-16.61	30.3	-0.4	0.72	0.72	-9.68	-18.06	-0.2	32.35	34.53	0.36	0.94	0.71

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 440071010																		
EC	WIN	23	0.63	1.28	0.83	102.92	102.92	0.65	0.65	0.1	137.12	74.01	1.03	137.12	74.01	1.03	0.72	0.69
EC	SPR	24	0.29	0.69	0.53	137.01	137.01	0.4	0.4	0.05	197.38	85.21	1.37	197.38	85.21	1.37	0.45	0.29
EC	SUM	24	0.47	0.59	0.64	25.13	41.03	0.12	0.19	0.04	58.39	32.04	0.25	68.49	43.67	0.41	0.23	0.41
EC	FAL	23	0.55	0.86	0.74	55.39	61.97	0.31	0.34	0.08	102.91	51.4	0.55	106.34	55.17	0.62	0.41	0.55
EC	ALL	94	0.49	0.85	0.72	75.48	81.28	0.37	0.39	0.1	124.03	60.62	0.75	127.45	64.51	0.81	0.49	0.51
NACL	WIN	28	0.15	0.15	0.02	3.21	89.66	0	0.13	0.05	81.7	22.29	0.03	111.46	66.02	0.9	0.23	0
NACL	SPR	29	0.18	0.3	0.84	71.41	87.3	0.13	0.16	0.06	216.79	54.25	0.71	227.55	68.59	0.87	0.28	0.71
NACL	SUM	29	0.11	0.16	0.31	49.86	95.19	0.05	0.1	0.03	124.96	25.57	0.5	156.39	71.62	0.95	0.19	0.09
NACL	FAL	30	0.15	0.2	0.72	31.53	75.59	0.05	0.12	0.03	102.76	32	0.32	128.69	64.39	0.76	0.19	0.52
NACL	ALL	116	0.15	0.21	0.66	40.05	86.16	0.06	0.13	0.05	131.73	33.61	0.4	156.17	67.64	0.86	0.23	0.44
NH4	WIN	28	0.85	1.13	0.74	33.55	50.13	0.28	0.43	0.25	89.99	44.63	0.34	96.73	52.55	0.5	0.58	0.54
NH4	SPR	30	0.53	0.77	0.76	46.26	54.25	0.24	0.29	0.09	128	48.24	0.46	131.49	52.25	0.54	0.38	0.57
NH4	SUM	29	0.42	0.52	0.74	24.27	51.72	0.1	0.22	0.09	154.62	37.88	0.24	171.29	58.74	0.52	0.31	0.55
NH4	FAL	29	0.4	0.66	0.74	66.57	75.47	0.27	0.3	0.08	259.99	73.78	0.67	263.36	77.71	0.75	0.39	0.55
NH4	ALL	116	0.55	0.77	0.77	40.98	56.09	0.22	0.31	0.13	158.48	51.16	0.41	166.02	60.31	0.56	0.42	0.59
NO3	WIN	28	1.42	2.39	0.78	68.29	73.49	0.97	1.04	0.96	109.12	53.93	0.68	114.3	60.45	0.73	1.38	0.6
NO3	SPR	30	0.59	0.87	0.48	48.51	81.11	0.28	0.47	0.5	58.37	20.45	0.49	86.25	59.37	0.81	0.76	0.23
NO3	SUM	30	0.34	0.15	0.24	-56	73.49	-0.19	0.25	0.05	-45.57	-95.69	-1.27	80.81	107.54	1.67	0.3	0.06
NO3	FAL	30	0.53	0.82	0.82	56.14	77.7	0.3	0.41	0.31	36.93	13.16	0.56	66.01	53.35	0.78	0.63	0.67
NO3	ALL	118	0.71	1.03	0.8	46.44	75.89	0.33	0.54	0.62	38.54	-2.99	0.46	86.38	70.34	0.76	0.85	0.64
OC	WIN	23	1.63	6.01	0.74	269.28	269.28	4.38	4.38	4.37	348.14	116.8	2.69	348.14	116.8	2.69	4.86	0.55
OC	SPR	24	0.9	2.58	0.48	188.72	188.9	1.69	1.69	1.21	374.61	100.21	1.89	374.69	100.29	1.89	2.02	0.23
OC	SUM	24	1.64	1.79	0.85	9.14	22.27	0.15	0.37	0.26	24.24	14.68	0.09	33.54	25.33	0.22	0.53	0.72
OC	FAL	23	1.35	2.53	0.83	87.7	88.13	1.18	1.19	0.83	118.51	64.4	0.88	118.97	64.86	0.88	1.49	0.69
OC	ALL	94	1.38	3.21	0.53	133.06	137.2	1.83	1.89	4.07	216.01	73.67	1.33	218.52	76.52	1.37	2.73	0.29
PM-2.5	WIN	29	10.08	16.56	0.86	64.28	64.28	6.48	6.48	12.99	78.27	52.43	0.64	78.27	52.43	0.64	7.41	0.75
PM-2.5	SPR	30	6.63	9.01	0.6	35.98	47.21	2.38	3.13	9.56	47.64	32.21	0.36	53.62	39.11	0.47	3.9	0.36
PM-2.5	SUM	29	9.66	6.58	0.74	-31.84	35.89	-3.07	3.47	8.92	-23.95	-33.59	-0.47	36.19	43.06	0.53	4.29	0.55
PM-2.5	FAL	30	7.92	8.54	0.69	7.89	34.66	0.62	2.75	11.8	29.39	14.48	0.08	47.38	36.53	0.35	3.49	0.47
PM-2.5	ALL	118	8.55	10.15	0.63	18.74	46.06	1.6	3.94	22.43	32.94	16.5	0.19	53.81	42.7	0.46	5	0.4
SO4	WIN	28	1.79	1.37	0.57	-23.38	33.51	-0.42	0.6	0.69	-14.53	-21.57	-0.31	27.45	31.69	0.44	0.93	0.33
SO4	SPR	30	1.61	1.91	0.81	18.5	32.15	0.3	0.52	0.48	22.25	14.84	0.18	34.09	28.16	0.32	0.75	0.66
SO4	SUM	30	1.76	1.8	0.76	2.56	37.28	0.05	0.66	0.81	19.41	1.88	0.03	49.51	39.77	0.37	0.9	0.57
SO4	FAL	30	1.57	1.53	0.87	-2.87	21.72	-0.05	0.34	0.27	10.93	2.76	-0.03	30.57	25.11	0.22	0.52	0.76
SO4	ALL	118	1.68	1.66	0.72	-1.39	31.38	-0.02	0.53	0.63	9.92	-0.16	-0.01	35.54	31.18	0.32	0.79	0.52

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 450250001																		
EC	WIN	15	0.37	0.37	0.5	1.57	35.73	0.01	0.13	0.03	7.4	0.65	0.02	31.85	31.39	0.36	0.18	0.25
EC	SPR	15	0.39	0.31	0.86	-21.2	28.8	-0.08	0.11	0.01	-26.11	-33.55	-0.27	31.6	38.11	0.37	0.13	0.74
EC	SUM	16	0.49	0.22	0.78	-55.38	55.85	-0.27	0.27	0.02	-49.66	-70.13	-1.24	52.15	72.39	1.25	0.3	0.61
EC	FAL	15	0.39	0.23	0.77	-40.57	43.07	-0.16	0.17	0.04	-30.37	-40.61	-0.68	34.92	44.82	0.72	0.25	0.6
EC	ALL	61	0.41	0.28	0.48	-31.43	42.12	-0.13	0.17	0.03	-25.1	-36.47	-0.46	37.87	47.1	0.61	0.23	0.23
NACL	WIN	14	0.13	0.14	0.13	9.05	120.37	0.01	0.15	0.11	231.73	36.82	0.09	252.63	71.13	1.2	0.33	0.02
NACL	SPR	15	0.14	0.22	0.57	61.72	96.77	0.08	0.13	0.03	183.71	52.14	0.62	196.1	66.99	0.97	0.19	0.32
NACL	SUM	16	0.07	0.08	0.72	10.53	57.78	0.01	0.04	0	3.2	-14.51	0.11	52.91	52.76	0.58	0.06	0.52
NACL	FAL	14	0.06	0.08	0.38	23.97	74.38	0.02	0.05	0.01	55.37	22.38	0.24	75.85	49.75	0.74	0.07	0.15
NACL	ALL	59	0.1	0.13	0.35	29.76	92.63	0.03	0.09	0.04	115.7	23.37	0.3	142.15	60.02	0.93	0.19	0.12
NH4	WIN	14	0.61	0.66	0.85	8.03	29.96	0.05	0.18	0.05	48.05	22.59	0.08	61.86	39.68	0.3	0.23	0.71
NH4	SPR	14	0.78	0.84	0.68	8.14	51.87	0.06	0.4	0.24	36.66	3.39	0.08	77.84	66.47	0.52	0.49	0.46
NH4	SUM	16	0.75	0.76	0.68	1.95	27.91	0.01	0.21	0.11	12.35	4.41	0.02	30.25	26.65	0.28	0.33	0.46
NH4	FAL	14	0.29	0.52	0.74	80.25	86.35	0.23	0.25	0.03	218.8	70.71	0.8	220.93	73.02	0.86	0.3	0.54
NH4	ALL	58	0.61	0.7	0.73	14.21	42.39	0.09	0.26	0.11	76.67	24.56	0.14	95.4	50.6	0.42	0.35	0.53
NO3	WIN	15	0.59	0.81	0.44	37.55	78.8	0.22	0.46	0.41	208.1	16.36	0.38	245.21	70.25	0.79	0.68	0.19
NO3	SPR	15	0.58	0.62	0.8	6.6	53.64	0.04	0.31	0.21	42.71	-2.77	0.07	87.53	60.77	0.54	0.46	0.65
NO3	SUM	16	0.19	0.1	0.49	-46.54	49.74	-0.09	0.09	0	-46.09	-68.04	-0.87	48.54	70.27	0.93	0.11	0.24
NO3	FAL	14	0.23	0.34	0.35	49.42	85.72	0.11	0.2	0.07	62.58	12.24	0.49	97.44	65.1	0.86	0.28	0.12
NO3	ALL	60	0.4	0.46	0.7	17.08	66.81	0.07	0.26	0.18	65.01	-11.89	0.17	118.87	66.68	0.67	0.43	0.49
OC	WIN	15	1.26	1.76	0.51	39.69	60.87	0.5	0.77	0.79	45.63	27.74	0.4	58.49	43.51	0.61	1.02	0.26
OC	SPR	15	1.73	2	0.82	15.73	36.17	0.27	0.63	0.7	7.62	-1.25	0.16	34.11	31.84	0.36	0.88	0.67
OC	SUM	16	2.8	3.31	0.39	18.32	50.9	0.51	1.42	3.46	25.12	8.78	0.18	49.4	41.86	0.51	1.93	0.15
OC	FAL	15	1.43	1.45	0.68	0.96	42.88	0.01	0.61	0.76	9.83	-0.54	0.01	43.2	41.74	0.43	0.87	0.46
OC	ALL	61	1.82	2.15	0.62	17.99	47.6	0.33	0.87	1.5	22.1	8.68	0.18	46.35	39.77	0.48	1.27	0.38
PM-2.5	WIN	15	6.84	6.66	0.69	-2.68	26.43	-0.18	1.81	5.53	22.63	1.22	-0.03	47.63	32.34	0.27	2.36	0.47
PM-2.5	SPR	15	10.57	7.9	0.79	-25.22	32.83	-2.67	3.47	7.78	-28.18	-37.79	-0.34	34.51	43.42	0.44	3.86	0.63
PM-2.5	SUM	16	14.97	8.74	0.67	-41.63	44.17	-6.23	6.61	19.53	-40.83	-55.88	-0.71	44	58.69	0.76	7.64	0.45
PM-2.5	FAL	15	7.13	5.34	0.86	-25.12	25.64	-1.79	1.83	4.79	-22.16	-27.63	-0.34	23.08	28.54	0.34	2.83	0.75
PM-2.5	ALL	61	9.96	7.19	0.71	-27.87	34.96	-2.78	3.48	14.6	-17.52	-30.45	-0.39	37.41	41.04	0.48	4.72	0.51
SO4	WIN	15	1.54	1.33	0.89	-13.91	29.62	-0.21	0.46	0.32	211.44	2.46	-0.16	241.39	38.16	0.34	0.61	0.8
SO4	SPR	15	2.38	2.27	0.56	-4.43	31.14	-0.11	0.74	1.34	380.9	-1.9	-0.05	409.81	38.81	0.33	1.16	0.31
SO4	SUM	16	3.33	2.15	0.63	-35.62	39.86	-1.19	1.33	1.55	-32.83	-44.96	-0.55	38.2	49.38	0.62	1.72	0.39
SO4	FAL	14	1.52	1.3	0.75	-14.61	25.62	-0.22	0.39	0.26	-9.31	-15.91	-0.17	24.39	29.63	0.3	0.55	0.57
SO4	ALL	60	2.22	1.77	0.68	-20.17	33.48	-0.45	0.74	1.09	137.16	-15.56	-0.25	178.68	39.33	0.42	1.14	0.46

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 450790007																		
EC	WIN	23	0.77	0.91	0.76	18.08	39.58	0.14	0.31	0.13	41.36	26.48	0.18	52.72	39.73	0.4	0.39	0.57
EC	SPR	24	0.48	0.55	0.63	15.17	31.16	0.07	0.15	0.04	23.46	15.04	0.15	36.05	29.32	0.31	0.21	0.39
EC	SUM	29	0.55	0.62	0.73	13.2	24.77	0.07	0.14	0.02	13.84	9.12	0.13	26.3	24.16	0.25	0.16	0.54
EC	FAL	30	0.6	0.69	0.72	15.69	28.77	0.09	0.17	0.05	26.49	16.51	0.16	35.28	26.57	0.29	0.24	0.52
EC	ALL	106	0.6	0.69	0.75	15.64	31.24	0.09	0.19	0.06	25.57	16.32	0.16	36.78	29.39	0.31	0.26	0.56
NACL	WIN	28	0.07	0.15	0.74	123.68	144.61	0.08	0.1	0.04	126.97	53.65	1.24	139.43	68.24	1.45	0.21	0.54
NACL	SPR	29	0.13	0.19	0.7	42.46	65.4	0.06	0.09	0.02	104.38	31.32	0.42	124.1	56.83	0.65	0.15	0.49
NACL	SUM	29	0.09	0.11	0.65	22.62	77.15	0.02	0.07	0.02	-0.53	-26.55	0.23	60.71	60.2	0.77	0.15	0.43
NACL	FAL	29	0.09	0.14	0.54	44.58	87.72	0.04	0.08	0.02	43.82	7.7	0.45	79.72	55.87	0.88	0.15	0.29
NACL	ALL	115	0.1	0.15	0.61	52.16	87.23	0.05	0.08	0.03	68.15	16.2	0.52	100.66	60.22	0.87	0.17	0.38
NH4	WIN	28	0.77	0.86	0.73	12.25	51.41	0.09	0.4	0.27	138.77	34.36	0.12	156.6	56.15	0.51	0.53	0.54
NH4	SPR	29	0.78	0.69	0.4	-11.69	45.08	-0.09	0.35	0.19	10.62	-10.83	-0.13	55.64	55.55	0.51	0.45	0.16
NH4	SUM	29	0.75	0.73	0.67	-1.83	33.54	-0.01	0.25	0.1	6.92	-6.27	-0.02	40.78	40.89	0.34	0.32	0.45
NH4	FAL	29	0.36	0.66	0.75	83.54	83.73	0.3	0.3	0.06	145.58	63.08	0.84	145.79	63.29	0.84	0.38	0.56
NH4	ALL	115	0.66	0.73	0.63	10.9	48.86	0.07	0.32	0.18	74.92	19.96	0.11	99.21	53.95	0.49	0.43	0.4
NO3	WIN	28	0.96	1.25	0.78	30.24	59.15	0.29	0.57	0.68	53.01	13.43	0.3	81.57	55.86	0.59	0.87	0.6
NO3	SPR	29	0.48	0.3	0.25	-37.69	66.99	-0.18	0.32	0.22	-24.86	-56.42	-0.6	65	79.62	1.08	0.5	0.06
NO3	SUM	29	0.22	0.12	0.07	-42.73	65.67	-0.09	0.14	0.03	-36.69	-70.2	-0.75	64.2	85.28	1.15	0.19	0
NO3	FAL	29	0.3	0.48	0.68	58.97	95.01	0.18	0.29	0.17	39.59	-2.94	0.59	87.58	68.32	0.95	0.45	0.46
NO3	ALL	115	0.49	0.53	0.74	9.73	67.49	0.05	0.33	0.31	7.37	-29.4	0.1	74.53	72.41	0.67	0.55	0.55
OC	WIN	23	2.24	3.11	0.84	38.99	45.06	0.87	1.01	1.44	49.82	33.92	0.39	54.44	39.07	0.45	1.48	0.7
OC	SPR	24	2.08	2.36	0.87	13.49	32.14	0.28	0.67	0.62	19.06	11.51	0.13	35.44	32.3	0.32	0.83	0.75
OC	SUM	30	2.86	4.09	0.31	43.13	67.15	1.23	1.92	4.87	59.43	31.98	0.43	73.74	49.98	0.67	2.53	0.09
OC	FAL	30	2	2.55	0.63	27.55	46.82	0.55	0.94	1.31	35.43	20.8	0.28	49.85	38.41	0.47	1.27	0.4
OC	ALL	107	2.31	3.06	0.63	32.5	50.54	0.75	1.17	2.31	41.58	24.67	0.32	54.3	40.43	0.51	1.69	0.4
PM-2.5	WIN	28	10.02	10.7	0.86	6.8	26.06	0.68	2.61	9.81	7.04	2.86	0.07	25.45	24.5	0.26	3.21	0.73
PM-2.5	SPR	30	13.58	8.92	0.45	-34.28	38.78	-4.66	5.27	41.93	-27.11	-37.65	-0.52	32.03	42.07	0.59	7.97	0.21
PM-2.5	SUM	29	15.58	10.5	0.29	-32.58	38.97	-5.08	6.07	39.81	-28.18	-40.14	-0.48	36.89	47.76	0.58	8.1	0.09
PM-2.5	FAL	29	9.72	8.69	0.78	-10.65	23.5	-1.04	2.29	7.91	-8.38	-13.38	-0.12	25.17	26.75	0.26	3	0.62
PM-2.5	ALL	116	12.26	9.69	0.51	-20.95	33.3	-2.57	4.08	30.97	-14.45	-22.43	-0.27	29.94	35.42	0.42	6.13	0.26
SO4	WIN	28	1.77	1.62	0.62	-8.47	34.68	-0.15	0.61	0.73	8.64	-1.6	-0.09	37.97	33.57	0.38	0.87	0.39
SO4	SPR	29	2.8	2.05	0.3	-26.88	40.01	-0.75	1.12	2.3	-12.19	-22.69	-0.37	33.35	40.8	0.55	1.69	0.09
SO4	SUM	29	3.43	2.15	0.63	-37.1	39.5	-1.27	1.35	1.24	-35.31	-47.64	-0.59	38.45	50.27	0.63	1.69	0.4
SO4	FAL	29	1.79	1.7	0.81	-4.97	23.96	-0.09	0.43	0.33	-1.73	-7.35	-0.05	25.39	26.25	0.25	0.58	0.65
SO4	ALL	115	2.45	1.88	0.59	-23.22	35.94	-0.57	0.88	1.39	-10.31	-19.98	-0.3	33.75	37.76	0.47	1.31	0.34

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 470370023																		
EC	WIN	13	0.61	1.09	0.74	78.28	79.4	0.48	0.49	0.13	93.35	57.02	0.78	93.94	57.62	0.79	0.6	0.55
EC	SPR	15	0.55	0.78	0.74	41.98	45.32	0.23	0.25	0.04	56.14	38.95	0.42	57.84	40.75	0.45	0.31	0.54
EC	SUM	14	0.89	0.95	0.53	6.35	17.06	0.06	0.15	0.04	9.19	6.28	0.06	18.24	16.32	0.17	0.21	0.28
EC	FAL	15	0.9	1.14	0.76	27.62	39.54	0.25	0.35	0.13	54.83	33.25	0.28	62.5	42.09	0.4	0.44	0.58
EC	ALL	57	0.74	0.99	0.69	33.72	41.55	0.25	0.31	0.11	52.75	33.55	0.34	57.57	38.95	0.42	0.41	0.47
NACL	WIN	12	0.05	0.08	0.43	52.18	64.22	0.03	0.03	0	87.22	46.96	0.52	92.61	53.39	0.64	0.04	0.18
NACL	SPR	15	0.11	0.12	0.72	10.63	67.93	0.01	0.07	0.01	32.8	-2.38	0.11	79.3	63.26	0.68	0.11	0.52
NACL	SUM	16	0.08	0.05	0.66	-38.86	45.31	-0.03	0.04	0	-33.52	-49.61	-0.64	45.11	59.06	0.74	0.05	0.44
NACL	FAL	14	0.05	0.05	0.6	0.54	29.81	0	0.01	0	4.65	-2.06	0.01	30.08	29.96	0.3	0.02	0.36
NACL	ALL	57	0.07	0.07	0.69	0.49	54.56	0	0.04	0	18.73	-5.17	0	60.41	51.82	0.55	0.07	0.48
NH4	WIN	12	1.28	1.06	0.61	-17.26	28.53	-0.22	0.36	0.16	-6.88	-15.27	-0.21	32.07	31.46	0.34	0.46	0.37
NH4	SPR	15	0.93	0.84	0.76	-10.32	34.41	-0.1	0.32	0.17	0.7	-8.48	-0.12	35.44	36.57	0.38	0.42	0.57
NH4	SUM	16	1.07	1.01	0.8	-5.85	28.67	-0.06	0.31	0.16	25.04	4.07	-0.06	51.67	37.16	0.3	0.4	0.64
NH4	FAL	15	0.62	0.78	0.75	26.09	40.08	0.16	0.25	0.09	48.46	27.59	0.26	56.27	36.41	0.4	0.34	0.57
NH4	ALL	58	0.96	0.92	0.75	-4.77	31.98	-0.05	0.31	0.16	18.2	2.91	-0.05	44.61	35.63	0.34	0.4	0.56
NO3	WIN	12	2.03	1.65	0.76	-18.87	33.61	-0.38	0.68	0.8	4.81	-8.55	-0.23	43.19	40.43	0.41	0.97	0.57
NO3	SPR	15	0.65	0.82	0.56	27.61	94.52	0.18	0.61	1.71	2.92	-38.33	0.28	74.03	72.97	0.95	1.32	0.32
NO3	SUM	16	0.37	0.14	0.44	-61.5	65	-0.23	0.24	0.03	-63.14	-100.76	-1.6	65.35	102.79	1.69	0.28	0.19
NO3	FAL	15	0.74	0.72	0.69	-2.87	45.68	-0.02	0.34	0.2	-7.11	-28.83	-0.03	52.94	62.47	0.47	0.45	0.48
NO3	ALL	58	0.88	0.78	0.63	-11.52	51.45	-0.1	0.45	0.71	-17.51	-46.93	-0.13	59.8	71.75	0.58	0.85	0.4
OC	WIN	13	1.92	4.29	0.75	122.79	122.79	2.36	2.36	2.42	140.74	74.61	1.23	140.74	74.61	1.23	2.83	0.56
OC	SPR	15	1.82	2.16	0.74	18.91	41.73	0.34	0.76	0.67	46.3	24.1	0.19	62.99	44.82	0.42	0.89	0.54
OC	SUM	14	2.23	3.42	0.32	53.72	60.1	1.2	1.34	0.83	65.97	44.32	0.54	69.01	47.72	0.6	1.5	0.1
OC	FAL	15	2.09	2.82	0.87	35.16	39.98	0.73	0.83	0.51	56.89	33.49	0.35	64.06	42.73	0.4	1.02	0.75
OC	ALL	57	2.01	3.13	0.62	55.44	63.91	1.12	1.29	1.62	75.45	43.06	0.55	82.48	51.78	0.64	1.69	0.38
PM-2.5	WIN	13	9.81	12.57	0.55	28.13	33.77	2.76	3.31	13.88	30.32	20.74	0.28	36.42	27.71	0.34	4.64	0.3
PM-2.5	SPR	15	11.01	8.8	0.64	-20.08	31.18	-2.21	3.43	13.61	-17.54	-24.32	-0.25	29.6	34.44	0.39	4.3	0.41
PM-2.5	SUM	16	16.74	11.69	0.73	-30.14	32.78	-5.04	5.49	16.61	-24.96	-31.74	-0.43	30.22	36.5	0.47	6.49	0.53
PM-2.5	FAL	14	9.16	10.14	0.86	10.7	25.52	0.98	2.34	6.03	16.83	10.3	0.11	32.39	28.39	0.26	2.64	0.74
PM-2.5	ALL	58	11.87	10.76	0.58	-9.34	31.23	-1.11	3.71	21.66	-0.56	-7.91	-0.1	31.97	32.04	0.34	4.78	0.33
SO4	WIN	12	2.39	1.74	0.68	-27.46	32.01	-0.66	0.77	0.3	-26.19	-33.85	-0.38	31.67	38.65	0.44	0.86	0.46
SO4	SPR	15	2.78	1.94	0.86	-30.36	31.21	-0.84	0.87	0.45	-27.81	-34.56	-0.44	29.24	35.92	0.45	1.08	0.74
SO4	SUM	16	3.92	2.98	0.83	-23.93	30.78	-0.94	1.21	1.5	-18.01	-25.76	-0.31	30.69	36.26	0.4	1.54	0.68
SO4	FAL	15	2	1.79	0.65	-10.23	40.1	-0.2	0.8	0.86	-0.54	-12.81	-0.11	44.95	46.9	0.45	0.95	0.42
SO4	ALL	58	2.81	2.15	0.81	-23.68	32.82	-0.67	0.92	0.9	-17.72	-26.36	-0.31	34.2	39.42	0.43	1.16	0.66

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 470654002																		
EC	WIN	15	0.57	0.78	0.8	35.44	44.68	0.2	0.26	0.07	74.32	44.31	0.35	78.11	48.42	0.45	0.33	0.64
EC	SPR	13	0.66	0.64	0.68	-3.47	33.89	-0.02	0.22	0.09	19	8.35	-0.04	39.71	33.75	0.35	0.31	0.46
EC	SUM	16	0.91	0.65	0.29	-28.01	36.78	-0.25	0.33	0.1	-20.71	-29.52	-0.39	35.33	41.57	0.51	0.41	0.08
EC	FAL	15	0.68	0.69	0.85	1.11	27.51	0.01	0.19	0.05	14.12	7.59	0.01	33.38	29.6	0.28	0.22	0.73
EC	ALL	59	0.71	0.69	0.64	-2.85	35.55	-0.02	0.25	0.11	21.05	7.03	-0.03	46.68	38.54	0.37	0.33	0.41
NACL	WIN	8	0.06	0.18	0.99	184.87	187.87	0.11	0.12	0.05	130.39	57.66	1.85	137.62	66.1	1.88	0.24	0.97
NACL	SPR	14	0.1	0.15	0.56	51.78	94.5	0.05	0.09	0.02	67.77	29.48	0.52	93.18	64.47	0.95	0.14	0.31
NACL	SUM	15	0.06	0.05	0.67	-17.12	37.23	-0.01	0.02	0	-8.98	-19.81	-0.21	37.06	42.8	0.45	0.03	0.44
NACL	FAL	15	0.04	0.04	0.44	-5.53	48.79	0	0.02	0	-5.48	-20.61	-0.06	42.47	44.79	0.52	0.03	0.2
NACL	ALL	52	0.06	0.09	0.68	43.27	85.22	0.03	0.05	0.01	34.13	5.15	0.43	69.2	52.79	0.85	0.12	0.46
NH4	WIN	8	0.76	0.83	0.28	9.51	36	0.07	0.27	0.14	36.49	12.15	0.1	56	36.03	0.36	0.38	0.08
NH4	SPR	15	0.95	0.84	0.28	-11.76	48.04	-0.11	0.46	0.51	4.62	-10.95	-0.13	45.68	49.7	0.54	0.72	0.08
NH4	SUM	15	1.09	0.88	0.38	-19.5	36.13	-0.21	0.39	0.22	0.06	-13.58	-0.24	43.38	41.33	0.45	0.52	0.14
NH4	FAL	14	0.52	0.65	0.71	24.12	49.15	0.13	0.26	0.11	66.61	38.4	0.24	73.59	47.62	0.49	0.35	0.51
NH4	ALL	52	0.85	0.8	0.44	-5.75	42.15	-0.05	0.36	0.28	24.9	5.13	-0.06	54.12	44.62	0.45	0.53	0.19
NO3	WIN	8	0.83	1.15	0.28	39.12	74.76	0.32	0.62	0.77	59.25	19.19	0.39	87.44	53.42	0.75	0.94	0.08
NO3	SPR	15	0.53	0.63	0.02	20.36	96.55	0.11	0.51	1.04	42.03	-42.17	0.2	121.03	77.65	0.97	1.03	0
NO3	SUM	15	0.29	0.1	0.54	-65.58	65.58	-0.19	0.19	0.01	-65.82	-101.54	-1.91	65.82	101.54	1.91	0.21	0.29
NO3	FAL	15	0.5	0.37	0.37	-26.4	68.91	-0.13	0.35	0.16	-19.71	-57.96	-0.36	72.35	91.77	0.94	0.42	0.14
NO3	ALL	53	0.5	0.49	0.36	-2.28	78.12	-0.01	0.39	0.49	-3.37	-54.18	-0.02	86.56	84.75	0.8	0.7	0.13
OC	WIN	15	1.53	2.63	0.68	71.87	71.87	1.1	1.1	1.11	124.27	63.87	0.72	124.27	63.87	0.72	1.52	0.46
OC	SPR	13	2.33	2.22	0.71	-4.66	41.87	-0.11	0.97	1.3	43.94	9.9	-0.05	77.41	50.59	0.44	1.15	0.5
OC	SUM	16	3.16	3.55	0.62	12.19	31.3	0.39	0.99	1.56	22.98	16.15	0.12	33.32	28.25	0.31	1.31	0.39
OC	FAL	15	2.05	2.17	0.84	5.55	35.06	0.11	0.72	0.83	93.25	18.21	0.06	116.53	45.72	0.35	0.92	0.7
OC	ALL	59	2.28	2.67	0.7	17.08	41.46	0.39	0.95	1.41	71.21	27.43	0.17	87.31	46.67	0.41	1.25	0.49
PM-2.5	WIN	8	10.7	10.41	0.71	-2.68	21.25	-0.29	2.27	7.32	-1.32	-4.06	-0.03	20.68	20.26	0.22	2.72	0.5
PM-2.5	SPR	15	12.03	8.91	0.54	-26	38.11	-3.13	4.59	22.62	-17.2	-27.76	-0.35	37.69	42.69	0.51	5.69	0.29
PM-2.5	SUM	15	17.25	10.62	0.66	-38.45	39.79	-6.63	6.86	19.66	-33.23	-42.99	-0.62	36.78	46.12	0.65	7.98	0.43
PM-2.5	FAL	15	7.71	7.32	0.81	-5.03	30.82	-0.39	2.38	11.16	17.34	4.72	-0.05	41.97	35.19	0.32	3.36	0.66
PM-2.5	ALL	53	12.08	9.17	0.67	-24.13	35.22	-2.92	4.26	23	-9.57	-19.3	-0.32	36.07	38.15	0.46	5.61	0.46
SO4	WIN	8	2.03	1.63	0.76	-19.59	24.17	-0.4	0.49	0.22	-14.31	-19.84	-0.24	25.46	29.22	0.3	0.62	0.58
SO4	SPR	15	2.96	2.29	0.59	-22.52	33.8	-0.67	1	2.23	-11.99	-19.46	-0.29	29.01	33.52	0.44	1.64	0.35
SO4	SUM	15	4.05	2.71	0.59	-33.08	38.8	-1.34	1.57	1.69	-26.52	-36.87	-0.49	36.74	46.01	0.58	1.87	0.34
SO4	FAL	15	1.68	1.47	0.78	-12.71	24.54	-0.21	0.41	0.64	-5.47	-9.04	-0.15	19.39	21.61	0.28	0.83	0.61
SO4	ALL	53	2.77	2.08	0.73	-24.89	33.22	-0.69	0.92	1.52	-14.61	-21.49	-0.33	27.94	33.04	0.44	1.41	0.54

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 470931020																		
EC	WIN	15	0.57	0.79	0.85	38.45	47.71	0.22	0.27	0.05	77.21	45.37	0.38	81.39	49.93	0.48	0.31	0.72
EC	SPR	12	0.66	0.77	0.9	16.89	33.04	0.11	0.22	0.05	49.95	31.61	0.17	58.03	40.32	0.33	0.24	0.81
EC	SUM	14	0.89	0.84	0.61	-6.18	21.17	-0.06	0.19	0.07	4.33	-4.94	-0.07	28.65	22.95	0.23	0.27	0.37
EC	FAL	13	0.61	0.79	0.84	29.72	42.1	0.18	0.26	0.06	74.7	42.32	0.3	81.16	49.81	0.42	0.3	0.71
EC	ALL	54	0.68	0.8	0.8	16.85	34.38	0.12	0.23	0.07	51.65	28.53	0.17	62.47	40.77	0.34	0.29	0.64
NACL	WIN	15	0.07	0.12	0.45	73.39	136.12	0.05	0.09	0.03	266.34	62.67	0.73	278.35	83.65	1.36	0.19	0.2
NACL	SPR	6	0.06	0.1	0.79	54.07	96.53	0.03	0.06	0	40.79	6.1	0.54	85.54	70.42	0.97	0.07	0.62
NACL	SUM	14	0.05	0.06	0.92	20.64	29.48	0.01	0.01	0	21.57	14.12	0.21	32.2	26.35	0.29	0.02	0.84
NACL	FAL	14	0.03	0.05	0.38	59.64	83.37	0.02	0.03	0	97.24	43.27	0.6	112.94	62.72	0.83	0.04	0.14
NACL	ALL	49	0.05	0.08	0.5	53.92	92.25	0.03	0.05	0.01	120.47	36.33	0.54	137.15	59.68	0.92	0.11	0.25
NH4	WIN	15	0.69	0.77	0.82	10.6	29.88	0.07	0.21	0.06	41.86	19.32	0.11	55.45	34.41	0.3	0.26	0.67
NH4	SPR	7	0.65	0.91	0.48	38.7	63.43	0.25	0.41	0.17	66.83	30.94	0.39	86.63	55.68	0.63	0.48	0.23
NH4	SUM	15	1.08	1.02	0.6	-4.77	22.87	-0.05	0.25	0.09	3.56	-1.12	-0.05	25.44	23.88	0.24	0.31	0.36
NH4	FAL	14	0.37	0.67	0.87	80.96	82.69	0.3	0.31	0.05	114.6	62.51	0.81	116.64	64.7	0.83	0.37	0.75
NH4	ALL	51	0.71	0.84	0.71	17.37	38.54	0.12	0.27	0.1	53.99	26.76	0.17	67.7	42.55	0.39	0.34	0.51
NO3	WIN	15	0.67	1.14	0.67	71.15	82.14	0.47	0.55	0.28	87.52	47.13	0.71	100.15	62.44	0.82	0.71	0.45
NO3	SPR	7	0.29	0.62	0.27	115.93	172.41	0.33	0.49	0.68	211.76	19.77	1.16	252.74	76.39	1.72	0.89	0.07
NO3	SUM	15	0.25	0.15	0.56	-40.64	54.96	-0.1	0.14	0.02	-32.21	-57.46	-0.68	59.66	70.99	0.93	0.17	0.31
NO3	FAL	14	0.34	0.62	0.66	83.3	93.04	0.28	0.31	0.21	69.79	25.7	0.83	91.72	57.43	0.93	0.54	0.43
NO3	ALL	51	0.4	0.63	0.63	57.93	88.54	0.23	0.36	0.29	64.49	6.73	0.58	106.87	65.49	0.89	0.59	0.4
OC	WIN	15	1.64	2.37	0.8	44.91	47.61	0.74	0.78	0.52	94.49	50.59	0.45	96.82	53.15	0.48	1.03	0.65
OC	SPR	12	2.1	2.05	0.97	-2.3	21.96	-0.05	0.46	0.35	62.75	22.48	-0.02	77.41	38.71	0.22	0.59	0.95
OC	SUM	14	2.41	3.38	0.77	40.49	46.09	0.97	1.11	0.64	54.03	36.9	0.4	57.91	40.97	0.46	1.26	0.59
OC	FAL	13	1.45	1.9	0.88	31.18	42.63	0.45	0.62	0.48	66.87	35.76	0.31	74.41	44.17	0.43	0.82	0.77
OC	ALL	54	1.89	2.45	0.82	29.29	39.87	0.55	0.75	0.64	70.3	37.23	0.29	77.02	44.62	0.4	0.97	0.67
PM-2.5	WIN	15	8.72	8.73	0.79	0.1	18.71	0.01	1.63	4.15	1.21	-1.66	0	20.09	19.31	0.19	2.04	0.63
PM-2.5	SPR	7	9.39	8.47	0.82	-9.74	31.28	-0.91	2.94	12.65	8.21	-0.93	-0.11	37.6	33.09	0.35	3.67	0.68
PM-2.5	SUM	15	17.15	11.31	0.72	-34.04	35.06	-5.84	6.01	13.8	-30.56	-38.38	-0.52	32.91	40.54	0.53	6.92	0.52
PM-2.5	FAL	14	8.18	7.81	0.88	-4.51	20.14	-0.37	1.65	5.98	8.17	1.15	-0.05	26.15	22.07	0.21	2.47	0.77
PM-2.5	ALL	51	11.14	9.2	0.8	-17.42	27.85	-1.94	3.1	15.07	-5.26	-11.59	-0.21	27.93	28.2	0.34	4.34	0.64
SO4	WIN	15	1.97	1.39	0.7	-29.5	36.41	-0.58	0.72	0.75	-17.59	-26.23	-0.42	32.87	38.55	0.52	1.04	0.49
SO4	SPR	7	2.3	2.47	0.6	7.5	34.15	0.17	0.79	1.14	16.74	5.69	0.07	39.03	31.38	0.34	1.08	0.35
SO4	SUM	15	4.29	3.2	0.92	-25.41	25.41	-1.09	1.09	0.29	-25.78	-30.42	-0.34	25.78	30.42	0.34	1.21	0.84
SO4	FAL	14	1.57	1.48	0.89	-5.27	20.4	-0.08	0.32	0.17	-3.41	-7.69	-0.06	22.12	24.17	0.22	0.42	0.79
SO4	ALL	51	2.59	2.1	0.85	-18.97	28.11	-0.49	0.73	0.72	-11.39	-17.99	-0.23	28.68	31.23	0.35	0.98	0.72

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 470990002																		
EC	WIN	13	0.3	0.41	0.67	35.73	49.71	0.11	0.15	0.04	41.56	27.51	0.36	49.96	37.45	0.5	0.22	0.45
EC	SPR	15	0.33	0.29	0.77	-12.99	29.74	-0.04	0.1	0.01	-4.05	-14.08	-0.15	37.84	37.49	0.34	0.12	0.59
EC	SUM	15	0.36	0.27	0.58	-23.48	31.71	-0.08	0.11	0.01	-15.43	-22.44	-0.31	29.9	34.74	0.41	0.14	0.34
EC	FAL	15	0.31	0.34	0.82	12.22	27.99	0.04	0.09	0.01	30.28	16.23	0.12	43.58	31.07	0.28	0.1	0.68
EC	ALL	58	0.33	0.33	0.61	0.34	34.04	0	0.11	0.02	12.11	0.92	0	39.99	35.11	0.34	0.15	0.38
NACL	WIN	15	0.06	0.11	0.75	75.65	101	0.05	0.06	0	119.44	50.16	0.76	137.47	74.31	1.01	0.08	0.56
NACL	SPR	15	0.11	0.16	0.9	47.89	84.3	0.05	0.09	0.02	46.69	5.09	0.48	93	69.01	0.84	0.15	0.8
NACL	SUM	12	0.06	0.06	0.64	12.89	57.64	0.01	0.03	0	21.08	-3.15	0.13	64.48	54.51	0.58	0.04	0.4
NACL	FAL	12	0.03	0.06	0.42	140.16	152.69	0.04	0.04	0	147.59	66.96	1.4	156.13	76.86	1.53	0.05	0.18
NACL	ALL	54	0.07	0.1	0.86	56.26	89.37	0.04	0.06	0.01	83.63	29.53	0.56	113.05	69.01	0.89	0.1	0.74
NH4	WIN	15	0.86	0.76	0.71	-11.06	29.48	-0.09	0.25	0.1	13.65	-4.7	-0.12	45.68	35.25	0.33	0.33	0.5
NH4	SPR	15	0.8	0.86	0.62	7.3	52.84	0.06	0.42	0.4	51.56	8.38	0.07	83.6	52.32	0.53	0.64	0.38
NH4	SUM	12	0.76	0.85	0.82	10.83	30.91	0.08	0.24	0.09	54.96	23.86	0.11	69.57	41.41	0.31	0.31	0.67
NH4	FAL	14	0.46	0.7	0.79	54.23	61.34	0.25	0.28	0.05	140.43	58.99	0.54	142.64	61.39	0.61	0.34	0.63
NH4	ALL	56	0.72	0.79	0.66	9.67	41.78	0.07	0.3	0.18	64.35	20.85	0.1	85.2	47.67	0.42	0.43	0.44
NO3	WIN	15	1.2	1.11	0.46	-6.92	57.24	-0.08	0.68	0.7	39.66	3.62	-0.07	80.8	60.72	0.61	0.84	0.21
NO3	SPR	15	0.41	1.07	0.44	161.1	196.39	0.66	0.8	3.65	115.04	-5.16	1.61	169.63	79.01	1.96	2.02	0.19
NO3	SUM	12	0.15	0.08	0.17	-46.62	55.17	-0.07	0.08	0.01	-41.97	-66.16	-0.87	51.49	74.44	1.03	0.1	0.03
NO3	FAL	15	0.25	0.55	0.4	125.74	167.72	0.31	0.41	0.19	271.15	37.19	1.26	310.22	101.18	1.68	0.54	0.16
NO3	ALL	57	0.52	0.74	0.34	42.18	99.83	0.22	0.52	1.29	103.23	-4.55	0.42	158.38	79.07	1	1.16	0.12
OC	WIN	13	1.1	1.93	0.64	74.96	81.17	0.83	0.9	1.69	86.58	48.7	0.75	91.18	54.11	0.81	1.54	0.41
OC	SPR	15	1.46	1.71	0.89	17.4	28.6	0.25	0.42	0.25	44.09	18.6	0.17	58.33	39.59	0.29	0.56	0.78
OC	SUM	15	2.36	3.61	0.55	53	62.31	1.25	1.47	1.57	67.8	44.98	0.53	70.98	48.6	0.62	1.77	0.3
OC	FAL	15	1.34	1.82	0.88	35.83	39.38	0.48	0.53	0.42	67.55	30.85	0.36	75.19	39.48	0.39	0.81	0.78
OC	ALL	58	1.58	2.28	0.72	44.2	52.21	0.7	0.83	1.11	65.81	35.34	0.44	73.32	45.14	0.52	1.26	0.53
PM-2.5	WIN	15	7.71	7.9	0.68	2.39	33.81	0.18	2.61	10.19	53.18	0.69	0.02	86.15	39.98	0.34	3.2	0.46
PM-2.5	SPR	15	10.95	7.64	0.52	-30.2	44.71	-3.31	4.89	19.21	-25.05	-40	-0.43	45.24	55.93	0.64	5.49	0.27
PM-2.5	SUM	12	15.91	10.09	0.64	-36.58	38.81	-5.82	6.17	17.47	-34.02	-44.05	-0.58	36.9	46.7	0.61	7.17	0.42
PM-2.5	FAL	15	8.13	7.08	0.62	-12.94	26.59	-1.05	2.16	11.73	2.29	-7.41	-0.15	31.42	32.53	0.31	3.58	0.39
PM-2.5	ALL	57	10.4	8.08	0.6	-22.34	36.95	-2.32	3.84	19.41	0.84	-21.57	-0.29	50.61	43.63	0.48	4.98	0.36
SO4	WIN	15	1.96	1.42	0.69	-27.88	32.96	-0.55	0.65	0.39	-21.11	-30.62	-0.39	32.38	40.33	0.46	0.83	0.47
SO4	SPR	15	2.68	1.98	0.79	-25.99	33.98	-0.7	0.91	1.13	-18.99	-25.73	-0.35	29.88	35.31	0.46	1.27	0.62
SO4	SUM	12	3.34	2.57	0.9	-22.88	28.89	-0.76	0.96	0.66	-21.56	-29.09	-0.3	30.34	36.98	0.37	1.12	0.8
SO4	FAL	15	1.77	1.59	0.86	-10.06	27.27	-0.18	0.48	0.37	13.48	2.39	-0.11	38.49	32.37	0.3	0.63	0.75
SO4	ALL	57	2.39	1.86	0.84	-22.38	30.95	-0.53	0.74	0.69	-11.54	-20.33	-0.29	32.9	36.21	0.4	0.99	0.71

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 471251009																		
EC	WIN	15	0.33	0.53	0.33	62.94	65.19	0.21	0.21	0.04	2639.09	47.83	0.63	2641.2	50.05	0.65	0.29	0.11
EC	SPR	15	0.33	0.37	0.64	10.2	34.28	0.03	0.11	0.02	37.23	17.86	0.1	53.33	36.34	0.34	0.13	0.41
EC	SUM	16	0.53	0.46	0.68	-11.47	23.54	-0.06	0.12	0.02	-7.79	-11.41	-0.13	23.02	24.37	0.27	0.15	0.46
EC	FAL	15	0.46	0.53	0.7	13.43	25.74	0.06	0.12	0.03	23.68	13.55	0.13	34.82	25.72	0.26	0.18	0.5
EC	ALL	61	0.41	0.47	0.53	14.14	34.37	0.06	0.14	0.04	661.89	16.49	0.14	677.19	33.96	0.34	0.2	0.28
NACL	WIN	14	0.05	0.08	0.13	68.58	93.33	0.03	0.04	0	121.42	55.07	0.69	130.83	67.66	0.93	0.05	0.02
NACL	SPR	15	0.08	0.12	0.75	48.83	90.1	0.04	0.07	0.01	82.47	30.05	0.49	110.46	69.47	0.9	0.12	0.57
NACL	SUM	15	0.06	0.05	0.57	-14.75	38.55	-0.01	0.02	0	-8.26	-19.75	-0.17	39.07	41.31	0.45	0.03	0.33
NACL	FAL	15	0.03	0.04	0.17	15.39	49.69	0.01	0.02	0	38.52	20.31	0.15	59.46	45.81	0.5	0.02	0.03
NACL	ALL	59	0.05	0.07	0.71	30.74	70.89	0.02	0.04	0	57.47	20.85	0.31	84.18	55.87	0.71	0.07	0.51
NH4	WIN	14	1.07	0.92	0.89	-14.18	24.27	-0.15	0.26	0.1	10.52	-0.93	-0.17	37.88	31.4	0.28	0.35	0.79
NH4	SPR	15	0.91	0.92	0.82	1.21	35.73	0.01	0.32	0.18	24.28	5.49	0.01	52.89	42.74	0.36	0.42	0.67
NH4	SUM	15	1.18	1.1	0.74	-6.58	34.35	-0.08	0.4	0.28	48.28	4.48	-0.07	78.11	41.1	0.37	0.53	0.55
NH4	FAL	15	0.69	0.77	0.86	11.01	30.59	0.08	0.21	0.08	47.12	21.13	0.11	60.84	36.17	0.31	0.29	0.74
NH4	ALL	59	0.96	0.93	0.8	-3.49	31.33	-0.03	0.3	0.17	32.92	7.69	-0.04	57.76	37.96	0.32	0.41	0.63
NO3	WIN	14	1.75	1.63	0.74	-6.41	39.27	-0.11	0.69	0.8	33.35	6.18	-0.07	67.01	49.94	0.42	0.9	0.54
NO3	SPR	15	0.66	1.06	0.32	59.99	131.21	0.4	0.87	2.79	60.63	-26.65	0.6	134.07	78.97	1.31	1.72	0.1
NO3	SUM	15	0.34	0.2	0.55	-40.62	61.84	-0.14	0.21	0.04	-47.02	-79.98	-0.68	63.92	93.72	1.04	0.23	0.3
NO3	FAL	15	0.71	0.8	0.88	12.52	63.47	0.09	0.45	0.38	-7.19	-33.53	0.13	58.64	70.86	0.63	0.62	0.77
NO3	ALL	59	0.85	0.91	0.59	7.36	64.95	0.06	0.55	1.05	9.55	-34.17	0.07	81.14	73.77	0.65	1.03	0.35
OC	WIN	14	1.23	2.2	0.64	79.45	81.65	0.97	1	0.7	95.81	55.74	0.79	97.61	57.67	0.82	1.29	0.41
OC	SPR	14	1.77	1.71	0.78	-3.23	36.25	-0.06	0.64	0.55	17.97	3.7	-0.03	49.21	42.63	0.37	0.74	0.61
OC	SUM	16	2.53	3.01	0.69	19.14	33.38	0.48	0.84	1.01	35.77	22.09	0.19	46.42	34.13	0.33	1.12	0.48
OC	FAL	15	2.18	1.86	0.64	-14.68	38.38	-0.32	0.84	0.99	16.38	-5.6	-0.17	57.1	46.88	0.45	1.05	0.41
OC	ALL	59	1.95	2.22	0.63	13.73	42.63	0.27	0.83	1.07	40.86	18.67	0.14	61.94	44.97	0.43	1.07	0.39
PM-2.5	WIN	14	8.9	8.85	0.14	-0.58	33.96	-0.05	3.02	22.62	343.08	5.19	-0.01	366.67	38.62	0.34	4.76	0.02
PM-2.5	SPR	15	10.07	7.53	0.5	-25.24	38.9	-2.54	3.92	17.96	-21.42	-32.65	-0.34	36.27	44.57	0.52	4.94	0.25
PM-2.5	SUM	16	16.46	10.48	0.7	-36.31	37.98	-5.97	6.25	19.3	-33.08	-43.39	-0.57	35.54	45.63	0.6	7.42	0.48
PM-2.5	FAL	15	10.23	7.72	0.7	-24.58	31.23	-2.51	3.2	11.12	-18.63	-25.84	-0.33	29.94	35.08	0.41	4.18	0.49
PM-2.5	ALL	60	11.54	8.67	0.58	-24.86	35.96	-2.87	4.15	22.18	61.22	-24.98	-0.33	111.59	41.09	0.48	5.51	0.34
SO4	WIN	14	2.04	1.35	0.91	-33.61	34.47	-0.69	0.7	0.24	-31.28	-40.26	-0.51	34.06	42.79	0.52	0.84	0.83
SO4	SPR	15	2.72	1.89	0.68	-30.43	34.98	-0.83	0.95	0.89	-25.26	-33.7	-0.44	32.48	40.28	0.5	1.25	0.47
SO4	SUM	15	4.15	3.06	0.76	-26.15	31.67	-1.08	1.31	2.13	-22.51	-30.55	-0.35	29.01	36.43	0.43	1.82	0.58
SO4	FAL	15	2.16	1.67	0.86	-22.67	31.02	-0.49	0.67	0.44	-13.53	-23.22	-0.29	35.61	39.64	0.4	0.82	0.75
SO4	ALL	59	2.78	2	0.83	-27.82	32.85	-0.77	0.91	0.98	-23.01	-31.79	-0.39	32.77	39.73	0.46	1.26	0.69

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 471570024																		
EC	WIN	15	0.76	0.93	0.77	22.77	33.38	0.17	0.25	0.09	20.77	12.02	0.23	35.6	30.13	0.33	0.34	0.59
EC	SPR	15	0.72	0.72	0.84	-0.25	18.99	0	0.14	0.03	1.03	-3.09	0	22.69	22.51	0.19	0.16	0.7
EC	SUM	16	1.19	1.11	0.65	-7.36	28.53	-0.09	0.34	0.24	131.66	2.45	-0.08	158.12	33.96	0.31	0.5	0.42
EC	FAL	15	1.05	1.11	0.74	5.7	28.21	0.06	0.3	0.15	13.17	5.62	0.06	33.44	30.39	0.28	0.39	0.55
EC	ALL	61	0.94	0.97	0.71	3.61	27.6	0.03	0.26	0.14	43.13	4.22	0.04	64.03	29.33	0.28	0.37	0.51
NACL	WIN	15	0.06	0.09	0.64	51.53	64.3	0.03	0.04	0	78.96	40.31	0.52	87.95	51.62	0.64	0.05	0.41
NACL	SPR	14	0.12	0.2	0.85	64.39	100.26	0.08	0.12	0.07	68.43	19.2	0.64	97.25	58.69	1	0.28	0.73
NACL	SUM	16	0.08	0.06	0.47	-21.2	42.75	-0.02	0.03	0	-12.48	-23.84	-0.27	36.46	42.86	0.54	0.05	0.22
NACL	FAL	14	0.03	0.06	0.53	72.81	76.2	0.02	0.03	0	75.2	48.19	0.73	77.33	50.5	0.76	0.04	0.28
NACL	ALL	59	0.07	0.1	0.81	37.98	73.57	0.03	0.05	0.02	50.77	19.78	0.38	73.67	50.65	0.74	0.14	0.65
NH4	WIN	15	1.12	1.01	0.69	-10.06	34.98	-0.11	0.39	0.26	8.69	-0.93	-0.11	36.47	33.56	0.39	0.52	0.47
NH4	SPR	15	0.9	0.88	0.84	-2.26	31.08	-0.02	0.28	0.13	13.23	-8.92	-0.02	49.64	37.23	0.32	0.37	0.71
NH4	SUM	16	0.73	0.77	0.62	5.6	38.62	0.04	0.28	0.11	35.62	7.94	0.06	63.31	40.32	0.39	0.34	0.39
NH4	FAL	14	0.81	0.93	0.95	15.33	26.22	0.12	0.21	0.04	34.68	22.51	0.15	42.05	30.99	0.26	0.24	0.9
NH4	ALL	60	0.89	0.89	0.78	0.72	32.93	0.01	0.29	0.14	23.07	4.91	0.01	48.22	35.68	0.33	0.38	0.61
NO3	WIN	15	2.19	2.04	0.61	-6.7	44	-0.15	0.96	1.78	20.47	0.78	-0.07	54.56	45.98	0.47	1.34	0.37
NO3	SPR	15	0.83	0.95	0.83	13.81	69.45	0.12	0.58	0.82	-17.47	-54.33	0.14	70.46	85.54	0.69	0.91	0.7
NO3	SUM	16	0.37	0.17	0.41	-53.6	75.35	-0.2	0.28	0.06	-58.1	-98.94	-1.15	73.64	108.52	1.62	0.31	0.17
NO3	FAL	14	0.9	1.05	0.82	16.96	58.73	0.15	0.53	0.5	-2.71	-28.55	0.17	62.65	65.39	0.59	0.72	0.68
NO3	ALL	60	1.06	1.04	0.73	-2.33	54.79	-0.02	0.58	0.8	-15.38	-46.43	-0.02	65.51	77.07	0.56	0.9	0.54
OC	WIN	15	1.66	2.54	0.81	52.88	54.39	0.88	0.9	0.72	53.04	36.57	0.53	56.55	40.36	0.54	1.22	0.65
OC	SPR	15	1.61	1.62	0.55	1.05	35.21	0.02	0.57	0.43	13.38	3.28	0.01	41.46	38.03	0.35	0.66	0.3
OC	SUM	16	2.38	4.3	0.24	80.43	80.43	1.92	1.92	4.05	532.3	51.41	0.8	532.3	51.41	0.8	2.78	0.06
OC	FAL	15	1.98	2.62	0.91	31.92	37.46	0.63	0.74	0.34	32.32	23.72	0.32	40.95	34.03	0.37	0.86	0.83
OC	ALL	61	1.92	2.79	0.58	45.85	54.62	0.88	1.05	1.91	163.9	29.12	0.46	173.79	41.13	0.55	1.64	0.34
PM-2.5	WIN	15	10.03	10.38	0.7	3.49	21.62	0.35	2.17	9.33	5.66	1.51	0.03	22.25	20.49	0.22	3.07	0.49
PM-2.5	SPR	15	10.22	8.37	0.67	-18.09	28.68	-1.85	2.93	8.55	-20.18	-27.87	-0.22	29.58	36.06	0.35	3.46	0.46
PM-2.5	SUM	16	14.54	12.33	0.6	-15.21	28.98	-2.21	4.21	17.42	-10.36	-18.62	-0.18	33.07	35.99	0.34	4.72	0.36
PM-2.5	FAL	14	10.46	10.43	0.86	-0.37	18.48	-0.04	1.93	6.96	0.44	-2.01	0	18.36	19	0.19	2.64	0.74
PM-2.5	ALL	60	11.38	10.41	0.72	-8.56	25.04	-0.97	2.85	11.98	-6.29	-12.02	-0.09	26.06	28.17	0.27	3.6	0.51
SO4	WIN	15	1.89	1.24	0.79	-34.48	35.97	-0.65	0.68	0.45	-28.77	-39.7	-0.53	33.92	44.02	0.55	0.93	0.62
SO4	SPR	15	2.49	2.03	0.78	-18.5	30.58	-0.46	0.76	0.57	-12.04	-21.97	-0.23	37.38	38.33	0.38	0.88	0.61
SO4	SUM	16	2.69	2.23	0.54	-16.83	35.75	-0.45	0.96	1.06	-9.18	-22.96	-0.2	41.8	45.12	0.43	1.12	0.29
SO4	FAL	14	2.2	1.84	0.9	-16.32	25.17	-0.36	0.55	0.44	-6.8	-13.34	-0.2	28.83	31	0.3	0.75	0.82
SO4	ALL	60	2.33	1.84	0.77	-20.75	32.07	-0.48	0.75	0.65	-14.24	-24.65	-0.26	35.7	39.85	0.4	0.94	0.59

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 481130069																		
EC	WIN	23	0.77	1.33	0.86	72.79	72.79	0.56	0.56	0.12	86.25	55.64	0.73	86.25	55.64	0.73	0.66	0.73
EC	SPR	24	0.6	0.89	0.62	47.04	60.62	0.28	0.37	0.14	63.8	37.27	0.47	74.34	49.9	0.61	0.47	0.39
EC	SUM	24	0.51	0.73	0.69	43.83	45.86	0.22	0.23	0.04	60.09	39.61	0.44	61.3	40.91	0.46	0.3	0.48
EC	FAL	24	0.81	1.18	0.79	44.78	54.68	0.36	0.44	0.18	71.18	43.78	0.45	76.81	50.07	0.55	0.56	0.63
EC	ALL	95	0.67	1.03	0.79	52.85	59.34	0.36	0.4	0.14	70.16	43.95	0.53	74.55	49.06	0.59	0.51	0.62
NACL	WIN	22	0.1	0.13	0.52	36.52	68.77	0.04	0.07	0.02	98.46	31.61	0.37	116.45	52.9	0.69	0.13	0.27
NACL	SPR	24	0.26	0.14	0.68	-45.56	55.07	-0.12	0.14	0.03	-4.99	-29.41	-0.84	61.01	66.49	1.01	0.21	0.47
NACL	SUM	26	0.24	0.08	0.06	-67.97	74.75	-0.16	0.18	0.04	-48.66	-89.11	-2.12	69.52	102.22	2.33	0.26	0
NACL	FAL	24	0.11	0.1	0.3	-9.52	78.86	-0.01	0.09	0.02	-2.91	-32.67	-0.11	68.76	72.08	0.87	0.14	0.09
NACL	ALL	96	0.18	0.11	0.34	-37.61	67.64	-0.07	0.12	0.03	7.41	-32.41	-0.6	77.96	74.45	1.08	0.2	0.12
NH4	WIN	22	1.1	1.03	0.68	-5.58	29.34	-0.06	0.32	0.2	8.48	-4.31	-0.06	37.09	32.32	0.31	0.45	0.46
NH4	SPR	24	1.02	0.81	0.83	-20.84	28.75	-0.21	0.29	0.13	-9.96	-18.51	-0.26	31.88	34.08	0.36	0.42	0.68
NH4	SUM	26	0.68	0.42	0.88	-38.66	38.9	-0.26	0.27	0.03	-38.56	-52.29	-0.63	40.03	53.63	0.63	0.32	0.78
NH4	FAL	24	0.62	0.81	0.56	31.43	62.55	0.19	0.39	0.57	38.86	15.53	0.31	60.72	42.47	0.63	0.78	0.31
NH4	ALL	96	0.85	0.76	0.63	-10.7	37.3	-0.09	0.32	0.26	-1.28	-15.89	-0.12	42.49	41.07	0.42	0.52	0.4
NO3	WIN	22	2	1.68	0.54	-16.13	41.31	-0.32	0.83	1.16	-2.24	-20.29	-0.19	49.45	46.52	0.49	1.12	0.29
NO3	SPR	24	0.91	0.35	0.89	-61.12	61.12	-0.56	0.56	0.21	-64.56	-101.57	-1.57	64.56	101.57	1.57	0.72	0.79
NO3	SUM	26	0.43	0.1	0.1	-76.19	76.19	-0.33	0.33	0.04	-71.26	-115.57	-3.2	71.26	115.57	3.2	0.38	0.01
NO3	FAL	24	0.8	0.88	0.76	9.86	79.46	0.08	0.63	1.75	-26.12	-61.64	0.1	69.22	83.83	0.79	1.32	0.57
NO3	ALL	96	1	0.72	0.68	-28.2	57.48	-0.28	0.58	0.82	-42.48	-76.76	-0.39	64.08	88.31	0.8	0.95	0.46
OC	WIN	23	1.86	3.79	0.74	104.26	105.77	1.94	1.97	2.22	112.99	64.52	1.04	114.06	65.63	1.06	2.44	0.54
OC	SPR	24	1.95	2.12	0.12	8.55	52.22	0.17	1.02	1.8	35.17	11.89	0.09	61.53	45.79	0.52	1.35	0.01
OC	SUM	24	1.62	2.27	0.78	40.61	45.81	0.66	0.74	0.7	48.76	31.71	0.41	52.8	36.38	0.46	1.06	0.61
OC	FAL	24	1.65	2.83	0.65	71.02	78.39	1.17	1.3	1.55	84.01	49.83	0.71	88.38	55.74	0.78	1.71	0.43
OC	ALL	95	1.77	2.74	0.53	55.02	70.53	0.97	1.25	1.98	69.78	39.22	0.55	78.83	50.73	0.71	1.71	0.28
PM-2.5	WIN	23	10.13	14.44	0.61	42.45	46.33	4.3	4.7	22.03	45.76	30.96	0.42	50.84	36.68	0.46	6.37	0.38
PM-2.5	SPR	24	11.49	10.08	0.02	-12.25	49.65	-1.41	5.7	46.63	7.35	-9.37	-0.14	52.05	50.37	0.57	6.97	0
PM-2.5	SUM	26	11.85	8.8	0.7	-25.8	28.7	-3.06	3.4	9.71	-24.64	-32.76	-0.35	28.57	36.41	0.39	4.37	0.49
PM-2.5	FAL	24	9.33	12.23	0.58	30.99	45.83	2.89	4.28	46.07	30.89	17.4	0.31	43.97	33.1	0.46	7.38	0.34
PM-2.5	ALL	97	10.73	11.3	0.31	5.29	41.88	0.57	4.49	39.9	13.71	0.55	0.05	43.47	39.11	0.42	6.34	0.1
SO4	WIN	22	2.01	1.78	0.9	-11.52	25.66	-0.23	0.52	0.31	-8.59	-15.96	-0.13	30.24	33.94	0.29	0.61	0.8
SO4	SPR	24	3	2.33	0.73	-22.19	31.49	-0.66	0.94	1.29	-15.75	-22.61	-0.29	26.92	32.53	0.4	1.32	0.54
SO4	SUM	26	2.59	1.29	0.83	-50.13	50.13	-1.3	1.3	0.23	-52.95	-76.22	-1.01	52.95	76.22	1.01	1.38	0.69
SO4	FAL	24	1.85	1.81	0.61	-2.4	37.07	-0.04	0.69	1.16	5.48	-2.8	-0.02	35.51	34.36	0.38	1.08	0.37
SO4	ALL	96	2.37	1.79	0.7	-24.5	36.95	-0.58	0.88	0.99	-18.88	-30.65	-0.32	36.88	45.14	0.49	1.15	0.49

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 481410044																		
EC	WIN	25	1.07	0.78	0.71	-26.93	42.34	-0.29	0.45	0.31	2.32	-10.76	-0.37	43.67	44.39	0.58	0.63	0.51
EC	SPR	30	0.45	0.53	0.74	17.14	43.32	0.08	0.2	0.05	46.44	29.33	0.17	57.9	44.12	0.43	0.24	0.55
EC	SUM	29	0.52	0.49	0.44	-6.37	35.4	-0.03	0.18	0.07	7.98	-0.07	-0.07	34.25	33.38	0.38	0.26	0.19
EC	FAL	30	0.79	0.74	0.7	-6.36	31.53	-0.05	0.25	0.13	18.12	6.61	-0.07	39.06	33.46	0.34	0.36	0.5
EC	ALL	114	0.69	0.63	0.73	-9.26	37.95	-0.06	0.26	0.15	19.53	7.08	-0.1	43.8	38.64	0.42	0.39	0.53
NACL	WIN	25	0.17	0.04	0	-78.73	79.38	-0.14	0.14	0.07	-44.88	-71.04	-3.7	46.72	72.77	3.73	0.31	0
NACL	SPR	31	0.18	0.09	0.62	-51.17	54.38	-0.09	0.1	0.01	-42.55	-63.39	-1.05	48.27	68.05	1.11	0.14	0.39
NACL	SUM	27	0.11	0.03	0.65	-72.7	72.7	-0.08	0.08	0	-70.37	-113.3	-2.66	70.37	113.3	2.66	0.1	0.42
NACL	FAL	30	0.09	0.04	0	-62.03	72.18	-0.06	0.07	0.02	-42.44	-72.87	-1.63	60.59	85.66	1.9	0.14	0
NACL	ALL	113	0.14	0.05	0.29	-65.01	68.11	-0.09	0.09	0.03	-49.68	-79.53	-1.86	56.48	84.58	1.95	0.18	0.08
NH4	WIN	25	0.46	0.36	0.57	-20.85	39.89	-0.1	0.18	0.09	-0.38	-9.74	-0.26	32.46	35.68	0.5	0.31	0.32
NH4	SPR	31	0.29	0.18	0.43	-37.82	45.29	-0.11	0.13	0.02	-23.54	-38.86	-0.61	43.69	53.47	0.73	0.18	0.18
NH4	SUM	28	0.48	0.24	0.79	-49.19	49.19	-0.23	0.23	0.02	-48.16	-66.73	-0.97	48.16	66.73	0.97	0.27	0.63
NH4	FAL	29	0.38	0.28	0.72	-24.72	31.2	-0.09	0.12	0.02	-22.72	-31.52	-0.33	29.51	37.42	0.41	0.16	0.52
NH4	ALL	113	0.4	0.26	0.62	-33.68	41.63	-0.13	0.16	0.04	-24.3	-37.44	-0.51	38.68	48.7	0.63	0.23	0.38
NO3	WIN	25	1.2	0.39	0.66	-67.58	67.58	-0.81	0.81	0.7	-64.51	-100.03	-2.08	64.51	100.03	2.08	1.16	0.44
NO3	SPR	31	0.32	0.07	0.49	-79.19	79.19	-0.25	0.25	0.01	-76.51	-127.57	-3.81	76.51	127.57	3.81	0.28	0.24
NO3	SUM	28	0.27	0.05	0.19	-83.02	83.02	-0.22	0.22	0.01	-79.32	-135.48	-4.89	79.32	135.48	4.89	0.25	0.04
NO3	FAL	30	0.37	0.09	0.7	-75.26	75.58	-0.28	0.28	0.09	-65.84	-105.75	-3.04	68.11	107.69	3.05	0.4	0.49
NO3	ALL	114	0.51	0.14	0.78	-73	73.06	-0.37	0.37	0.24	-71.76	-117.73	-2.7	72.36	118.24	2.71	0.61	0.62
OC	WIN	25	2.01	1.46	0.53	-27.32	45.56	-0.55	0.92	1.76	3.47	-9.9	-0.38	41.54	42.99	0.63	1.43	0.28
OC	SPR	30	1.11	1.01	0.59	-8.99	41.83	-0.1	0.47	0.34	19.23	0.09	-0.1	54.89	46.84	0.46	0.59	0.34
OC	SUM	29	1.44	1.3	0.08	-9.58	68.34	-0.14	0.99	2.41	37.66	5.69	-0.11	76.02	60.47	0.76	1.56	0.01
OC	FAL	30	1.4	1.51	0.42	7.46	44.73	0.1	0.63	0.74	28.99	14.08	0.07	48.82	39.85	0.45	0.87	0.17
OC	ALL	114	1.47	1.32	0.35	-10.52	50.29	-0.15	0.74	1.33	23.03	3	-0.12	55.74	47.62	0.56	1.17	0.12
PM-2.5	WIN	25	9.62	6.39	0.42	-33.54	40.34	-3.22	3.88	18.46	-18.16	-31.5	-0.5	38.04	45.71	0.61	5.37	0.18
PM-2.5	SPR	31	12.35	4.63	0.11	-62.54	62.54	-7.72	7.72	53.47	-53.88	-80.07	-1.67	53.88	80.07	1.67	10.64	0.01
PM-2.5	SUM	26	10.46	4.75	0.02	-54.54	55.49	-5.7	5.8	17.26	-49.78	-74.34	-1.2	51.2	75.64	1.22	7.06	0
PM-2.5	FAL	30	10.63	5.96	0.42	-43.92	44.33	-4.67	4.71	21.82	-37.09	-51.93	-0.78	38.01	52.82	0.79	6.6	0.17
PM-2.5	ALL	112	10.84	5.41	0.12	-50.11	51.78	-5.43	5.61	31.48	-40.46	-60.36	-1	45.47	64.07	1.04	7.81	0.01
SO4	WIN	25	0.68	0.81	0.8	20.53	38.32	0.14	0.26	0.08	34.32	24.67	0.21	43.61	35.9	0.38	0.31	0.64
SO4	SPR	31	0.92	0.67	0.66	-27.03	33.46	-0.25	0.31	0.12	-18.16	-25	-0.37	29.18	34.61	0.46	0.43	0.43
SO4	SUM	28	1.35	0.73	0.77	-45.99	45.99	-0.62	0.62	0.1	-45.87	-62.25	-0.85	45.87	62.25	0.85	0.69	0.6
SO4	FAL	30	1.05	0.82	0.44	-21.52	33.01	-0.23	0.35	0.37	19	-19.12	-0.27	60.81	37.67	0.42	0.65	0.19
SO4	ALL	114	1.01	0.76	0.53	-24.76	38.18	-0.25	0.38	0.24	-3.68	-21.71	-0.33	44.77	42.49	0.51	0.55	0.28

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 482011039																		
EC	WIN	28	0.52	1.06	0.5	102.93	102.93	0.54	0.54	0.22	156.9	66.29	1.03	156.9	66.29	1.03	0.72	0.25
EC	SPR	31	0.43	0.6	0.85	39.3	42.86	0.17	0.18	0.05	48.99	31.95	0.39	51.77	34.95	0.43	0.29	0.72
EC	SUM	31	0.27	0.54	0.6	101.53	109.81	0.27	0.3	0.04	159.33	75.58	1.02	162.91	80.03	1.1	0.33	0.36
EC	FAL	28	0.53	0.88	0.85	67.32	69.44	0.36	0.37	0.07	81.55	53.28	0.67	82.65	54.47	0.69	0.45	0.72
EC	ALL	118	0.43	0.76	0.73	75.79	78.68	0.33	0.34	0.11	111.31	56.62	0.76	113.24	58.86	0.79	0.47	0.53
NACL	WIN	29	0.23	0.45	0.45	97.33	137.06	0.22	0.31	0.45	101.29	18.5	0.97	140.29	74.69	1.37	0.71	0.2
NACL	SPR	31	0.74	0.46	0.43	-38.44	67.11	-0.28	0.5	0.41	20.22	-33.19	-0.62	95.09	75.03	1.09	0.7	0.18
NACL	SUM	29	0.47	0.17	0.2	-64.15	75.33	-0.3	0.36	0.15	-32.18	-77.33	-1.79	78.85	102.14	2.1	0.5	0.04
NACL	FAL	30	0.25	0.39	0.64	57.38	99.53	0.14	0.25	0.3	76.66	23.37	0.57	107	64.01	1	0.56	0.42
NACL	ALL	119	0.43	0.37	0.34	-13.64	83.18	-0.06	0.35	0.39	41.43	-17.09	-0.16	105.15	78.78	0.96	0.62	0.11
NH4	WIN	29	0.84	0.92	0.22	9.2	63	0.08	0.53	0.56	86.08	13.83	0.09	121.72	60.83	0.63	0.75	0.05
NH4	SPR	31	1.02	0.66	0.76	-35.15	39.88	-0.36	0.41	0.13	-30.82	-47.29	-0.54	41.4	55.14	0.62	0.51	0.58
NH4	SUM	29	0.45	0.29	0.9	-36.01	43.52	-0.16	0.2	0.06	-3.73	-37.88	-0.56	67.13	69.51	0.68	0.29	0.81
NH4	FAL	30	0.52	0.65	0.72	24.77	46.45	0.13	0.24	0.07	42.69	16	0.25	66.31	50.82	0.46	0.29	0.52
NH4	ALL	119	0.71	0.63	0.56	-11.54	48.29	-0.08	0.34	0.24	22.8	-14.15	-0.13	73.52	58.94	0.55	0.5	0.32
NO3	WIN	29	1.25	1.67	0.23	33.98	88.18	0.42	1.1	2.43	78.24	10.79	0.34	117.72	66.21	0.88	1.62	0.05
NO3	SPR	31	0.75	0.44	0.48	-41.56	67.72	-0.31	0.51	0.44	-46.08	-76.93	-0.71	60.11	86.68	1.16	0.73	0.23
NO3	SUM	29	0.38	0.18	0.3	-52.67	69.17	-0.2	0.27	0.04	-53.96	-88.85	-1.11	68.16	97.81	1.46	0.29	0.09
NO3	FAL	30	0.45	0.56	0.29	23.74	68.44	0.11	0.31	0.26	33.65	-8.68	0.24	82.62	59.77	0.68	0.52	0.08
NO3	ALL	119	0.71	0.71	0.47	-0.09	76.81	0	0.54	0.87	2.39	-41.25	0	81.78	77.62	0.77	0.93	0.22
OC	WIN	28	1.58	3.13	0.54	98.33	100.13	1.55	1.58	5.18	108.3	54.39	0.98	109.44	55.57	1	2.76	0.29
OC	SPR	31	1.89	1.81	0.74	-4.26	50.79	-0.08	0.96	1.76	12.55	-7.05	-0.04	57.11	51.63	0.53	1.33	0.55
OC	SUM	31	0.86	1.42	0.79	65.16	84.61	0.56	0.73	0.51	203.28	70.76	0.65	209.81	79.89	0.85	0.9	0.63
OC	FAL	28	1.57	2.56	0.72	62.86	68.2	0.99	1.07	1.67	72.69	44.32	0.63	76.63	48.57	0.68	1.63	0.52
OC	ALL	118	1.47	2.2	0.62	49.55	72.96	0.73	1.07	2.58	99.65	40.16	0.5	114.27	59.26	0.73	1.76	0.39
PM-2.5	WIN	28	10.4	13.96	0.6	34.24	45.73	3.56	4.76	33.34	40.05	24.03	0.34	50.16	35.83	0.46	6.78	0.36
PM-2.5	SPR	31	12.72	9.8	0.51	-22.95	37.04	-2.92	4.71	21.36	-18.1	-28.03	-0.3	36.15	43.27	0.48	5.47	0.26
PM-2.5	SUM	29	10.19	7.09	0.65	-30.36	34.94	-3.09	3.56	13.45	-24.93	-36.7	-0.44	33.94	44.47	0.5	4.8	0.42
PM-2.5	FAL	30	9.67	11.77	0.54	21.72	31.84	2.1	3.08	16.96	24.19	15.8	0.22	33.69	26.39	0.32	4.62	0.3
PM-2.5	ALL	118	10.77	10.62	0.46	-1.38	37.36	-0.15	4.02	29.84	4.77	-6.67	-0.01	38.31	37.51	0.38	5.46	0.21
SO4	WIN	29	2.07	2.15	0.46	3.77	42.08	0.08	0.87	1.66	13.16	-2.6	0.04	45.69	38.34	0.42	1.29	0.21
SO4	SPR	31	3.42	2.67	0.58	-21.92	32.18	-0.75	1.1	1.3	-17.08	-25.11	-0.28	31.2	36.89	0.41	1.36	0.33
SO4	SUM	29	2.55	1.14	0.83	-55.39	55.39	-1.41	1.41	0.63	-55.84	-83.45	-1.24	55.84	83.45	1.24	1.62	0.69
SO4	FAL	30	2.33	2.05	0.76	-11.71	26.05	-0.27	0.61	0.54	-1.48	-10.66	-0.13	31.6	31.25	0.3	0.79	0.57
SO4	ALL	119	2.6	2.01	0.59	-22.63	38.25	-0.59	1	1.34	-15.22	-30.2	-0.29	40.84	47.17	0.49	1.3	0.35

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 482030002																		
EC	WIN	15	0.59	0.45	0.72	-23.25	36.49	-0.14	0.22	0.08	-19.43	-28.61	-0.3	30.85	38.09	0.48	0.31	0.52
EC	SPR	15	1.01	0.38	0.32	-62.17	69.6	-0.63	0.7	3.49	-31.86	-51.62	-1.64	44.87	61.48	1.84	1.97	0.1
EC	SUM	16	0.45	0.27	0.81	-39.32	41.69	-0.18	0.19	0.01	-32.39	-47.31	-0.65	45.34	56.09	0.69	0.21	0.66
EC	FAL	14	0.59	0.42	0.5	-29.25	32.25	-0.17	0.19	0.05	-26.07	-33.98	-0.41	29.28	36.98	0.46	0.28	0.25
EC	ALL	60	0.66	0.38	0.32	-42.37	49.25	-0.28	0.32	0.95	-27.54	-40.6	-0.74	37.85	48.48	0.85	1.01	0.1
NACL	WIN	15	0.08	0.08	0.87	0.42	45.16	0	0.03	0	102.65	10.56	0	137.03	56.13	0.45	0.05	0.76
NACL	SPR	15	0.21	0.24	0.56	15.24	85.57	0.03	0.18	0.1	16.16	-13	0.15	71.15	60.38	0.86	0.32	0.32
NACL	SUM	16	0.21	0.07	0.08	-67.1	71.62	-0.14	0.15	0.05	-46.89	-78.72	-2.04	61.4	89.74	2.18	0.26	0.01
NACL	FAL	14	0.04	0.09	0.62	97.45	108.77	0.04	0.05	0.01	88.21	36.73	0.97	98.95	49.08	1.09	0.1	0.38
NACL	ALL	60	0.14	0.12	0.4	-13.65	76.09	-0.02	0.1	0.05	37.78	-13.03	-0.16	91.51	64.51	0.88	0.21	0.16
NH4	WIN	15	0.5	0.65	0.46	31.72	55.48	0.16	0.28	0.14	101	33.9	0.32	119.4	55.9	0.55	0.4	0.21
NH4	SPR	15	0.65	0.71	0.91	9.45	20.82	0.06	0.14	0.03	33.39	17.99	0.09	42.93	29.5	0.21	0.17	0.82
NH4	SUM	16	0.5	0.45	0.83	-10.88	27.74	-0.05	0.14	0.03	-1.8	-10.19	-0.12	32.79	34.15	0.31	0.19	0.69
NH4	FAL	14	0.35	0.57	0.78	65.72	65.72	0.23	0.23	0.03	96.43	52.02	0.66	96.43	52.02	0.66	0.29	0.6
NH4	ALL	60	0.5	0.59	0.71	18.65	38.5	0.09	0.19	0.07	55.62	22.4	0.19	71.83	42.6	0.39	0.28	0.5
NO3	WIN	15	0.66	0.64	0.05	-2.25	69.93	-0.01	0.46	0.36	22.56	-19.73	-0.02	86.47	71.83	0.72	0.6	0
NO3	SPR	15	0.44	0.34	0.51	-22.23	89.4	-0.1	0.4	0.33	-39.17	-95.16	-0.29	85.02	118.88	1.15	0.58	0.26
NO3	SUM	16	0.31	0.03	0.29	-89.69	89.69	-0.28	0.28	0.01	-87.92	-158.58	-8.7	87.92	158.58	8.7	0.3	0.09
NO3	FAL	14	0.25	0.18	0.71	-29.19	60.15	-0.07	0.15	0.02	-35.16	-70.12	-0.41	66.99	93.13	0.85	0.16	0.5
NO3	ALL	60	0.42	0.3	0.43	-28.65	77.64	-0.12	0.32	0.19	-35.8	-87.37	-0.4	81.95	111.7	1.09	0.45	0.19
OC	WIN	15	1.92	2.09	0.51	8.65	49.43	0.17	0.95	2.38	23.39	4.18	0.09	51.68	44.05	0.49	1.55	0.26
OC	SPR	15	6.24	2.19	0.23	-64.85	79.55	-4.05	4.96	206.97	-15.12	-36.32	-1.85	49.74	57.28	2.26	14.94	0.05
OC	SUM	16	2.2	4.41	0.79	100.91	103.53	2.22	2.27	9.33	73.17	37.67	1.01	80.98	47.19	1.04	3.77	0.62
OC	FAL	14	2.31	2.94	0.44	27.28	53.67	0.63	1.24	2.88	29.37	15.82	0.27	46.26	37.44	0.54	1.81	0.19
OC	ALL	60	3.16	2.93	0.12	-7.35	75.01	-0.23	2.37	60.94	28.43	5.7	-0.08	57.74	46.65	0.81	7.81	0.01
PM-2.5	WIN	15	8.25	7.39	0.69	-10.42	31.87	-0.86	2.63	12.04	-9.02	-19.16	-0.12	34.47	36.06	0.36	3.57	0.48
PM-2.5	SPR	15	20.24	7.65	0.21	-62.23	65.45	-12.59	13.25	1002.55	-39.78	-58.56	-1.65	45	62.93	1.73	34.08	0.04
PM-2.5	SUM	16	13.58	9.16	0.79	-32.58	39.74	-4.42	5.4	19.27	-38.68	-58.55	-0.48	44.38	63.74	0.59	6.23	0.62
PM-2.5	FAL	14	8.44	8.29	0.57	-1.68	25.93	-0.14	2.19	10.07	-0.17	-5.38	-0.02	23.97	24.66	0.26	3.18	0.32
PM-2.5	ALL	60	12.71	8.13	0.21	-36	46.56	-4.58	5.92	285.26	-22.55	-36.3	-0.56	37.29	47.5	0.73	17.5	0.04
SO4	WIN	15	1.59	1.64	0.64	3.06	47.46	0.05	0.75	1.21	2.65	-11.4	0.03	46.68	44.49	0.47	1.1	0.41
SO4	SPR	15	2.66	2.22	0.83	-16.3	22.86	-0.43	0.61	0.58	-13.24	-18.17	-0.19	22.11	25.92	0.27	0.88	0.69
SO4	SUM	16	2.85	1.41	0.67	-50.55	50.55	-1.44	1.44	0.7	-52.06	-75.19	-1.02	52.06	75.19	1.02	1.67	0.45
SO4	FAL	14	1.62	1.79	0.83	10.66	24.14	0.17	0.39	0.25	13.83	8.94	0.11	26.95	23.71	0.24	0.53	0.7
SO4	ALL	60	2.2	1.76	0.61	-20.01	37.1	-0.44	0.82	1.11	-13.3	-25.36	-0.25	37.37	43.19	0.46	1.14	0.38

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 500070012																		
EC	WIN	22	0.4	0.7	0.91	73.44	73.44	0.3	0.3	0.02	108.87	62.89	0.73	108.87	62.89	0.73	0.32	0.83
EC	SPR	24	0.28	0.42	0.69	50.05	60.55	0.14	0.17	0.01	68.02	43.36	0.5	75.7	52.45	0.61	0.19	0.47
EC	SUM	21	0.4	0.41	0.58	3.38	22.59	0.01	0.09	0.02	14.17	7.74	0.03	27.47	22.88	0.23	0.13	0.34
EC	FAL	12	0.45	0.57	0.86	27.27	32.38	0.12	0.15	0.02	33.68	23.2	0.27	39.63	29.57	0.32	0.18	0.75
EC	ALL	79	0.37	0.52	0.77	39.59	48.42	0.15	0.18	0.03	59.87	36.27	0.4	66.64	44.02	0.48	0.22	0.59
NACL	WIN	24	0.17	0.11	0.06	-33.72	74.26	-0.06	0.12	0.06	55.77	9.92	-0.51	95.35	72.13	1.12	0.25	0
NACL	SPR	24	0.06	0.13	0.31	112.04	144.56	0.07	0.09	0.06	107.58	33.69	1.12	128.37	60.61	1.45	0.25	0.1
NACL	SUM	21	0.04	0.05	0.54	12.23	59.71	0.01	0.02	0	0.3	-17.86	0.12	45.89	38.94	0.6	0.06	0.29
NACL	FAL	11	0.08	0.08	0.37	-3.91	58.87	0	0.05	0.01	48.83	19.19	-0.04	69.54	48.41	0.61	0.08	0.14
NACL	ALL	80	0.09	0.09	0.11	4.99	84.9	0	0.08	0.04	55.8	11.04	0.05	88.72	56.7	0.85	0.2	0.01
NH4	WIN	24	0.94	1.01	0.9	7.24	36.3	0.07	0.34	0.2	52.34	26.52	0.07	69.16	48.19	0.36	0.46	0.81
NH4	SPR	23	0.36	0.62	0.64	71.15	76.46	0.26	0.28	0.05	129.89	54.77	0.71	134.62	60.02	0.76	0.35	0.42
NH4	SUM	21	0.19	0.38	0.84	100.17	106.01	0.19	0.2	0.07	178.7	66.92	1	182.61	71.5	1.06	0.33	0.7
NH4	FAL	10	0.47	0.71	0.82	52.03	57.49	0.24	0.27	0.07	116.69	57.76	0.52	120.32	61.56	0.57	0.36	0.67
NH4	ALL	78	0.51	0.69	0.87	35.29	54.24	0.18	0.28	0.11	117.48	49.73	0.35	125.57	59.67	0.54	0.38	0.76
NO3	WIN	24	2.03	2.17	0.86	6.71	44.32	0.14	0.9	1.77	87.63	20.65	0.07	110.75	52.24	0.44	1.34	0.74
NO3	SPR	24	0.58	0.65	0.84	13.24	50.05	0.08	0.29	0.14	6.01	-14.87	0.13	54.98	58.17	0.5	0.38	0.7
NO3	SUM	21	0.19	0.1	0.3	-46.9	67.35	-0.09	0.13	0.01	-41.61	-74.8	-0.88	66.26	93.38	1.27	0.15	0.09
NO3	FAL	11	0.72	0.9	0.77	23.93	57.18	0.17	0.41	0.24	156.68	29.6	0.24	186.21	66.73	0.57	0.52	0.6
NO3	ALL	80	0.93	1	0.88	6.85	48	0.06	0.45	0.62	38.71	-13.83	0.07	92.72	66.81	0.48	0.79	0.77
OC	WIN	22	1.49	3.62	0.84	142.44	142.44	2.13	2.13	0.82	200.52	91.67	1.42	200.52	91.67	1.42	2.31	0.7
OC	SPR	24	0.96	1.85	0.64	92.04	97.21	0.88	0.93	0.53	139.73	64.51	0.92	143.13	68.77	0.97	1.15	0.41
OC	SUM	21	2	1.68	0.59	-16.18	30.71	-0.32	0.61	1.03	-3.12	-9.94	-0.19	28.97	28.59	0.37	1.07	0.35
OC	FAL	12	1.42	2.32	0.9	63.01	63.01	0.9	0.9	0.23	91.65	56.72	0.63	91.65	56.72	0.63	1.02	0.8
OC	ALL	79	1.46	2.37	0.53	62.56	80.74	0.91	1.18	1.51	111.38	51.1	0.63	120.95	62.64	0.81	1.53	0.28
PM-2.5	WIN	24	9.01	11.92	0.94	32.21	38.66	2.9	3.48	6.64	49.58	34.7	0.32	54.55	40.56	0.39	3.88	0.89
PM-2.5	SPR	24	5.52	6.45	0.58	16.8	36.01	0.93	1.99	4.87	20.56	12.08	0.17	38.29	34.2	0.36	2.39	0.34
PM-2.5	SUM	21	8.1	5.39	0.72	-33.46	33.48	-2.71	2.71	6.33	-32.05	-40.87	-0.5	32.08	40.9	0.5	3.7	0.52
PM-2.5	FAL	10	7.26	8.8	0.86	21.23	26.49	1.54	1.92	3.6	27.29	19.98	0.21	33.17	26.3	0.26	2.44	0.74
PM-2.5	ALL	79	7.49	8.13	0.82	8.52	35.08	0.64	2.63	10.3	16.24	5.87	0.09	40.93	36.91	0.35	3.27	0.68
SO4	WIN	24	1.37	1.13	0.83	-17.18	26.51	-0.23	0.36	0.26	-7.5	-14.52	-0.21	25.89	27.1	0.32	0.56	0.69
SO4	SPR	24	0.97	1.25	0.36	28.59	45.46	0.28	0.44	0.28	41.81	18.68	0.29	58.57	40.68	0.45	0.6	0.13
SO4	SUM	21	0.97	1.07	0.8	10.4	46.16	0.1	0.45	0.53	12.99	-0.32	0.1	43.55	37.92	0.46	0.73	0.64
SO4	FAL	11	1.13	1.26	0.86	11.56	40.98	0.13	0.46	0.29	1104.62	35.79	0.12	1119.2	52.29	0.41	0.55	0.74
SO4	ALL	80	1.11	1.17	0.67	5.17	38.01	0.06	0.42	0.38	165.59	6.08	0.05	190.65	37.48	0.38	0.62	0.45

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 510870014																		
EC	WIN	22	0.63	1.18	0.76	87.09	87.97	0.55	0.56	0.1	103.07	62.81	0.87	103.52	63.27	0.88	0.63	0.57
EC	SPR	24	0.44	0.61	0.3	38.94	49.26	0.17	0.22	0.04	52.38	32.63	0.39	59.8	40.93	0.49	0.27	0.09
EC	SUM	23	0.61	0.58	0.69	-4.56	23.61	-0.03	0.14	0.03	1.21	-2.41	-0.05	23.59	23.27	0.25	0.18	0.48
EC	FAL	23	0.64	0.84	0.89	30.89	34.47	0.2	0.22	0.04	38.27	28.75	0.31	40.61	31.3	0.34	0.28	0.8
EC	ALL	92	0.58	0.8	0.68	37.79	48.5	0.22	0.28	0.09	48.18	30.11	0.38	56.4	39.45	0.49	0.38	0.46
NACL	WIN	19	0.06	0.22	0.59	294.42	296	0.17	0.17	0.04	706.34	115.23	2.94	707.51	116.46	2.96	0.25	0.35
NACL	SPR	25	0.12	0.26	0.17	123.71	168.98	0.14	0.2	0.1	447.22	78.23	1.24	455.54	90.19	1.69	0.35	0.03
NACL	SUM	23	0.07	0.07	0.18	14.87	77.79	0.01	0.05	0.01	28.5	-3.24	0.15	70.79	59.55	0.78	0.1	0.03
NACL	FAL	22	0.07	0.3	0.48	316.01	323.42	0.23	0.23	0.31	223.64	64.73	3.16	236.47	80.72	3.23	0.6	0.23
NACL	ALL	89	0.08	0.21	0.24	169.61	203.53	0.14	0.16	0.12	339.06	61.74	1.7	355.75	85.54	2.04	0.37	0.06
NH4	WIN	20	1.01	1.28	0.5	26.39	37.55	0.27	0.38	0.49	59.26	25.27	0.26	67.04	34.03	0.38	0.75	0.25
NH4	SPR	25	0.74	0.89	0.61	19.22	37.13	0.14	0.28	0.12	28.02	13.49	0.19	46.74	36.8	0.37	0.37	0.37
NH4	SUM	23	0.91	0.87	0.8	-4.79	23.36	-0.04	0.21	0.09	2.54	-6.24	-0.05	32.53	31.42	0.25	0.3	0.64
NH4	FAL	22	0.44	0.85	0.69	93.79	99.57	0.41	0.44	0.19	144.57	61.05	0.94	148.71	66.27	1	0.6	0.47
NH4	ALL	90	0.77	0.96	0.6	24.48	41.81	0.19	0.32	0.24	56.94	22.69	0.24	72.55	42.01	0.42	0.52	0.36
NO3	WIN	20	1.35	2.47	0.46	82.86	88.98	1.12	1.2	2.46	146.15	55.35	0.83	150.67	60.4	0.89	1.93	0.21
NO3	SPR	25	0.61	1	0.49	64.45	92.47	0.39	0.56	0.46	90.09	25.79	0.64	119.14	68.91	0.92	0.78	0.24
NO3	SUM	23	0.24	0.16	0.72	-32.98	52.44	-0.08	0.13	0.02	-40.77	-63.34	-0.49	50.99	70.11	0.78	0.17	0.51
NO3	FAL	22	0.47	1.33	0.73	180.92	195.82	0.86	0.93	1.11	169.89	57.48	1.81	193.11	92.62	1.96	1.36	0.53
NO3	ALL	90	0.65	1.2	0.64	84.45	105.5	0.55	0.68	1.16	88.61	17.33	0.84	126.81	73.12	1.05	1.21	0.41
OC	WIN	22	1.85	5.92	0.59	220.31	220.31	4.07	4.07	3.98	257.15	106.03	2.2	257.15	106.03	2.2	4.53	0.34
OC	SPR	24	1.39	2.22	0.13	60.52	76.3	0.84	1.06	1.34	91.76	38.75	0.61	106.52	56.3	0.76	1.43	0.02
OC	SUM	23	2.39	2.79	0.79	16.97	33.87	0.4	0.81	0.92	17.51	11.14	0.17	32.06	28.14	0.34	1.04	0.62
OC	FAL	23	1.96	3.2	0.65	63.43	71.54	1.24	1.4	3.03	69.45	40.95	0.63	72.96	44.83	0.72	2.14	0.42
OC	ALL	92	1.89	3.49	0.47	84.89	95.35	1.6	1.8	4.29	107.17	48.49	0.85	115.54	58.29	0.95	2.62	0.22
PM-2.5	WIN	20	9.76	16.65	0.7	70.58	74.56	6.89	7.28	25.97	77.81	51.43	0.71	79.89	53.76	0.75	8.57	0.49
PM-2.5	SPR	25	8.21	8.66	0.14	5.44	37.16	0.45	3.05	12.51	12.94	1.92	0.05	41.49	39.02	0.37	3.56	0.02
PM-2.5	SUM	23	13.85	9.2	0.85	-33.62	33.62	-4.66	4.66	6.41	-34.35	-43.46	-0.51	34.35	43.46	0.51	5.3	0.72
PM-2.5	FAL	21	9.57	11.01	0.62	15.11	34.15	1.45	3.27	21.43	16.93	9.17	0.15	32.68	27.93	0.34	4.85	0.38
PM-2.5	ALL	89	10.34	11.15	0.43	7.85	43.21	0.81	4.47	32.22	16.24	3.03	0.08	46.2	40.86	0.43	5.73	0.19
SO4	WIN	20	2.13	1.65	0.34	-22.44	40.39	-0.48	0.86	1.25	-11.25	-23.16	-0.29	38.35	39.6	0.52	1.22	0.11
SO4	SPR	25	2.24	1.89	0.59	-15.59	28.48	-0.35	0.64	0.54	-12.3	-21.98	-0.18	32.79	36.68	0.34	0.81	0.35
SO4	SUM	23	3.54	2.6	0.71	-26.58	31.44	-0.94	1.11	1.29	-26.81	-36.24	-0.36	31.53	40.44	0.43	1.48	0.5
SO4	FAL	22	1.72	1.6	0.76	-6.88	27.67	-0.12	0.48	0.38	-3.68	-10	-0.07	26.77	27.55	0.3	0.63	0.58
SO4	ALL	90	2.42	1.95	0.68	-19.52	31.77	-0.47	0.77	0.94	-13.67	-22.96	-0.24	32.23	36.06	0.39	1.08	0.46

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 540390011																		
EC	WIN	23	0.74	1.01	0.8	36.2	47.62	0.27	0.35	0.1	57.77	31.87	0.36	68.47	43.74	0.48	0.41	0.63
EC	SPR	10	0.71	0.66	0.63	-8.09	29.3	-0.06	0.21	0.05	-5.64	-11.36	-0.09	30.26	32.1	0.32	0.23	0.39
EC	SUM	20	0.93	0.62	0.3	-33.36	36.31	-0.31	0.34	0.13	-24.04	-33.42	-0.5	32.01	39.75	0.54	0.48	0.09
EC	FAL	22	0.89	0.75	0.39	-15.51	33.65	-0.14	0.3	0.32	6.27	-7.54	-0.18	38.97	37.3	0.4	0.58	0.15
EC	ALL	75	0.83	0.78	0.43	-5.88	37.76	-0.05	0.31	0.22	12.4	-2.86	-0.06	45	39.24	0.4	0.47	0.18
NACL	WIN	23	0.04	0.14	0.75	233.71	233.71	0.1	0.1	0.01	672.16	114.81	2.34	672.16	114.81	2.34	0.13	0.56
NACL	SPR	24	0.04	0.09	0.25	123.97	144.4	0.05	0.06	0	581.77	73.54	1.24	596.23	94.22	1.44	0.07	0.06
NACL	SUM	25	0.04	0.04	0.19	-2.46	60.87	0	0.02	0	64.2	-1.35	-0.03	106.74	56.12	0.62	0.04	0.03
NACL	FAL	22	0.06	0.09	0.52	41.17	80.59	0.03	0.05	0.01	76.82	25.96	0.41	102.17	62.31	0.81	0.1	0.27
NACL	ALL	94	0.05	0.09	0.5	93.7	125.35	0.04	0.06	0.01	348.05	52.58	0.94	368.99	81.65	1.25	0.09	0.25
NH4	WIN	23	0.92	1.03	0.74	11.38	37.25	0.11	0.34	0.21	45.07	17.69	0.11	61.63	37.24	0.37	0.47	0.54
NH4	SPR	24	0.8	0.81	0.33	1.52	49.8	0.01	0.4	0.3	41.07	6.15	0.02	75.5	51.04	0.5	0.55	0.11
NH4	SUM	25	0.85	0.84	0.81	-1.13	28.46	-0.01	0.24	0.08	13.95	5.1	-0.01	36.69	32.06	0.29	0.29	0.66
NH4	FAL	20	0.37	0.61	0.59	65.56	66.24	0.24	0.24	0.04	107.6	50.8	0.66	108.56	51.79	0.66	0.32	0.35
NH4	ALL	92	0.75	0.83	0.66	10.58	41.12	0.08	0.31	0.17	49.16	18.45	0.11	68.67	42.6	0.41	0.42	0.44
NO3	WIN	23	0.99	1.73	0.65	74.86	92.06	0.74	0.91	0.75	188.38	56.22	0.75	206.15	78.71	0.92	1.14	0.42
NO3	SPR	24	0.47	0.72	0.27	53.27	129.91	0.25	0.61	1.1	66.38	-18.84	0.53	133.65	84.22	1.3	1.08	0.07
NO3	SUM	25	0.19	0.1	0.28	-48	54.7	-0.09	0.11	0.01	-46.27	-72.78	-0.92	53.21	77.93	1.05	0.13	0.08
NO3	FAL	22	0.26	0.36	0.78	39.42	76.83	0.1	0.2	0.06	35.4	-3.26	0.39	82.64	68.35	0.77	0.27	0.61
NO3	ALL	94	0.47	0.72	0.65	51.47	95.57	0.24	0.45	0.58	59.02	-11.18	0.51	118.06	77.49	0.96	0.8	0.43
OC	WIN	23	1.06	3.97	0.89	273.8	273.8	2.91	2.91	4.08	372.54	116.26	2.74	372.54	116.26	2.74	3.54	0.78
OC	SPR	10	0.79	2.16	0.62	173.49	173.49	1.37	1.37	0.92	241.22	89.66	1.73	241.22	89.66	1.73	1.67	0.38
OC	SUM	20	2.25	2.59	0.79	15.18	25.49	0.34	0.57	0.45	21.93	14.71	0.15	31.78	25.5	0.25	0.75	0.62
OC	FAL	22	1.05	2.3	0.41	118.69	129.41	1.25	1.36	1.48	169.53	68.83	1.19	177.95	80.64	1.29	1.74	0.16
OC	ALL	75	1.34	2.87	0.52	114.32	121.4	1.53	1.63	2.91	201.99	71.72	1.14	207.08	78.06	1.21	2.29	0.27
PM-2.5	WIN	23	9.24	12.43	0.53	34.53	49.71	3.19	4.59	30.43	48.74	29.31	0.35	57.48	41.71	0.5	6.37	0.28
PM-2.5	SPR	24	9.54	8.21	0.5	-13.94	34.79	-1.33	3.32	19.67	-2.29	-10.59	-0.16	33.86	35.5	0.4	4.63	0.25
PM-2.5	SUM	25	14.11	9.92	0.88	-29.7	29.85	-4.19	4.21	5.36	-29.57	-36.06	-0.42	29.72	36.21	0.42	4.79	0.78
PM-2.5	FAL	22	7.54	7.82	0.64	3.74	32.66	0.28	2.46	9.41	61.05	7.12	0.04	84.96	36.59	0.33	3.08	0.41
PM-2.5	ALL	94	10.21	9.61	0.54	-5.95	35.91	-0.61	3.67	23.35	17.77	-3.46	-0.06	50.49	37.46	0.38	4.87	0.29
SO4	WIN	23	2.38	1.57	0.66	-34.03	40.78	-0.81	0.97	1.04	-25.55	-35.2	-0.52	34.12	42.58	0.62	1.3	0.43
SO4	SPR	24	2.93	2.01	0.38	-31.62	44.54	-0.93	1.31	2.41	-22.79	-34.63	-0.46	37.68	46.3	0.65	1.81	0.14
SO4	SUM	25	4.17	3.32	0.89	-20.29	24.48	-0.85	1.02	0.91	-21.21	-27.01	-0.25	25.62	30.98	0.31	1.27	0.78
SO4	FAL	22	1.59	1.58	0.81	-0.17	17.7	0	0.28	0.17	3.05	-2.5	0	21.92	22.15	0.18	0.42	0.66
SO4	ALL	94	2.81	2.15	0.77	-23.49	32.3	-0.66	0.91	1.29	-17	-25.22	-0.31	29.91	35.66	0.42	1.31	0.59

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 540391005																		
EC	WIN	15	0.82	0.77	0.34	-5.81	50.02	-0.05	0.41	0.31	43.12	13.17	-0.06	71.66	52.16	0.53	0.56	0.11
EC	SPR	15	0.8	0.61	0.54	-23.55	33.39	-0.19	0.27	0.08	-11.78	-19.74	-0.31	32.18	36.08	0.44	0.34	0.29
EC	SUM	16	1.07	0.69	0.78	-36.02	36.32	-0.39	0.39	0.08	-31.61	-39.94	-0.56	32.01	40.34	0.57	0.48	0.6
EC	FAL	15	0.73	0.69	0.89	-5.1	28.53	-0.04	0.21	0.06	15.79	8.81	-0.05	35.33	31.91	0.3	0.26	0.8
EC	ALL	61	0.86	0.69	0.59	-19.6	37.24	-0.17	0.32	0.15	3.3	-9.92	-0.24	42.62	40.13	0.46	0.43	0.34
NACL	WIN	14	0.09	0.12	0.74	33.17	52.25	0.03	0.05	0	52.16	27.41	0.33	67.18	45.94	0.52	0.06	0.54
NACL	SPR	15	0.07	0.08	0.12	30.3	90.61	0.02	0.06	0.01	349.33	31.63	0.3	380.8	76.53	0.91	0.08	0.01
NACL	SUM	14	0.05	0.03	0.04	-43.29	46.67	-0.02	0.03	0	-32.59	-48.21	-0.76	37.26	52.58	0.82	0.04	0
NACL	FAL	14	0.14	0.05	0.03	-61.83	81.7	-0.09	0.11	0.06	57.36	-14.04	-1.62	111.33	71.52	2.14	0.25	0
NACL	ALL	57	0.09	0.07	0.13	-16.91	70.63	-0.01	0.06	0.02	110.82	-0.23	-0.2	153.21	61.9	0.85	0.14	0.02
NH4	WIN	14	1.1	0.88	0.75	-19.46	34.54	-0.21	0.38	0.26	-3.9	-10.89	-0.24	30.65	32.89	0.43	0.55	0.57
NH4	SPR	15	1.03	0.8	0.52	-22.89	36.79	-0.24	0.38	0.29	-8.15	-18.49	-0.3	35.09	39.48	0.48	0.59	0.27
NH4	SUM	15	1.3	0.87	0.67	-33.12	37.04	-0.43	0.48	0.23	-25.83	-36.62	-0.5	33.42	43.13	0.55	0.64	0.45
NH4	FAL	13	0.49	0.62	0.58	26.71	53.97	0.13	0.26	0.08	89.57	38.49	0.27	103.41	56.13	0.54	0.31	0.33
NH4	ALL	57	0.99	0.8	0.66	-19.93	38.18	-0.2	0.38	0.26	10.53	-8.4	-0.25	49.14	42.62	0.48	0.55	0.44
NO3	WIN	14	1.43	1.46	0.69	1.99	43.14	0.03	0.62	0.54	8.47	-8.66	0.02	50.43	54.44	0.43	0.74	0.48
NO3	SPR	15	0.73	0.54	0.19	-25.92	80.62	-0.19	0.59	0.49	-19.42	-70.13	-0.35	84.57	107.14	1.09	0.73	0.04
NO3	SUM	15	0.41	0.08	0.85	-80.26	80.26	-0.33	0.33	0.02	-80.35	-135.31	-4.07	80.35	135.31	4.07	0.36	0.73
NO3	FAL	14	0.66	0.4	0.47	-38.94	51.88	-0.26	0.34	0.26	-34.47	-57.94	-0.64	47.16	68.48	0.85	0.57	0.22
NO3	ALL	58	0.8	0.61	0.7	-23.61	58.65	-0.19	0.47	0.35	-32.08	-69.21	-0.31	66.21	92.37	0.77	0.62	0.48
OC	WIN	15	1.91	3.15	0.49	64.98	79.73	1.24	1.52	1.8	101.04	51.89	0.65	110.65	64.01	0.8	1.83	0.24
OC	SPR	15	1.64	1.93	0.46	17.56	34.88	0.29	0.57	0.73	30.96	16.84	0.18	43.51	31.05	0.35	0.9	0.21
OC	SUM	16	2.42	2.89	0.57	19.35	31.58	0.47	0.76	0.86	26.74	16	0.19	37.62	29.08	0.32	1.04	0.32
OC	FAL	15	1.33	2.22	0.73	67.05	67.05	0.89	0.89	1.16	70.95	47.13	0.67	70.95	47.13	0.67	1.4	0.53
OC	ALL	61	1.83	2.55	0.57	39.14	50.95	0.72	0.93	1.27	56.92	32.69	0.39	65.22	42.59	0.51	1.34	0.32
PM-2.5	WIN	15	11.14	10.22	0.57	-8.28	22.93	-0.92	2.55	10.15	-6.89	-11.83	-0.09	23.34	26.03	0.25	3.32	0.33
PM-2.5	SPR	15	10.31	8	0.61	-22.42	27.31	-2.31	2.82	10.56	-17.04	-24.07	-0.29	27.13	32.04	0.35	3.99	0.37
PM-2.5	SUM	14	18.96	10.44	0.85	-44.94	44.94	-8.52	8.52	9.38	-45.08	-59.71	-0.82	45.08	59.71	0.82	9.05	0.71
PM-2.5	FAL	15	8.48	7.45	0.83	-12.18	23.53	-1.03	1.99	7.21	-8.09	-11.9	-0.14	22.19	24.68	0.27	2.88	0.69
PM-2.5	ALL	59	12.11	9	0.68	-25.65	32.16	-3.11	3.89	18.74	-18.84	-26.32	-0.35	29.17	35.21	0.43	5.33	0.46
SO4	WIN	14	2.33	1.37	0.87	-41.27	42.28	-0.96	0.99	0.88	-32.82	-43.13	-0.7	36.16	46.12	0.72	1.34	0.76
SO4	SPR	15	2.86	2.21	0.58	-22.64	35.54	-0.65	1.02	1.49	-19.96	-27.91	-0.29	32.08	37.57	0.46	1.38	0.34
SO4	SUM	15	4.5	3.47	0.74	-22.73	30.23	-1.02	1.36	1.54	-21.69	-29.97	-0.29	31.37	37.66	0.39	1.61	0.55
SO4	FAL	14	2.04	1.65	0.71	-19.29	25.42	-0.39	0.52	0.48	-8.92	-17.67	-0.24	29.43	32.82	0.32	0.8	0.5
SO4	ALL	58	2.96	2.2	0.77	-25.66	33.05	-0.76	0.98	1.17	-20.85	-29.65	-0.35	32.24	38.51	0.44	1.32	0.59

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 540511002																		
EC	WIN	5	1.03	0.5	0.42	-51.31	55.09	-0.53	0.57	0.45	-27.16	-44.39	-1.05	41.47	56.53	1.13	0.86	0.17
EC	SUM	3	0.64	0.33	0.98	-49.19	49.19	-0.32	0.32	0.03	-46.21	-63.28	-0.97	46.21	63.28	0.97	0.36	0.96
EC	FAL	15	0.58	0.34	0.59	-40.75	42.11	-0.24	0.24	0.08	-27.88	-38.18	-0.69	32.94	42.43	0.71	0.37	0.35
EC	ALL	23	0.69	0.38	0.55	-45.24	47.22	-0.31	0.32	0.17	-30.11	-42.8	-0.83	36.52	48.22	0.86	0.51	0.3
NACL	WIN	5	0.07	0.1	0.95	44.81	51.4	0.03	0.04	0	130.01	52.1	0.45	135.42	57.9	0.51	0.05	0.91
NACL	SUM	3	0.08	0.02	0.48	-73.04	73.04	-0.06	0.06	0	-70.02	-109.24	-2.71	70.02	109.24	2.71	0.07	0.23
NACL	FAL	15	0.05	0.05	0.34	-7.47	57.04	0	0.03	0	-3.33	-19.81	-0.08	53.77	54.83	0.62	0.04	0.12
NACL	ALL	23	0.06	0.06	0.64	-5.61	58.43	0	0.04	0	16.96	-15.84	-0.06	73.64	62.6	0.62	0.04	0.41
NH4	WIN	5	0.58	0.71	0.94	22.51	29.47	0.13	0.17	0.03	17.97	13.91	0.23	26.93	23.41	0.29	0.22	0.88
NH4	SUM	3	1.56	0.8	0.78	-48.82	54.21	-0.76	0.85	0.69	-30.69	-46.51	-0.95	43.48	58.17	1.06	1.13	0.61
NH4	FAL	15	0.55	0.57	0.75	4.36	41.81	0.02	0.23	0.12	54.26	23.73	0.04	69.33	42.74	0.42	0.34	0.57
NH4	ALL	23	0.68	0.63	0.63	-8.1	43.23	-0.06	0.3	0.25	35.29	12.43	-0.09	56.74	40.55	0.47	0.5	0.4
NO3	WIN	5	1.32	1.43	0.97	8.16	25.49	0.11	0.34	0.16	-4.53	-12.06	0.08	27.32	31.66	0.25	0.41	0.95
NO3	SUM	3	0.25	0.06	0.96	-75.77	75.77	-0.19	0.19	0	-76.55	-125.02	-3.13	76.55	125.02	3.13	0.19	0.92
NO3	FAL	15	0.48	0.45	0.75	-6.67	50.52	-0.03	0.24	0.09	-3.9	-26.29	-0.07	56.84	62.47	0.54	0.31	0.56
NO3	ALL	23	0.63	0.61	0.93	-3.46	40.45	-0.02	0.26	0.1	-13.52	-36.08	-0.04	52.99	63.93	0.42	0.32	0.86
OC	WIN	5	3	2.17	0.46	-27.45	44.59	-0.82	1.34	4.31	23.84	-5.82	-0.38	65.63	57.94	0.61	2.23	0.21
OC	SUM	3	1.65	2.07	0.48	25.32	35.87	0.42	0.59	0.28	31.36	23.11	0.25	39.57	31.87	0.36	0.67	0.23
OC	FAL	15	1.43	1.21	0.67	-15.49	33.27	-0.22	0.48	0.44	7.57	-2.21	-0.18	38.24	36.23	0.39	0.7	0.45
OC	ALL	23	1.8	1.53	0.57	-14.94	37.68	-0.27	0.68	1.39	14.21	0.31	-0.18	44.37	40.38	0.44	1.21	0.32
PM-2.5	WIN	5	12.18	7.68	0.49	-36.91	37.79	-4.5	4.6	36.02	-26.11	-36.51	-0.59	27.47	37.85	0.6	7.5	0.24
PM-2.5	SUM	3	19.07	9.68	0.93	-49.25	49.25	-9.39	9.39	2.82	-50.83	-69.49	-0.97	50.83	69.49	0.97	9.54	0.86
PM-2.5	FAL	15	9.85	5.8	0.73	-41.11	41.11	-4.05	4.05	9.29	-37.89	-49.77	-0.7	37.89	49.77	0.7	5.07	0.54
PM-2.5	ALL	23	11.56	6.72	0.72	-41.9	42.1	-4.84	4.87	17.39	-37.02	-49.46	-0.72	37.31	49.75	0.72	6.39	0.52
SO4	WIN	5	1.87	0.99	0.84	-46.98	46.98	-0.88	0.88	0.14	-44.97	-60.02	-0.89	44.97	60.02	0.89	0.96	0.7
SO4	SUM	3	6.25	4.43	0.99	-29.19	29.19	-1.82	1.82	0.31	-34.26	-43.02	-0.41	34.26	43.02	0.41	1.91	0.98
SO4	FAL	15	2.28	1.7	0.96	-25.73	26.72	-0.59	0.61	0.31	-26.04	-33.2	-0.35	27.71	34.82	0.36	0.81	0.92
SO4	ALL	23	2.71	1.9	0.97	-29.96	30.5	-0.81	0.83	0.44	-31.23	-40.31	-0.43	32.32	41.37	0.44	1.05	0.94

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 540690010																		
EC	WIN	10	0.5	0.52	0.07	3.55	40.39	0.02	0.2	0.06	17.43	1.41	0.04	48.38	41.91	0.4	0.25	0.01
EC	SPR	15	0.56	0.38	0.58	-32.07	36.88	-0.18	0.21	0.07	-24.01	-32.62	-0.47	32.26	40	0.54	0.32	0.34
EC	SUM	13	0.87	0.4	0.61	-54.33	55.76	-0.47	0.49	0.15	-43.01	-62.01	-1.19	47.25	65.94	1.22	0.61	0.37
EC	ALL	38	0.65	0.42	0.27	-35.06	46.22	-0.23	0.3	0.13	-19.61	-33.72	-0.54	41.63	49.38	0.71	0.43	0.07
NACL	WIN	10	0.09	0.08	0.17	-4.9	49.27	0	0.04	0	24.82	-3.74	-0.05	65.18	48.36	0.52	0.06	0.03
NACL	SPR	14	0.05	0.06	0.19	20.21	59.38	0.01	0.03	0	89.38	23.04	0.2	116.65	58.38	0.59	0.04	0.04
NACL	SUM	9	0.06	0.02	0.82	-56.57	56.57	-0.03	0.03	0	-54.76	-76.48	-1.3	54.76	76.48	1.3	0.03	0.68
NACL	ALL	33	0.06	0.06	0.31	-8.54	54.52	-0.01	0.03	0	30.51	-12.22	-0.09	84.18	60.28	0.6	0.04	0.09
NH4	WIN	10	1.36	1.08	0.79	-20.75	29.11	-0.28	0.4	0.16	-19.26	-25.35	-0.26	28.77	33.48	0.37	0.49	0.63
NH4	SPR	14	0.99	0.83	0.69	-16.44	32.8	-0.16	0.33	0.2	-16.32	-22.67	-0.2	27.43	31.96	0.39	0.47	0.48
NH4	SUM	9	1.49	1.1	0.86	-26.33	30.19	-0.39	0.45	0.21	-8.22	-18.56	-0.36	37.21	36.11	0.41	0.6	0.75
NH4	ALL	33	1.24	0.98	0.77	-21.11	30.72	-0.26	0.38	0.2	-15	-22.36	-0.27	30.5	33.55	0.39	0.52	0.59
NO3	WIN	10	2.07	2.12	0.33	2.56	54.86	0.05	1.14	2.24	22.71	-5.82	0.03	68.85	56.51	0.55	1.5	0.11
NO3	SPR	14	0.78	0.85	0.38	9.43	75.12	0.07	0.58	0.94	39.55	-41.78	0.09	121.66	89.07	0.75	0.97	0.14
NO3	SUM	9	0.39	0.13	0.57	-65.42	65.42	-0.25	0.25	0.03	-62.26	-93.81	-1.89	62.26	93.81	1.89	0.31	0.32
NO3	ALL	33	1.06	1.04	0.6	-2.08	62.2	-0.02	0.66	1.11	6.68	-45.07	-0.02	89.46	80.5	0.64	1.05	0.36
OC	WIN	10	1.67	2.47	0.14	47.61	63.51	0.8	1.06	1.01	66.42	33.64	0.48	81.54	50.98	0.64	1.28	0.02
OC	SPR	15	1.34	1.41	0.71	5.05	33.67	0.07	0.45	0.3	17.03	7.42	0.05	37.95	32.8	0.34	0.55	0.51
OC	SUM	13	2.08	1.89	0.73	-9.15	30.32	-0.19	0.63	0.52	-1.1	-9.33	-0.1	34.5	34.65	0.33	0.75	0.53
OC	ALL	38	1.68	1.85	0.57	10.19	40.07	0.17	0.67	0.72	23.83	8.59	0.1	48.24	38.22	0.4	0.86	0.32
PM-2.5	WIN	10	11.51	9.69	0.51	-15.79	28.83	-1.82	3.32	13.21	-15.98	-23.07	-0.19	28.9	34.1	0.34	4.06	0.26
PM-2.5	SPR	14	9.76	6.74	0.64	-30.9	36.73	-3.02	3.58	9.45	-28.66	-39.46	-0.45	35.93	46.01	0.53	4.31	0.41
PM-2.5	SUM	9	18.87	10.37	0.9	-45.04	45.04	-8.5	8.5	7.33	-46.23	-61.55	-0.82	46.23	61.55	0.82	8.92	0.8
PM-2.5	ALL	33	12.77	8.63	0.69	-32.47	37.92	-4.15	4.84	17.36	-29.61	-40.52	-0.48	36.61	46.64	0.56	5.88	0.47
SO4	WIN	10	2.66	1.42	0.86	-46.77	46.77	-1.24	1.24	0.65	-44.1	-60.47	-0.88	44.1	60.47	0.88	1.48	0.74
SO4	SPR	14	2.92	1.82	0.77	-37.79	37.79	-1.1	1.1	1.17	-38.01	-50.53	-0.61	38.01	50.53	0.61	1.54	0.59
SO4	SUM	9	5.86	4.66	0.94	-20.44	25.34	-1.2	1.48	1.14	-20.74	-25.75	-0.26	26.73	31.32	0.32	1.6	0.89
SO4	ALL	33	3.64	2.47	0.92	-32.16	34.31	-1.17	1.25	1	-35.15	-46.78	-0.47	36.78	48.3	0.51	1.54	0.84

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 550090005																		
EC	WIN	5	0.33	0.74	0.87	120.73	120.73	0.4	0.4	0.02	140.26	79.11	1.21	140.26	79.11	1.21	0.43	0.75
EC	FAL	9	0.33	0.79	0.82	135.99	135.99	0.45	0.45	0.05	1663.06	87.39	1.36	1663.1	87.39	1.36	0.51	0.68
EC	ALL	14	0.33	0.77	0.83	130.53	130.53	0.43	0.43	0.04	1119.21	84.43	1.31	1119.2	84.43	1.31	0.48	0.69
NACL	WIN	5	0.06	0.22	0.53	237.16	237.16	0.15	0.15	0	246.87	103.12	2.37	246.87	103.12	2.37	0.17	0.28
NACL	FAL	9	0.06	0.14	0.48	138.07	141.49	0.08	0.08	0	152.52	73.57	1.38	155.89	77.22	1.41	0.11	0.23
NACL	ALL	14	0.06	0.17	0.5	175.5	177.63	0.11	0.11	0.01	186.21	84.12	1.76	188.38	86.47	1.78	0.13	0.25
NH4	WIN	5	1.35	1.11	1	-17.38	25.87	-0.23	0.35	0.14	9.69	2.64	-0.21	35.2	31.51	0.31	0.44	1
NH4	FAL	9	0.91	1.11	0.9	21.67	30.3	0.2	0.28	0.12	79.39	37.38	0.22	83.44	41.64	0.3	0.4	0.81
NH4	ALL	14	1.07	1.11	0.9	4.11	28.31	0.04	0.3	0.17	54.5	24.98	0.04	66.21	38.02	0.28	0.41	0.81
NO3	WIN	5	3.13	2.66	0.98	-14.91	19.94	-0.47	0.62	0.56	2.89	-2.63	-0.18	29.92	28.5	0.23	0.88	0.97
NO3	FAL	9	1.95	2.27	0.78	16.53	40.91	0.32	0.8	1.22	27.44	0.87	0.17	60.93	46.98	0.41	1.15	0.61
NO3	ALL	14	2.37	2.41	0.87	1.72	31.03	0.04	0.74	1.13	18.67	-0.38	0.02	49.85	40.38	0.31	1.06	0.75
OC	WIN	5	1.14	3.26	0.89	186.62	186.62	2.13	2.13	0.12	268.67	104.63	1.87	268.67	104.63	1.87	2.15	0.79
OC	FAL	8	1.26	2.57	0.6	103.61	111.93	1.31	1.41	1.12	144.56	70.26	1.04	148.79	74.87	1.12	1.68	0.36
OC	ALL	13	1.21	2.83	0.6	133.57	138.88	1.62	1.69	0.9	192.29	83.48	1.34	194.89	86.32	1.39	1.88	0.36
PM-2.5	WIN	5	9.82	11.77	0.95	19.9	23.03	1.95	2.26	5.73	54.19	32.22	0.2	55.97	34.03	0.23	3.09	0.91
PM-2.5	FAL	9	8.86	10.92	0.69	23.35	40.54	2.07	3.59	19.66	224.02	38	0.23	238.61	54.78	0.41	4.89	0.48
PM-2.5	ALL	14	9.2	11.23	0.78	22.04	33.86	2.03	3.12	14.69	163.37	35.94	0.22	173.38	47.37	0.34	4.34	0.61
SO4	WIN	5	1.5	0.92	0.67	-39.13	40.86	-0.59	0.61	0.28	-28.32	-38.38	-0.64	32.54	42.38	0.67	0.79	0.45
SO4	FAL	9	1.38	1.31	0.96	-4.98	24.16	-0.07	0.33	0.17	28.38	11.49	-0.05	46.14	31.33	0.25	0.42	0.93
SO4	ALL	14	1.42	1.17	0.84	-17.87	30.46	-0.25	0.43	0.27	8.13	-6.32	-0.22	41.28	35.28	0.37	0.58	0.71

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 550270001																		
EC	WIN	29	0.3	0.49	0.8	60.31	61.07	0.18	0.19	0.01	69.89	47.53	0.6	70.45	48.1	0.61	0.21	0.64
EC	SPR	31	0.29	0.37	0.8	29.12	40.19	0.08	0.11	0.01	38.88	25.85	0.29	46.7	34.68	0.4	0.14	0.63
EC	SUM	31	0.39	0.32	0.64	-17.31	30.61	-0.07	0.12	0.02	-1.3	-11.66	-0.21	34.56	31.78	0.37	0.16	0.42
EC	FAL	30	0.33	0.47	0.83	40.69	45.89	0.14	0.15	0.03	53.02	33.67	0.41	57.61	38.71	0.46	0.22	0.7
EC	ALL	121	0.33	0.41	0.64	24.8	43.33	0.08	0.14	0.03	39.52	23.37	0.25	51.98	38.15	0.43	0.19	0.41
NACL	WIN	29	0.05	0.11	0.31	104.6	113.79	0.06	0.06	0	278.64	78.17	1.05	282.35	82.25	1.14	0.07	0.1
NACL	SPR	30	0.05	0.09	0.42	79.02	98.11	0.04	0.05	0	141.93	56.51	0.79	153.5	71.43	0.98	0.06	0.18
NACL	SUM	30	0.04	0.02	0.03	-45.51	66.22	-0.02	0.03	0	82.76	-37.82	-0.84	156.37	74.19	1.22	0.04	0
NACL	FAL	28	0.03	0.05	0.04	70.01	93.09	0.02	0.03	0	404.6	48.02	0.7	420.39	69.67	0.93	0.03	0
NACL	ALL	117	0.04	0.07	0.31	53.23	93.84	0.02	0.04	0	223.5	35.66	0.53	250.04	74.4	0.94	0.05	0.1
NH4	WIN	29	1.57	1.32	0.63	-16.09	41.87	-0.25	0.66	1.28	21.29	1.37	-0.19	53.19	41.98	0.5	1.16	0.4
NH4	SPR	31	1.2	1.42	0.79	18.09	36.89	0.22	0.44	0.44	56.54	25.12	0.18	68.47	38.14	0.37	0.7	0.63
NH4	SUM	31	0.66	0.88	0.69	32.29	68.44	0.21	0.45	0.33	195.73	54.83	0.32	210.29	73.74	0.68	0.61	0.47
NH4	FAL	29	0.52	0.9	0.92	74.4	75.38	0.39	0.39	0.11	169.88	71.91	0.74	170.71	72.79	0.75	0.51	0.84
NH4	ALL	120	0.99	1.13	0.72	14.59	49.18	0.14	0.49	0.59	111.37	38.37	0.15	126.12	56.64	0.49	0.78	0.52
NO3	WIN	29	3.61	3.1	0.79	-14.02	29.18	-0.51	1.05	3.49	0.61	-6.72	-0.16	30.19	30.38	0.34	1.93	0.62
NO3	SPR	31	2.41	2.63	0.86	9.17	32.12	0.22	0.77	1.5	32.35	-2.12	0.09	70.24	52.3	0.32	1.24	0.74
NO3	SUM	31	0.67	0.77	0.6	14.26	68.02	0.1	0.46	0.59	49.62	-22.03	0.14	114.07	78.64	0.68	0.77	0.36
NO3	FAL	29	1.02	1.62	0.65	58.5	76.12	0.6	0.78	1.62	66.23	15.85	0.58	97.06	60.78	0.76	1.41	0.42
NO3	ALL	120	1.92	2.02	0.8	5.45	39.72	0.1	0.76	1.93	37.33	-4.03	0.05	78.37	55.85	0.4	1.39	0.64
OC	WIN	29	1.12	2.53	0.76	125.44	125.44	1.41	1.41	0.37	169.27	81.63	1.25	169.27	81.63	1.25	1.53	0.58
OC	SPR	31	0.92	1.61	0.85	74.38	74.38	0.69	0.69	0.19	163.63	61.49	0.74	163.63	61.49	0.74	0.81	0.72
OC	SUM	31	1.57	1.58	0.68	0.5	35.63	0.01	0.56	0.55	13.91	3.65	0.01	39.19	35.2	0.36	0.74	0.47
OC	FAL	29	1.09	1.68	0.72	54.6	58.4	0.59	0.63	0.24	83.17	49.06	0.55	85.3	51.31	0.58	0.77	0.52
OC	ALL	120	1.18	1.84	0.6	56.33	69.26	0.66	0.82	0.58	106.87	48.41	0.56	113.92	57.1	0.69	1.01	0.36
PM-2.5	WIN	29	10.78	10.6	0.8	-1.69	23.66	-0.18	2.55	13.47	6.99	2.8	-0.02	24.17	22.55	0.24	3.67	0.64
PM-2.5	SPR	31	8.54	9.67	0.81	13.24	29.07	1.13	2.48	13.3	27.58	13.86	0.13	41.58	29.9	0.29	3.82	0.65
PM-2.5	SUM	31	8.73	7.35	0.72	-15.72	31.11	-1.37	2.71	10.19	-9.54	-17.61	-0.19	32.79	34.71	0.37	3.47	0.52
PM-2.5	FAL	29	7.32	8.1	0.85	10.55	25.61	0.77	1.88	6.93	15.28	7.88	0.11	31.6	26.9	0.26	2.74	0.73
PM-2.5	ALL	120	8.84	8.92	0.78	0.91	27.3	0.08	2.41	11.96	10.04	1.61	0.01	32.69	28.64	0.27	3.46	0.61
SO4	WIN	29	1.66	1.15	0.47	-30.62	55.66	-0.51	0.92	2.04	-26.89	-41.57	-0.44	42.88	51.75	0.8	1.51	0.22
SO4	SPR	31	1.69	1.87	0.74	10.85	34.69	0.18	0.58	0.93	17.43	6.02	0.11	36.74	28.5	0.35	0.98	0.55
SO4	SUM	31	1.97	1.82	0.72	-7.34	36.72	-0.14	0.72	1.26	10.04	0.1	-0.08	37.79	35.46	0.4	1.13	0.51
SO4	FAL	30	1.27	1.2	0.92	-4.88	29.65	-0.06	0.38	0.24	22.66	7.77	-0.05	45.63	34.78	0.31	0.49	0.85
SO4	ALL	121	1.65	1.52	0.67	-7.71	39.41	-0.13	0.65	1.17	6.21	-6.47	-0.08	40.69	37.41	0.43	1.09	0.45

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 550790026																		
EC	WIN	26	0.45	0.71	0.7	58.97	65.11	0.26	0.29	0.05	71.27	42.6	0.59	75.93	49.02	0.65	0.35	0.49
EC	SPR	29	0.43	0.87	0.71	104.77	112.88	0.45	0.48	0.12	172.29	71.86	1.05	179.19	80.34	1.13	0.57	0.5
EC	SUM	30	0.58	0.96	0.57	66.37	73	0.38	0.42	0.12	87.46	49.21	0.66	91.28	53.61	0.73	0.51	0.32
EC	FAL	28	0.61	0.71	0.87	14.94	36.19	0.09	0.22	0.07	21.63	10.46	0.15	41.18	34.06	0.36	0.29	0.76
EC	ALL	113	0.52	0.82	0.7	57.92	69.07	0.3	0.36	0.11	89.2	43.9	0.58	97.9	54.57	0.69	0.45	0.49
NACL	WIN	28	0.12	0.15	0.26	26.92	96.42	0.03	0.12	0.03	134.48	52.98	0.27	153.73	80.32	0.96	0.16	0.07
NACL	SPR	30	0.05	0.09	0.56	84.38	92.3	0.04	0.05	0	115.63	59.78	0.84	119.01	63.83	0.92	0.06	0.31
NACL	SUM	30	0.04	0.03	0.39	-30.88	48.79	-0.01	0.02	0	-13.54	-32.59	-0.45	48.54	54.56	0.71	0.03	0.15
NACL	FAL	29	0.05	0.04	0.08	-16.97	60.79	-0.01	0.03	0	20.53	-16.76	-0.2	74.29	62.3	0.73	0.05	0.01
NACL	ALL	117	0.07	0.08	0.39	20.08	80.72	0.01	0.05	0.01	63.45	15.5	0.2	98.17	65.02	0.81	0.09	0.16
NH4	WIN	28	1.59	1.31	0.81	-17.5	36.26	-0.28	0.58	0.57	11.86	-5.87	-0.21	48.57	39.67	0.44	0.81	0.66
NH4	SPR	30	1.13	1.49	0.71	31.67	56.6	0.36	0.64	0.65	109.16	31.7	0.32	129.14	56.75	0.57	0.88	0.5
NH4	SUM	31	0.66	0.88	0.63	32.95	64.02	0.22	0.42	0.28	128.57	52.25	0.33	139.78	67.44	0.64	0.57	0.4
NH4	FAL	30	0.62	0.74	0.95	18.5	30.6	0.12	0.19	0.05	77.95	36.97	0.18	87.11	47.52	0.31	0.25	0.9
NH4	ALL	119	0.99	1.1	0.77	11.24	46.09	0.11	0.46	0.44	83.46	29.54	0.11	102.36	53.19	0.46	0.67	0.59
NO3	WIN	28	3.51	2.88	0.9	-18.1	27.73	-0.64	0.97	1.31	-12.47	-21.72	-0.22	34.15	38.29	0.34	1.31	0.81
NO3	SPR	30	2.39	3.06	0.76	28.08	60.64	0.67	1.45	3.95	72.34	15.32	0.28	107.08	68.35	0.61	2.1	0.58
NO3	SUM	31	0.62	0.64	0.57	4.18	74.03	0.03	0.46	0.43	13.03	-33.94	0.04	87.9	81.82	0.74	0.66	0.33
NO3	FAL	30	1.19	1.08	0.88	-9.12	46.14	-0.11	0.55	0.5	-26.07	-59.34	-0.1	60.81	83.38	0.51	0.72	0.78
NO3	ALL	119	1.89	1.89	0.82	-0.04	45.09	0	0.85	1.76	12.13	-25.05	0	73.26	68.57	0.45	1.33	0.68
OC	WIN	26	1.36	2.35	0.48	72.21	82.7	0.99	1.13	0.61	91.33	54.1	0.72	97.24	62.06	0.83	1.26	0.23
OC	SPR	29	1.11	2.41	0.82	116.94	121.07	1.3	1.35	0.8	179.48	75.7	1.17	183.11	79.87	1.21	1.58	0.67
OC	SUM	30	1.87	2.53	0.66	35.33	49.29	0.66	0.92	0.94	47.89	29.22	0.35	57.17	40.54	0.49	1.17	0.43
OC	FAL	28	1.48	1.72	0.75	16.43	33.86	0.24	0.5	0.46	24.02	13.64	0.16	38.82	31.08	0.34	0.72	0.56
OC	ALL	113	1.46	2.26	0.64	54.46	66.62	0.8	0.97	0.86	85.74	43.01	0.54	94.16	53.24	0.67	1.22	0.4
PM-2.5	WIN	28	11.09	10.74	0.8	-3.2	25.28	-0.36	2.8	14.87	10.04	1.49	-0.03	33.54	28.99	0.26	3.87	0.64
PM-2.5	SPR	30	8.69	12.55	0.8	44.38	57.8	3.86	5.02	29.38	57.62	32.26	0.44	71.08	48.96	0.58	6.65	0.64
PM-2.5	SUM	31	10.88	10.23	0.63	-6.01	32.9	-0.65	3.58	20.85	4.9	-4.9	-0.06	37.21	35.61	0.35	4.61	0.39
PM-2.5	FAL	30	7.55	7.85	0.93	3.92	20.74	0.3	1.57	5.05	2.28	-1.46	0.04	21.32	21.59	0.21	2.27	0.87
PM-2.5	ALL	119	9.54	10.33	0.74	8.31	34.11	0.79	3.25	20.89	18.74	6.84	0.08	40.88	33.88	0.34	4.64	0.55
SO4	WIN	28	1.76	1.27	0.47	-28.19	50.2	-0.5	0.88	1.84	-21.05	-32.98	-0.39	38.11	44.51	0.7	1.44	0.22
SO4	SPR	30	1.65	2.13	0.7	29.53	52.27	0.49	0.86	2.16	33.55	14.62	0.3	51.55	35.66	0.52	1.55	0.49
SO4	SUM	31	2.16	2.18	0.56	0.9	39.55	0.02	0.85	2.57	20.75	6.33	0.01	41.21	33.73	0.4	1.6	0.32
SO4	FAL	30	1.45	1.26	0.92	-13.06	29.55	-0.19	0.43	0.3	5.69	-3.11	-0.15	34.48	32.03	0.34	0.58	0.84
SO4	ALL	119	1.76	1.72	0.58	-2.1	42.99	-0.04	0.76	1.85	10.35	-3.21	-0.02	41.39	36.32	0.44	1.36	0.34

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O (µg/m^3)	MEAN_P (µg/m^3)	r unitless	NMB (%)	NME (%)	MB (µg/m^3)	ME (µg/m^3)	VAR (µg/m^3)^2	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 551198001																		
EC	WIN	15	0.26	0.28	0.61	7.89	43.16	0.02	0.11	0.02	40.05	22.35	0.08	56.9	44.35	0.43	0.14	0.37
EC	SPR	15	0.19	0.17	0.39	-7.77	47.72	-0.01	0.09	0.03	39.33	9.09	-0.08	67.23	49.56	0.52	0.17	0.15
EC	SUM	16	0.24	0.14	0.64	-42.69	43.01	-0.1	0.1	0.01	-39.92	-53.41	-0.74	40.28	53.77	0.75	0.13	0.41
EC	FAL	15	0.26	0.29	0.88	10.91	26.14	0.03	0.07	0.01	28.76	12.74	0.11	44.84	31.29	0.26	0.1	0.77
EC	ALL	61	0.24	0.22	0.61	-7.96	39.43	-0.02	0.09	0.02	16.12	-3.15	-0.09	52.12	44.89	0.43	0.14	0.37
NACL	WIN	13	0.1	0.07	0.27	-32.2	64.74	-0.03	0.06	0.02	21.01	-9.34	-0.48	63.19	55.72	0.95	0.13	0.07
NACL	SPR	15	0.05	0.05	0.11	8.4	70.67	0	0.03	0	162.01	7.14	0.08	207.49	69.45	0.71	0.04	0.01
NACL	SUM	16	0.03	0.02	0.16	-53.65	67.25	-0.02	0.02	0	-8.59	-41.59	-1.16	64.02	75.24	1.45	0.04	0.02
NACL	FAL	15	0.04	0.04	0.06	5.22	82.54	0	0.03	0	707.81	14.96	0.05	748.97	77.71	0.83	0.05	0
NACL	ALL	59	0.05	0.04	0.1	-19.54	70.01	-0.01	0.04	0	223.44	-7.72	-0.24	274.46	70.1	0.87	0.07	0.01
NH4	WIN	14	0.99	0.87	0.83	-12.06	30.78	-0.12	0.3	0.22	8.26	-2.56	-0.14	35.67	35.41	0.35	0.48	0.69
NH4	SPR	15	1.07	0.96	0.88	-11.07	39.89	-0.12	0.43	0.39	90.03	24.84	-0.12	112.46	53.49	0.45	0.64	0.77
NH4	SUM	16	0.26	0.46	0.92	79.57	79.57	0.21	0.21	0.05	249.12	67.85	0.8	249.12	67.85	0.8	0.31	0.85
NH4	FAL	13	0.75	1.11	0.86	48.02	55.99	0.36	0.42	0.22	229.06	72.04	0.48	232.48	75.8	0.56	0.59	0.75
NH4	ALL	58	0.76	0.83	0.83	10.26	44.32	0.08	0.33	0.26	145.34	40.67	0.1	158.52	58.09	0.44	0.51	0.69
NO3	WIN	14	2.42	2.07	0.83	-14.3	32.98	-0.35	0.8	1.36	5.59	-10.64	-0.17	42.33	39.11	0.38	1.22	0.69
NO3	SPR	15	1.97	1.52	0.94	-23.05	31.53	-0.45	0.62	0.99	-24.83	-45.98	-0.3	49.54	63.53	0.41	1.09	0.88
NO3	SUM	16	0.22	0.2	0.86	-6.97	61.06	-0.02	0.13	0.03	-17.29	-51.45	-0.07	69.68	83.7	0.66	0.17	0.73
NO3	FAL	15	1.38	1.88	0.88	36.09	62.15	0.5	0.86	1.38	52.72	-8.21	0.36	109.2	83.8	0.62	1.28	0.77
NO3	ALL	60	1.46	1.39	0.87	-5.03	40.5	-0.07	0.59	1.05	3.67	-29.75	-0.05	68.15	68.28	0.43	1.03	0.76
OC	WIN	15	1.03	1.83	0.58	78.15	90.81	0.8	0.93	0.36	143.87	69.58	0.78	149.42	76.16	0.91	1	0.34
OC	SPR	15	0.53	1.1	0.47	108.45	130.02	0.57	0.69	0.36	336.34	79.09	1.08	344.16	90.16	1.3	0.83	0.22
OC	SUM	16	1.56	1.15	0.61	-26.56	39.39	-0.42	0.62	0.41	-18.59	-28.45	-0.36	36.41	43.11	0.54	0.76	0.37
OC	FAL	14	1.02	1.47	0.81	44.18	48.38	0.45	0.49	0.25	82.62	47.87	0.44	84.86	50.3	0.48	0.67	0.65
OC	ALL	60	1.04	1.38	0.5	32.42	65.58	0.34	0.68	0.57	134.37	40.75	0.32	152.91	64.81	0.66	0.83	0.25
PM-2.5	WIN	14	9.43	7.24	0.83	-23.25	26.62	-2.19	2.51	6.96	-18.57	-24.89	-0.3	25.73	31.22	0.35	3.43	0.69
PM-2.5	SPR	15	7.59	6.27	0.84	-17.37	29.57	-1.32	2.25	11.99	-4.24	-12.42	-0.21	31.91	33.9	0.36	3.71	0.71
PM-2.5	SUM	16	7.61	4.38	0.64	-42.41	45.67	-3.23	3.48	5.37	-43.17	-58.86	-0.74	45.63	61.1	0.79	3.97	0.41
PM-2.5	FAL	15	7.41	7.46	0.91	0.75	25.14	0.06	1.86	6.54	0.44	-5.7	0.01	27.44	28.89	0.25	2.56	0.82
PM-2.5	ALL	60	7.98	6.29	0.81	-21.16	31.82	-1.69	2.54	9.17	-16.8	-26.03	-0.27	33.01	39.28	0.4	3.47	0.65
SO4	WIN	14	1.46	0.81	0.81	-44.4	44.4	-0.65	0.65	0.27	-39.91	-53.8	-0.8	39.91	53.8	0.8	0.83	0.65
SO4	SPR	14	1.77	1.55	0.74	-12.62	35.71	-0.22	0.63	0.85	5.8	-2.76	-0.14	34.52	33.6	0.41	0.95	0.54
SO4	SUM	16	1.22	1.21	0.88	-0.55	30.1	-0.01	0.37	0.28	0.34	-4.96	-0.01	28.06	27.84	0.3	0.53	0.77
SO4	FAL	15	1.41	1.32	0.89	-6.47	28.81	-0.09	0.41	0.32	19.42	5.83	-0.07	43.95	34.82	0.31	0.57	0.79
SO4	ALL	59	1.46	1.23	0.78	-15.92	34.8	-0.23	0.51	0.48	-3.07	-13.28	-0.19	36.45	37.14	0.41	0.73	0.6

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)
CSN Monitoring Station: 551330027																		
EC	WIN	14	0.42	0.68	0.57	63.17	63.17	0.26	0.26	0.02	74.06	49.01	0.63	74.06	49.01	0.63	0.31	0.33
EC	SPR	15	0.51	0.66	0.69	28.66	48.19	0.15	0.25	0.07	50.74	33.12	0.29	58.81	42.65	0.48	0.3	0.47
EC	SUM	16	0.85	0.67	0.66	-21.07	25.32	-0.18	0.21	0.09	-12.86	-17.25	-0.27	19.25	23.32	0.32	0.34	0.44
EC	FAL	14	0.57	0.72	0.75	26.3	34.5	0.15	0.2	0.04	31.74	23.55	0.26	37.21	29.73	0.34	0.24	0.56
EC	ALL	59	0.59	0.68	0.56	14.64	38.71	0.09	0.23	0.08	34.52	20.96	0.15	46.57	35.85	0.39	0.3	0.32
NACL	WIN	15	0.14	0.09	0.07	-36.64	60.35	-0.05	0.09	0.02	16.89	-9.11	-0.58	59.24	58.5	0.95	0.14	0
NACL	SPR	15	0.06	0.08	0.56	49.83	80.19	0.03	0.04	0	117.12	50.23	0.5	128.8	65.86	0.8	0.06	0.32
NACL	SUM	14	0.05	0.03	0.54	-50.2	51.79	-0.03	0.03	0	-46.4	-69.35	-1.01	49.61	72.24	1.04	0.03	0.29
NACL	FAL	14	0.06	0.04	0.36	-30.55	40.47	-0.02	0.03	0	-19.65	-31.05	-0.44	36.97	45.54	0.58	0.03	0.13
NACL	ALL	58	0.08	0.06	0.34	-22.1	58.75	-0.02	0.05	0.01	18.71	-13.6	-0.28	69.53	60.59	0.75	0.08	0.12
NH4	WIN	15	1.34	1.09	0.87	-19.05	35.67	-0.26	0.48	0.51	0.47	-6.45	-0.24	30.33	32.81	0.44	0.76	0.76
NH4	SPR	15	1.25	1.47	0.85	17.9	34.72	0.22	0.43	0.32	65.04	27.79	0.18	79.01	43.3	0.35	0.61	0.72
NH4	SUM	14	0.9	0.98	0.63	9.41	46.13	0.08	0.41	0.26	60.18	26.2	0.09	78.56	50.32	0.46	0.52	0.39
NH4	FAL	13	0.67	0.8	0.8	19.12	44.76	0.13	0.3	0.17	85.87	38.01	0.19	94.98	48.35	0.45	0.43	0.64
NH4	ALL	57	1.05	1.1	0.8	3.92	38.87	0.04	0.41	0.36	51.61	20.72	0.04	69.73	43.42	0.39	0.6	0.63
NO3	WIN	15	3.19	2.62	0.89	-17.85	27.55	-0.57	0.88	1.3	-11.13	-17.79	-0.22	27.79	32.21	0.34	1.28	0.8
NO3	SPR	15	2.49	2.74	0.89	9.92	36.43	0.25	0.91	1.11	19.04	-7.09	0.1	64.92	58.72	0.36	1.08	0.78
NO3	SUM	14	0.8	0.6	0.36	-25.86	62.18	-0.21	0.5	0.6	-7.52	-41.14	-0.35	67.4	76.83	0.84	0.8	0.13
NO3	FAL	14	1.35	1.38	0.85	1.73	33.74	0.02	0.46	0.47	-0.6	-22.67	0.02	51.72	49.65	0.34	0.69	0.73
NO3	ALL	58	1.99	1.86	0.87	-6.43	34.82	-0.13	0.69	0.98	0.09	-21.84	-0.07	52.73	54.05	0.37	1	0.76
OC	WIN	14	1.22	2.4	0.65	97.05	97.05	1.18	1.18	0.3	118.29	68.78	0.97	118.29	68.78	0.97	1.3	0.42
OC	SPR	15	1.03	1.89	0.77	84.63	84.63	0.87	0.87	0.36	107.8	62.34	0.85	107.8	62.34	0.85	1.05	0.59
OC	SUM	16	2.34	2.07	0.62	-11.54	30.95	-0.27	0.73	1.17	-4.3	-11.18	-0.13	26.97	29.17	0.35	1.12	0.38
OC	FAL	14	1.44	1.71	0.61	18.75	41.95	0.27	0.6	0.53	49.33	30.26	0.19	59.52	42.45	0.42	0.78	0.38
OC	ALL	59	1.53	2.02	0.53	32.23	55.1	0.49	0.84	0.92	66.01	36.32	0.32	76.91	50.15	0.55	1.08	0.29
PM-2.5	WIN	15	10.37	9.85	0.9	-5	22.04	-0.52	2.28	7.48	5.35	1.58	-0.05	24.26	23.16	0.23	2.78	0.81
PM-2.5	SPR	15	9.73	10.96	0.95	12.56	18.43	1.22	1.79	3.35	17.14	11.77	0.13	27.13	23.95	0.18	2.2	0.91
PM-2.5	SUM	14	14.06	9.4	0.87	-33.19	33.19	-4.67	4.67	7.1	-31.84	-39.37	-0.5	31.84	39.37	0.5	5.37	0.75
PM-2.5	FAL	14	8.02	7.82	0.78	-2.45	25.25	-0.2	2.03	7.09	20.34	6.4	-0.03	40.06	29.49	0.26	2.67	0.61
PM-2.5	ALL	58	10.53	9.54	0.81	-9.42	25.36	-0.99	2.67	10.97	3.04	-4.51	-0.1	30.65	28.8	0.28	3.46	0.66
SO4	WIN	15	1.56	0.92	0.76	-41.05	42.67	-0.64	0.67	0.61	-34.47	-45.81	-0.7	36.41	47.67	0.72	1.01	0.57
SO4	SPR	15	1.8	2.05	0.76	13.68	39.15	0.25	0.71	0.98	28.51	14.03	0.14	45.69	34.41	0.39	1.02	0.58
SO4	SUM	14	2.75	2.3	0.56	-16.3	27.45	-0.45	0.75	1.68	-0.76	-9.27	-0.19	27.63	29.82	0.33	1.37	0.31
SO4	FAL	14	1.37	1.03	0.87	-24.95	35.88	-0.34	0.49	0.37	-3.31	-12.45	-0.33	36.31	36.94	0.48	0.7	0.76
SO4	ALL	58	1.86	1.57	0.69	-15.71	35.17	-0.29	0.66	1.02	-2.52	-13.46	-0.19	36.67	37.34	0.42	1.05	0.47

2011 Model Performance Results by Pollutant and Quarter - CSN Sites

Pollutant	Quarter	N	MEAN_O ($\mu g/m^3$)	MEAN_P ($\mu g/m^3$)	r unitless	NMB (%)	NME (%)	MB ($\mu g/m^3$)	ME ($\mu g/m^3$)	VAR $(\mu g/m^3)^2$	MNB (%)	MFB (%)	NMFB unitless	MNGE (%)	MFE (%)	NMFE unitless	RMSE unitless	RSQR (%)

N: Number of observations
MEAN_O: Average of the observed values
MEAN_P: Average of the modeled values
r: Pearson correlation coefficient
NMB: Normalized Mean Bias
NME: Normalized Mean Error
MB: Mean Bias
ME: Mean Error
VAR: Variance
MNB: Mean Normalized Bias
MFB: Mean Fractional Bias
NMBF: Normalized Mean Bias Fraction
MNGE: Mean Normalized Gross Factor
MFE: Mean Fractional Error
NMEF: Normalized Mean Error Fraction
RMSE: Root Mean Squared Error
RSQR: r-squared

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