

## APPENDIX B: SEASONAL AND ANNUAL REGIONAL RECONSTRUCTED FINE MASS AND RECONSTRUCTED EXTINCTION BUDGETS

**Table B.1. IMPROVE Seasonal and annual regional reconstructed fine mass budget.**

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	FM	RCFM
Alaska								
SP	0.84	0.71	0.08	0.10	0.26	2.49	2.44	1.98
SU	0.68	2.95	0.16	0.13	0.11	2.41	2.73	4.03
F	0.35	0.61	0.06	0.07	0.08	2.43	1.49	1.19
W	0.35	0.23	0.04	0.07	0.07	1.69	1.33	0.75
A	0.55	1.12	0.09	0.09	0.13	2.27	1.98	1.98
Appalachia								
SP	5.22	3.09	0.36	0.96	0.67	3.90	9.79	10.31
SU	9.65	3.86	0.44	0.33	0.76	3.61	15.80	15.04
F	5.39	3.31	0.43	0.73	0.39	3.14	9.70	10.24
W	2.94	2.52	0.35	1.39	0.27	1.92	6.43	7.47
A	5.86	3.22	0.40	0.84	0.52	3.16	10.51	10.84
Boundary Waters								
SP	2.01	1.46	0.15	0.72	0.33	2.35	4.31	4.68
SU	2.00	3.16	0.21	0.15	0.31	3.89	5.86	5.83
F	1.79	1.63	0.19	0.70	0.25	2.71	4.14	4.56
W	1.52	1.06	0.13	1.28	0.17	1.34	3.80	4.17
A	1.83	1.81	0.17	0.72	0.26	2.56	4.51	4.79
California Coast								
SP	1.46	1.54	0.16	0.88	0.63	7.90	5.35	4.68
SU	2.13	1.82	0.16	0.77	0.43	8.24	6.25	5.31
F	1.48	2.00	0.24	1.08	0.43	7.58	5.60	5.23
W	0.76	1.47	0.21	1.39	0.17	3.94	3.91	4.01
A	1.46	1.71	0.19	1.03	0.43	6.92	5.31	4.82
Central Great Plains								
SP	3.04	2.63	0.28	2.69	0.67	7.51	8.36	9.32
SU	3.99	3.05	0.32	0.59	0.95	9.51	8.67	8.90
F	2.73	2.14	0.29	1.60	0.58	8.54	6.86	7.34
W	1.98	1.70	0.25	4.08	0.42	5.67	8.02	8.43
A	2.97	2.39	0.29	2.12	0.67	7.94	7.93	8.43
Colorado Plateau								
SP	0.84	1.13	0.11	0.26	1.23	4.21	3.56	3.58
SU	1.13	1.97	0.16	0.19	0.98	4.58	4.52	4.44
F	0.85	1.33	0.14	0.22	0.52	2.75	2.83	3.07
W	0.52	0.64	0.11	0.41	0.26	1.65	1.63	1.94
A	0.83	1.27	0.13	0.27	0.74	3.27	3.13	3.24
Columbia River Gorge								
SP	1.15	1.85	0.24	0.59	0.58	5.20	4.02	4.41
SU	1.85	2.61	0.30	0.53	1.01	10.45	5.93	6.30
F	1.34	4.32	0.47	1.45	0.79	7.01	7.23	8.36

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	FM	RCFM
W	1.13	2.14	0.33	1.99	0.22	2.05	4.45	5.81
A	1.37	2.75	0.34	1.14	0.65	6.06	5.40	6.25
Central Rockies								
SP	0.76	0.84	0.08	0.33	1.18	3.76	3.20	3.20
SU	0.96	2.26	0.16	0.20	0.87	4.29	4.48	4.45
F	0.68	0.97	0.10	0.19	0.38	2.27	2.17	2.31
W	0.43	0.47	0.06	0.21	0.23	1.58	1.16	1.40
A	0.70	1.13	0.10	0.23	0.65	2.96	2.74	2.82
Death Valley								
SP	1.27	1.11	0.10	0.34	2.27	8.88	5.49	5.09
SU	1.83	2.34	0.21	0.42	1.87	11.00	6.94	6.67
F	1.02	0.95	0.11	0.23	0.97	7.12	3.38	3.28
W	0.46	0.46	0.06	0.28	0.69	4.63	2.02	1.94
A	1.14	1.23	0.12	0.31	1.43	7.83	4.44	4.23
East Coast								
SP	5.08	2.14	0.28	0.83	0.53	8.38	8.97	8.87
SU	7.41	3.49	0.35	0.43	0.68	6.62	12.16	12.37
F	4.15	2.39	0.33	0.66	0.32	6.24	7.87	7.85
W	3.46	2.44	0.42	1.65	0.27	4.64	7.91	8.23
A	5.02	2.61	0.35	0.88	0.46	6.50	9.25	9.31
Great Basin								
SP	0.63	0.88	0.08	0.18	0.89	3.35	2.76	2.65
SU	0.81	2.13	0.14	0.16	1.24	5.85	4.91	4.48
F	0.56	1.02	0.10	0.15	0.50	2.90	2.25	2.32
W	0.27	0.68	0.08	0.14	0.19	1.38	1.08	1.36
A	0.57	1.17	0.10	0.15	0.69	3.34	2.74	2.67
Hawaii								
SP	1.75	0.72	0.07	0.20	0.33	2.61	3.67	3.08
SU	0.91	0.50	0.05	0.18	0.16	2.37	2.18	1.80
F	1.48	0.60	0.07	0.15	0.13	2.19	3.00	2.43
W	1.81	0.58	0.07	0.17	0.14	2.17	3.47	2.77
A	1.48	0.60	0.06	0.18	0.19	2.34	3.08	2.51
Hells Canyon								
SP	0.67	1.37	0.11	0.21	0.70	2.50	2.92	3.07
SU	0.69	3.30	0.21	0.13	0.76	5.49	4.95	5.08
F	0.58	2.60	0.21	0.33	0.46	2.90	3.62	4.18
W	0.45	1.49	0.15	1.05	0.12	0.66	2.55	3.26
A	0.59	2.18	0.17	0.43	0.50	2.81	3.50	3.88
Mogollon Plateau								
SP	1.02	1.35	0.13	0.33	1.64	6.55	4.60	4.47
SU	1.43	2.48	0.21	0.26	1.49	6.28	5.76	5.88
F	1.09	1.55	0.19	0.26	0.90	4.34	3.81	4.00
W	0.60	1.03	0.17	0.39	0.45	2.68	2.23	2.65
A	1.04	1.61	0.18	0.31	1.13	4.98	4.14	4.27
Mid South								
SP	3.70	3.51	0.32	1.29	0.80	8.21	8.99	9.62
SU	5.27	3.57	0.30	0.37	1.51	9.30	11.07	11.02
F	3.38	3.10	0.31	0.68	0.52	6.89	7.56	7.99
W	2.22	2.25	0.29	2.51	0.37	4.85	6.69	7.63
A	3.69	3.12	0.30	1.17	0.81	7.32	8.63	9.10

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	FM	RCFM
Northeast								
SP	3.05	1.84	0.25	0.64	0.47	3.78	5.87	6.25
SU	5.14	3.49	0.36	0.29	0.44	3.57	9.81	9.72
F	2.70	1.93	0.29	0.47	0.24	2.85	5.33	5.63
W	2.19	2.04	0.32	0.92	0.25	2.51	5.08	5.73
A	3.30	2.33	0.30	0.57	0.35	3.18	6.56	6.86
Northern Great Plains								
SP	1.30	1.12	0.11	0.52	0.69	4.30	3.39	3.74
SU	1.26	2.99	0.19	0.18	0.67	6.85	5.24	5.28
F	0.96	1.41	0.14	0.44	0.56	4.69	3.22	3.51
W	0.98	0.79	0.10	0.93	0.31	2.47	2.74	3.11
A	1.12	1.59	0.14	0.51	0.56	4.59	3.67	3.92
Northern Rockies								
SP	0.75	1.14	0.10	0.22	0.60	2.45	2.66	2.81
SU	0.70	4.50	0.26	0.13	0.68	4.44	5.22	6.28
F	0.60	2.52	0.19	0.19	0.43	2.48	3.42	3.93
W	0.39	0.84	0.09	0.26	0.10	0.76	1.38	1.68
A	0.61	2.26	0.16	0.20	0.45	2.50	3.17	3.68
Northwest								
SP	0.82	1.66	0.16	0.25	0.48	2.36	3.01	3.37
SU	1.21	2.72	0.22	0.25	0.76	4.13	5.08	5.16
F	0.70	2.86	0.24	0.29	0.58	3.05	4.04	4.67
W	0.36	1.32	0.16	0.31	0.08	0.77	1.95	2.23
A	0.78	2.18	0.20	0.27	0.49	2.60	3.57	3.91
Oregon and Northern California								
SP	0.69	1.21	0.11	0.21	0.56	2.09	2.83	2.78
SU	0.98	4.00	0.27	0.25	0.41	3.03	4.34	5.92
F	0.60	2.50	0.20	0.22	0.33	2.41	3.44	3.84
W	0.24	0.85	0.10	0.15	0.08	0.91	1.28	1.43
A	0.63	2.17	0.17	0.21	0.34	2.11	2.98	3.52
Ohio River Valley								
SP	5.27	3.07	0.41	1.67	0.71	5.26	10.41	11.12
SU	9.04	4.03	0.51	0.54	0.94	5.36	15.60	15.07
F	5.39	3.74	0.51	1.12	0.53	5.34	10.38	11.29
W	3.41	2.75	0.42	2.86	0.36	3.10	8.68	9.81
A	5.89	3.42	0.47	1.49	0.65	4.82	11.40	11.91
Puget Sound								
SP	1.54	3.70	0.59	1.06	0.45	5.46	6.02	7.33
SU	2.57	3.62	0.65	0.80	0.64	8.40	7.12	8.28
F	2.06	6.83	0.93	1.77	0.48	6.12	10.35	12.07
W	1.21	5.74	1.01	1.48	0.37	4.06	8.37	9.81
A	1.85	5.00	0.80	1.28	0.48	6.13	8.01	9.41
Phoenix								
SP	1.45	4.00	0.64	0.82	3.19	20.84	9.00	10.10
SU	2.05	3.20	0.55	0.52	2.80	22.56	8.83	9.11
F	1.69	5.69	1.03	1.07	3.19	23.32	10.88	12.67
W	1.07	10.71	1.69	3.32	2.49	21.40	14.65	19.28

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	FM	RCFM
A	1.59	5.79	0.96	1.37	2.93	22.12	10.72	12.66
Southern Arizona								
SP	1.26	1.29	0.14	0.39	2.52	9.73	5.86	5.61
SU	1.92	1.63	0.15	0.35	2.27	9.86	6.59	6.32
F	1.42	1.31	0.19	0.40	1.87	9.01	4.85	5.19
W	0.81	1.15	0.22	0.73	1.29	6.48	3.63	4.20
A	1.36	1.35	0.17	0.46	1.99	8.83	5.27	5.34
Southern California								
SP	1.70	2.11	0.29	2.71	0.99	7.45	6.70	7.80
SU	2.65	3.23	0.40	1.70	0.97	10.42	7.95	8.95
F	1.66	2.00	0.31	1.94	0.85	7.25	5.77	6.76
W	0.56	1.06	0.21	1.67	0.39	4.61	3.12	3.89
A	1.64	2.11	0.30	2.00	0.80	7.46	5.91	6.85
Southeast								
SP	4.70	3.66	0.36	0.55	0.70	6.07	9.43	9.97
SU	4.46	2.71	0.25	0.34	1.47	6.56	9.24	9.23
F	4.41	2.81	0.37	0.39	0.48	5.11	8.38	8.46
W	3.50	3.45	0.50	0.70	0.30	4.05	7.82	8.44
A	4.27	3.16	0.37	0.49	0.72	5.40	8.70	9.02
Sierra Nevada								
SP	1.31	2.08	0.19	0.96	0.90	5.13	4.93	5.43
SU	1.91	4.86	0.38	0.60	0.94	9.61	7.60	8.70
F	1.01	3.11	0.29	1.26	0.72	6.84	5.45	6.39
W	0.38	0.94	0.13	0.99	0.15	1.59	2.33	2.58
A	1.13	2.70	0.24	0.95	0.67	5.68	5.01	5.70
Virgin Islands								
SP	1.44	0.46	0.09	0.23	1.23	11.40	5.86	3.46
SU	1.26	0.31	0.05	0.29	3.88	20.28	9.76	5.80
F	1.15	0.41	0.11	0.21	1.81	10.91	5.06	3.69
W	0.97	0.39	0.09	0.17	0.37	9.76	3.47	2.00
A	1.20	0.39	0.08	0.23	1.95	13.37	6.23	3.85
Washington DC								
SP	5.98	4.02	0.75	2.10	0.81	5.60	12.68	13.65
SU	10.54	5.16	0.90	0.81	0.95	4.96	17.97	18.37
F	5.44	4.58	0.96	1.85	0.76	5.97	12.40	13.59
W	3.97	4.74	0.87	3.24	0.57	5.51	12.45	13.40
A	6.36	4.61	0.87	1.99	0.77	5.53	13.74	14.61
West Texas								
SP	2.26	1.71	0.14	0.45	2.32	13.03	7.44	6.88
SU	2.62	1.46	0.10	0.35	2.13	10.96	6.95	6.66
F	2.20	1.20	0.15	0.46	0.84	6.67	5.08	4.86
W	1.41	0.97	0.15	0.86	1.17	7.57	4.65	4.56
A	2.12	1.34	0.13	0.53	1.61	9.52	6.04	5.74

**Table B.2. IMPROVE seasonal and annual regional reconstructed extinction budget.**

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	B <sub>ext</sub>	DV
Alaska								
SP	7.41	2.83	0.78	0.91	0.26	1.50	13.70	8.63
SU	7.62	11.79	1.61	1.33	0.11	1.45	23.91	12.21
F	3.95	2.46	0.63	0.80	0.08	1.46	9.37	6.61
W	3.71	0.93	0.39	0.68	0.07	1.01	6.79	5.18
A	5.61	4.49	0.85	0.94	0.13	1.36	13.39	8.50
Appalachia								
SP	44.67	12.37	3.56	7.89	0.67	2.34	71.50	20.98
SU	98.93	15.46	4.36	3.30	0.76	2.16	124.97	26.02
F	53.86	13.22	4.32	6.75	0.39	1.88	80.42	22.02
W	26.87	10.08	3.51	12.57	0.27	1.15	54.45	18.63
A	56.83	12.87	3.96	7.49	0.52	1.89	83.56	22.36
Boundary Waters								
SP	15.26	5.86	1.51	5.59	0.33	1.41	29.96	13.85
SU	18.37	12.63	2.14	1.34	0.31	2.33	37.14	15.50
F	17.23	6.53	1.90	6.56	0.25	1.63	34.10	14.84
W	13.15	4.25	1.35	11.24	0.17	0.80	30.96	14.10
A	16.00	7.22	1.72	6.21	0.26	1.54	32.95	14.57
California Coast								
SP	11.69	6.15	1.64	7.20	0.63	4.74	32.05	14.36
SU	15.16	7.29	1.58	5.42	0.43	4.95	34.83	15.00
F	11.15	7.98	2.36	8.26	0.43	4.55	34.73	14.98
W	7.24	5.88	2.10	13.43	0.17	2.36	31.18	14.15
A	11.32	6.84	1.91	8.51	0.43	4.15	33.16	14.62
Central Great Plains								
SP	24.37	10.53	2.85	21.34	0.67	4.51	64.26	20.05
SU	35.05	12.19	3.20	5.13	0.95	5.71	62.22	19.77
F	23.81	8.55	2.90	13.92	0.58	5.13	54.88	18.70
W	18.18	6.80	2.49	37.36	0.42	3.40	68.65	20.62
A	25.75	9.56	2.88	18.38	0.67	4.76	61.99	19.74
Colorado Plateau								
SP	4.29	4.52	1.14	1.33	1.23	2.52	15.04	9.18
SU	5.12	7.87	1.62	0.84	0.98	2.75	19.19	10.71
F	4.60	5.32	1.42	1.25	0.52	1.65	14.76	9.07
W	3.81	2.56	1.07	3.06	0.26	0.99	11.75	7.77
A	4.45	5.07	1.32	1.58	0.74	1.96	15.12	9.21
Columbia River Gorge								
SP	11.79	7.42	2.42	6.14	0.58	3.12	31.47	14.22
SU	15.39	10.46	3.00	4.42	1.01	6.27	40.56	16.20
F	15.99	17.26	4.68	19.32	0.79	4.21	62.25	19.78
W	15.41	8.54	3.32	26.93	0.22	1.23	55.66	18.82
A	14.69	11.00	3.37	14.20	0.65	3.64	47.55	17.50
Central Rockies								
SP	4.71	3.35	0.85	2.09	1.18	2.26	14.44	8.93

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	B <sub>ext</sub>	DV
SU	5.39	9.02	1.57	1.13	0.87	2.57	20.56	11.17
F	4.07	3.89	0.96	1.11	0.38	1.36	11.78	7.78
W	2.80	1.89	0.63	1.34	0.23	0.95	7.84	5.79
A	4.22	4.53	1.01	1.41	0.65	1.78	13.60	8.59
Death Valley								
SP	7.14	4.44	1.03	1.90	2.27	5.33	22.11	11.67
SU	8.61	9.37	2.06	1.97	1.87	6.60	30.49	13.98
F	5.22	3.81	1.14	1.18	0.97	4.27	16.60	9.78
W	3.18	1.84	0.60	1.96	0.69	2.78	11.06	7.45
A	6.01	4.90	1.22	1.74	1.43	4.70	20.00	10.99
East Coast								
SP	40.93	8.57	2.83	6.67	0.53	5.03	64.56	20.09
SU	69.84	13.98	3.51	4.07	0.68	3.97	96.05	23.61
F	38.05	9.54	3.35	5.96	0.32	3.74	60.96	19.60
W	29.16	9.76	4.18	13.97	0.27	2.78	60.12	19.48
A	44.54	10.46	3.45	7.54	0.46	3.90	70.35	20.84
Great Basin								
SP	3.62	3.51	0.77	0.99	0.89	2.01	11.80	7.79
SU	3.50	8.52	1.38	0.68	1.24	3.51	18.83	10.59
F	2.76	4.07	0.95	0.76	0.50	1.74	10.77	7.31
W	2.02	2.70	0.84	1.01	0.19	0.83	7.59	5.65
A	2.96	4.67	0.98	0.86	0.69	2.00	12.15	7.95
Hawaii								
SP	14.30	2.87	0.70	1.57	0.33	1.57	21.34	11.42
SU	7.18	2.01	0.51	1.39	0.16	1.42	12.67	8.18
F	12.79	2.42	0.66	1.23	0.13	1.31	18.53	10.48
W	15.32	2.31	0.68	1.39	0.14	1.30	21.15	11.36
A	12.30	2.40	0.63	1.39	0.19	1.40	18.32	10.41
Hells Canyon								
SP	4.65	5.49	1.15	1.51	0.70	1.50	15.00	9.16
SU	3.55	13.19	2.07	0.67	0.76	3.29	23.53	12.10
F	4.35	10.42	2.13	2.88	0.46	1.74	21.97	11.62
W	4.69	5.95	1.53	11.13	0.12	0.39	23.81	12.18
A	4.34	8.72	1.72	4.07	0.50	1.69	21.05	11.33
Mogollon Plateau								
SP	4.45	5.38	1.29	1.47	1.64	3.93	18.17	10.36
SU	6.62	9.91	2.10	1.14	1.49	3.77	25.03	12.54
F	5.51	6.21	1.91	1.35	0.90	2.60	18.49	10.47
W	3.87	4.13	1.71	2.48	0.45	1.61	14.26	8.86
A	5.11	6.45	1.75	1.59	1.13	2.99	19.02	10.65
Mid South								
SP	31.12	14.02	3.23	10.14	0.80	4.92	64.23	20.05
SU	46.43	14.27	2.98	3.17	1.51	5.58	73.95	21.28
F	30.59	12.41	3.09	5.88	0.52	4.13	56.62	18.96
W	20.29	8.98	2.92	22.08	0.37	2.91	57.55	19.10
A	32.54	12.48	3.05	9.89	0.81	4.39	63.17	19.90
Northeast								
SP	25.21	7.35	2.46	5.28	0.47	2.27	43.03	16.68
SU	48.48	13.96	3.59	2.76	0.44	2.14	71.37	20.96
F	26.28	7.71	2.86	4.46	0.24	1.71	43.27	16.73

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	B <sub>ext</sub>	DV
W	18.86	8.17	3.23	8.00	0.25	1.51	40.01	16.10
A	30.05	9.33	3.04	5.02	0.35	1.91	49.70	17.87
Northern Great Plains								
SP	9.64	4.47	1.11	3.91	0.69	2.58	22.40	11.76
SU	8.24	11.95	1.91	1.17	0.67	4.11	28.06	13.36
F	6.93	5.65	1.35	3.48	0.56	2.81	20.77	11.24
W	8.10	3.16	1.03	7.85	0.31	1.48	21.94	11.61
A	8.19	6.38	1.36	4.06	0.56	2.76	23.31	12.03
Northern Rockies								
SP	5.51	4.57	1.01	1.62	0.60	1.47	14.78	9.08
SU	4.29	18.01	2.60	0.81	0.68	2.66	29.06	13.62
F	4.69	10.07	1.93	1.63	0.43	1.49	20.23	11.06
W	3.56	3.36	0.93	2.46	0.10	0.46	10.87	7.36
A	4.52	9.04	1.63	1.63	0.45	1.50	18.77	10.57
Northwest								
SP	8.60	6.66	1.56	2.60	0.48	1.42	21.32	11.42
SU	11.30	10.90	2.16	2.31	0.76	2.48	29.91	13.84
F	8.76	11.43	2.43	3.81	0.58	1.83	28.84	13.57
W	4.90	5.27	1.60	4.19	0.08	0.46	16.51	9.75
A	8.46	8.70	1.96	3.23	0.49	1.56	24.40	12.35
Oregon and Northern California								
SP	6.54	4.85	1.06	1.97	0.56	1.25	16.24	9.65
SU	8.06	16.02	2.69	2.02	0.41	1.82	31.03	14.12
F	5.67	10.01	1.96	2.14	0.33	1.45	21.56	11.49
W	2.84	3.39	0.99	1.75	0.08	0.54	9.60	6.73
A	5.79	8.66	1.69	1.98	0.34	1.27	19.73	10.90
Ohio River Valley								
SP	45.78	12.27	4.05	14.04	0.71	3.15	80.01	21.97
SU	92.76	16.13	5.13	5.49	0.94	3.22	123.67	25.93
F	52.30	14.96	5.13	10.44	0.53	3.20	86.56	22.68
W	32.64	11.01	4.23	27.51	0.36	1.86	77.60	21.70
A	57.06	13.68	4.66	13.81	0.65	2.89	92.76	23.30
Puget Sound								
SP	16.17	14.78	5.91	11.25	0.45	3.27	51.83	18.22
SU	22.74	14.47	6.48	7.12	0.64	5.04	56.49	18.95
F	25.42	27.32	9.30	22.44	0.48	3.67	88.64	22.89
W	16.12	22.95	10.09	19.68	0.37	2.43	71.65	21.00
A	20.20	20.00	7.99	15.10	0.48	3.68	67.45	20.47
Phoenix								
SP	5.43	16.01	6.37	3.25	3.19	12.50	46.75	17.36
SU	7.77	12.79	5.45	1.94	2.80	13.53	44.29	16.92
F	6.89	22.77	10.33	4.55	3.19	13.99	61.73	19.70
W	5.80	42.84	16.92	18.06	2.49	12.84	98.95	23.88
A	6.53	23.16	9.65	6.61	2.93	13.27	62.16	19.76
Southern Arizona								
SP	4.76	5.16	1.40	1.51	2.52	5.84	21.19	11.38

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	CM	B <sub>ext</sub>	DV
SU	8.22	6.52	1.48	1.44	2.27	5.92	25.85	12.77
F	6.39	5.24	1.90	1.79	1.87	5.41	22.59	11.81
W	4.58	4.60	2.23	4.20	1.29	3.89	20.78	11.24
A	6.00	5.40	1.75	2.19	1.99	5.30	22.64	11.83
Southern California								
SP	11.24	8.43	2.89	17.98	0.99	4.47	45.99	17.23
SU	16.10	12.93	4.01	9.91	0.97	6.25	50.17	17.95
F	10.51	8.01	3.06	11.89	0.85	4.35	38.67	15.82
W	3.94	4.25	2.09	11.84	0.39	2.76	25.27	12.60
A	10.45	8.42	3.02	12.84	0.80	4.48	40.01	16.10
Southeast								
SP	42.18	14.64	3.64	4.94	0.70	3.64	69.74	20.76
SU	46.96	10.82	2.51	3.50	1.47	3.93	69.19	20.69
F	44.67	11.23	3.65	3.92	0.48	3.07	67.01	20.41
W	33.75	13.78	5.00	6.79	0.30	2.43	62.05	19.75
A	41.95	12.64	3.73	4.76	0.72	3.24	67.04	20.42
Sierra Nevada								
SP	8.41	8.31	1.85	6.37	0.90	3.08	28.93	13.59
SU	9.62	19.45	3.81	3.04	0.94	5.77	42.63	16.61
F	5.73	12.45	2.88	7.61	0.72	4.10	33.49	14.70
W	3.03	3.75	1.25	7.92	0.15	0.95	17.06	9.95
A	6.61	10.81	2.42	6.24	0.67	3.41	30.17	13.90
Virgin Islands								
SP	9.75	1.85	0.91	1.58	1.23	6.84	22.15	11.68
SU	8.92	1.24	0.54	2.05	3.88	12.17	28.79	13.56
F	8.67	1.64	1.05	1.61	1.81	6.55	21.32	11.42
W	6.71	1.57	0.94	1.19	0.37	5.86	16.64	9.80
A	8.50	1.55	0.84	1.63	1.95	8.02	22.49	11.78
Washington DC								
SP	47.67	16.06	7.55	16.42	0.81	3.36	91.86	23.21
SU	94.27	20.66	9.03	7.19	0.95	2.97	135.08	26.75
F	49.32	18.34	9.59	16.28	0.76	3.58	97.87	23.78
W	32.76	18.95	8.75	26.87	0.57	3.31	91.21	23.15
A	54.94	18.45	8.73	16.66	0.77	3.32	102.85	24.24
West Texas								
SP	10.14	6.84	1.40	2.02	2.32	7.82	30.54	14.00
SU	13.61	5.84	1.03	1.80	2.13	6.58	31.00	14.11
F	12.38	4.80	1.48	2.52	0.84	4.00	26.01	12.81
W	8.31	3.90	1.47	5.35	1.17	4.54	24.74	12.45
A	11.10	5.36	1.35	2.93	1.61	5.71	28.06	13.37

**Table B.3. STN seasonal and annual regional reconstructed fine mass budget.**

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	RCFM
Alaska						
SP	0.94	5.44	0.54	0.69	0.73	8.64
SU	0.83	6.12	0.44	0.37	0.48	8.58
F	0.51	5.91	0.69	0.53	0.35	8.31
W	0.80	10.02	1.15	1.24	0.28	14.05
A	0.79	3.99	0.69	0.71	0.49	9.79

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	RCFM
<b>Boise</b>						
SP	0.83	5.59	0.38	1.20	0.60	8.92
SU	0.98	9.11	0.40	0.62	1.30	12.91
F	1.30	9.33	0.63	2.72	1.07	15.57
W	2.09	7.76	0.54	6.25	0.29	17.36
A	1.29	5.25	0.49	2.66	0.83	13.72
<b>Chicago Area</b>						
SP	3.57	4.95	0.46	4.01	0.50	13.75
SU	4.97	7.18	0.51	1.53	0.59	15.18
F	4.11	5.79	0.57	2.95	0.43	14.18
W	2.85	5.23	0.45	5.58	0.37	14.76
A	3.93	3.80	0.50	3.45	0.47	14.49
<b>Central Minnesota</b>						
SP	2.44	4.15	0.23	2.16	0.37	9.58
SU	1.90	6.55	0.20	0.36	1.01	10.38
F	1.94	4.13	0.20	1.64	0.38	8.52
W	2.06	3.94	0.24	3.88	0.26	10.60
A	2.07	1.89	0.22	2.02	0.49	9.69
<b>Washington DC-Philadelphia Corridor</b>						
SP	6.10	7.08	0.64	2.50	0.65	17.37
SU	10.82	10.43	0.65	1.20	0.71	24.39
F	5.35	8.11	0.77	1.96	0.47	17.11
W	4.16	8.48	0.82	3.94	0.44	18.31
A	6.87	5.98	0.71	2.29	0.58	19.53
<b>Denver</b>						
SP	1.90	5.80	0.82	2.15	1.49	12.48
SU	1.99	8.48	0.95	1.17	1.56	14.62
F	1.78	8.33	1.38	1.91	1.31	15.18
W	1.85	10.91	1.66	3.92	1.05	20.01
A	1.88	5.54	1.18	2.20	1.36	15.38
<b>Duluth-Superior</b>						
SP	2.33	4.06	0.25	1.87	0.31	9.04
SU	3.13	6.90	0.21	0.57	0.49	11.69
F	2.73	4.42	0.23	1.97	0.23	9.83
W	1.95	3.80	0.24	3.32	0.20	9.71
A	2.52	2.02	0.23	1.96	0.31	10.06
<b>East Texas and Gulf Coast</b>						
SP	5.42	5.42	0.46	1.12	0.68	13.39
SU	5.48	5.34	0.43	0.56	1.53	13.64
F	5.35	6.42	0.54	0.76	0.46	13.87
W	3.81	5.91	0.55	1.99	0.37	12.96
A	5.06	4.63	0.49	1.09	0.77	13.47
<b>Florida</b>						
SP	4.67	5.98	0.88	0.87	0.77	13.51
SU	3.71	5.62	0.93	0.68	2.05	13.30
F	3.75	6.12	1.11	0.67	0.66	12.64

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	RCFM
W	3.77	8.24	1.21	1.24	0.51	15.43
A	3.98	3.69	1.03	0.86	1.00	13.67
Los Angeles						
SP	3.89	10.38	1.04	13.80	1.23	30.91
SU	6.36	12.80	0.98	16.20	1.09	38.14
F	4.67	13.96	1.54	15.85	1.59	38.39
W	1.64	12.94	1.71	9.31	1.27	27.59
A	4.24	9.88	1.32	13.97	1.30	34.17
Minneapolis-St. Paul						
SP	2.99	6.45	0.48	3.56	0.66	14.50
SU	3.05	8.15	0.48	0.81	0.85	13.81
F	2.63	6.42	0.56	2.50	0.51	12.97
W	3.22	6.73	0.48	5.64	0.41	16.86
A	2.96	4.19	0.50	3.00	0.62	14.41
Missoula						
SP	1.04	7.16	0.46	0.82	0.72	10.59
SU	1.04	16.28	0.57	0.61	0.68	20.09
F	1.37	13.43	0.72	1.37	0.54	18.17
W	1.79	13.29	0.87	3.90	0.47	21.05
A	1.29	9.96	0.65	1.55	0.61	17.52
Mid South						
SP	4.31	7.57	0.53	3.11	0.77	16.70
SU	6.23	8.84	0.55	0.86	1.21	18.18
F	4.35	7.75	0.61	1.84	0.61	15.59
W	3.03	7.74	0.56	4.95	0.53	17.24
A	4.52	5.42	0.56	2.62	0.78	16.91
North Dakota						
SP	1.95	3.71	0.27	1.77	0.63	8.55
SU	1.95	5.63	0.27	0.46	0.78	9.40
F	1.75	4.50	0.29	1.34	0.62	8.74
W	1.80	3.56	0.30	2.77	0.33	8.96
A	1.86	1.67	0.28	1.50	0.61	8.92
Northeast						
SP	4.54	5.64	0.67	2.19	0.49	13.84
SU	7.20	8.20	0.64	1.06	0.49	18.05
F	3.93	5.84	0.72	1.60	0.38	12.78
W	3.40	5.94	0.72	2.93	0.36	13.68
A	4.81	4.06	0.69	1.91	0.43	14.64
Northwest Nevada						
SP	0.94	6.65	0.70	0.67	1.15	10.48
SU	1.08	11.70	0.73	0.45	0.91	15.53
F	0.77	10.50	1.13	1.11	0.99	15.08
W	0.56	11.11	1.40	2.60	0.77	17.05
A	0.86	7.27	0.96	1.09	0.96	14.46
Ohio River Valley						
SP	5.11	6.81	0.66	4.33	0.84	18.12
SU	7.68	8.91	0.80	1.66	1.00	20.53
F	5.38	7.24	0.78	2.86	0.73	17.39
W	3.71	6.60	0.58	5.94	0.52	17.72

Season	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	OMC	LAC	NH <sub>4</sub> NO <sub>3</sub>	SOIL	RCFM
A	5.56	4.87	0.71	3.59	0.78	18.49
Phoenix						
SP	1.36	8.33	0.64	1.00	2.08	13.87
SU	1.95	7.36	0.48	0.54	1.79	12.53
F	1.68	10.30	0.96	1.46	1.61	16.58
W	1.15	14.90	1.70	3.49	1.21	23.26
A	1.54	7.35	0.93	1.56	1.69	16.39
Puget Sound and Portland						
SP	1.66	6.07	0.65	1.02	0.53	10.28
SU	2.30	5.71	0.49	0.73	0.50	10.04
F	2.17	9.99	1.03	1.58	0.47	15.79
W	1.62	8.85	1.01	1.47	0.40	13.84
A	1.96	5.73	0.79	1.19	0.47	12.46
Puerto Rico						
SP	2.60	4.61	2.14	0.56	1.36	11.53
SU	2.67	4.03	2.04	0.51	3.72	13.21
F	1.88	5.06	2.50	0.45	1.80	11.96
W	1.67	4.65	2.41	0.46	0.65	10.10
A	2.23	1.81	2.26	0.49	2.04	11.84
Sacramento & San Joaquin Valleys						
SP	1.86	8.35	0.57	3.83	0.90	15.98
SU	2.54	9.45	0.56	1.68	1.04	15.79
F	2.35	15.54	1.20	9.15	1.28	30.38
W	1.92	20.80	1.44	12.12	0.49	37.91
A	2.19	10.55	0.93	6.61	0.94	24.70
San Diego						
SP	3.50	7.17	0.60	4.54	0.77	16.97
SU	5.56	7.52	0.54	4.16	0.56	18.75
F	3.95	10.33	0.88	5.74	0.90	22.37
W	1.39	14.92	1.42	5.32	0.76	24.63
A	3.68	7.19	0.85	4.94	0.75	20.71
Southeast						
SP	5.57	8.49	0.76	1.26	0.78	17.32
SU	8.19	9.59	0.73	0.65	0.95	20.64
F	5.84	9.21	0.89	1.06	0.62	18.13
W	3.64	9.01	0.88	2.29	0.46	16.77
A	5.88	6.46	0.81	1.29	0.71	18.26
Upper Michigan						
SP	2.57	3.29	0.24	1.12	0.26	7.66
SU	3.41	6.96	0.20	0.50	0.36	11.81
F	3.25	4.51	0.24	1.31	0.18	9.74
W	2.03	3.25	0.21	2.36	0.15	8.19
A	2.79	1.68	0.23	1.37	0.23	9.30
Upper Michigan 2						
SP	2.41	4.94	0.34	1.36	0.39	9.71
SU	2.70	6.80	0.37	0.44	0.53	11.21
F	2.40	4.89	0.31	0.92	0.29	9.08

<b>Season</b>	<b>(NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub></b>	<b>OMC</b>	<b>LAC</b>	<b>NH<sub>4</sub>NO<sub>3</sub></b>	<b>SOIL</b>	<b>RCFM</b>
W	2.30	5.04	0.34	1.65	0.31	9.92
A	2.45	2.62	0.34	1.09	0.37	9.92
Wasatch Front						
SP	1.21	5.77	0.57	1.56	1.22	10.63
SU	1.39	8.46	0.58	0.42	1.01	12.33
F	1.40	8.80	0.96	3.10	0.85	15.60
W	3.09	12.52	1.30	11.54	0.71	29.86
A	1.74	6.05	0.84	4.02	0.95	16.84
West Texas						
SP	1.57	4.42	0.61	0.49	2.89	10.22
SU	2.22	4.96	0.48	0.28	2.02	10.24
F	1.94	5.04	0.76	0.51	1.25	9.79
W	1.29	6.97	1.20	1.55	1.70	13.09
A	1.78	4.71	0.75	0.67	1.95	10.73