SUPPORTING MATERIAL

Composition and source contributions of air particulate matter pollution in a New Zealand suburban town

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Table S1. Elemental analysis results for $PM_{2.5}$ in Wainuiomata (n = 222)

Species	Average (ng m^{-3})	Max (ng m^{-3})	Min (ng m^{-3})	Median (ng m^{-3})	StdDev (ng m^{-3})	Av LOD (ng m^{-3})	#>LOD	Signal/Noise Ratio
$PM_{2.5}$ (µg m^{-3})	6	46	<1	5	6			
H	162	805	0	125	133	22	221	0.042
BC	967	10 713	0	181	1 696	167	118	2.212
Na	406	3121	0	222	524	346	97	0.334
Mg	41	220	0	33	35	25	146	0.709
Al	19	114	0	16	14	13	151	0.752
Si	54	211	16	47	28	9	222	5.435
P	4	26	0	1	6	21	19	0.079
S	215	731	1	185	139	10	221	12.690
Cl	524	3 198	6	396	494	8	221	20.740
K	57	529	0	35	71	7	214	6.686
Ca	20	82	0	18	13	7	204	1.924
Sc	2	10	0	1	2	8	16	0.085
Ti	1	11	0	0	2	8	6	0.071
V	1	11	0	0	1	7	6	0.070
Cr	1	9	0	0	2	6	15	0.078
Mn	1	10	0	0	2	6	14	0.077
Fe	11	76	0	9	10	5	172	0.965
Co	1	9	0	0	2	7	13	0.075
Ni	2	46	0	0	4	8	13	0.091
Cu	2	30	0	1	4	10	23	0.086
Zn	6	47	0	3	8	12	57	0.134
Ga	3	22	0	0	4	16	17	0.077
Ge	4	47	0	0	6	21	15	0.079
As	9	91	0	0	15	27	44	0.102
Se	7	50	0	0	11	34	22	0.080
Br	10	117	0	0	17	43	36	0.085
Rb	16	159	0	0	28	72	29	0.085
Sr	21	140	0	0	29	91	26	0.081
Mo	65	552	0	0	104	254	36	0.089
I	6	32	0	1	8	25	14	0.091
Ba	4	48	0	0	7	23	5	0.083
Hg	11	86	0	0	18	58	14	0.081
Pb	17	147	0	0	28	76	21	0.086

Table S2. Elemental analysis results for $PM_{2.5-10}$ in Wainuiomata (n = 218)

Species	Average (ng m^{-3})	Max (ng m^{-3})	Min (ng m^{-3})	Median (ng m^{-3})	StdDev (ng m^{-3})	Av LOD (ng m^{-3})	# > LOD	S/N ratio
$PM_{2.5-10}$ (µg m^{-3})	7	20	1	7	4			
BC	277	1 461	0	228	188	161	174	1.338
Na	1 235	3 691	0	1 091	896	334	194	3.013
Mg	132	337	27	121	68	23	218	5.183
Al	73	356	8	60	52	12	216	6.277
Si	178	957	31	146	137	8	218	15.347
P	21	77	0	20	13	13	152	0.636
S	184	490	24	166	92	10	218	12.514
Cl	2 014	6 030	24	1 752	1 393	4	218	30.886
K	70	200	0	66	32	4	217	8.447
Ca	83	370	6	79	46	4	218	10.263
Sc	2	13	0	1	2	6	25	0.103
Ti	3	30	0	2	4	5	83	0.181
V	0	5	0	0	1	6	6	0.066
Cr	1	6	0	0	1	5	22	0.073
Mn	1	7	0	1	1	3	27	0.099
Fe	43	184	1	37	31	2	216	8.132
Co	1	6	0	0	1	4	9	0.075
Ni	1	4	0	0	1	2	41	0.088
Cu	3	24	0	2	3	2	101	0.307
Zn	4	34	0	3	5	3	111	0.531
Ga	0	4	0	0	1	3	9	0.073
Ge	0	4	0	0	1	4	4	0.070
As	1	12	0	0	2	6	15	0.084
Se	1	9	0	0	2	6	4	0.076
Br	4	25	0	3	5	10	38	0.113
Rb	2	20	0	0	4	14	5	0.074
Sr	3	27	0	0	5	17	8	0.078
Mo	9	76	0	0	16	48	6	0.081
I	8	53	0	5	10	17	47	0.155
Ba	8	41	0	6	8	16	42	0.164
Hg	2	15	0	0	3	11	4	0.080
Pb	2	26	0	0	4	16	2	0.070

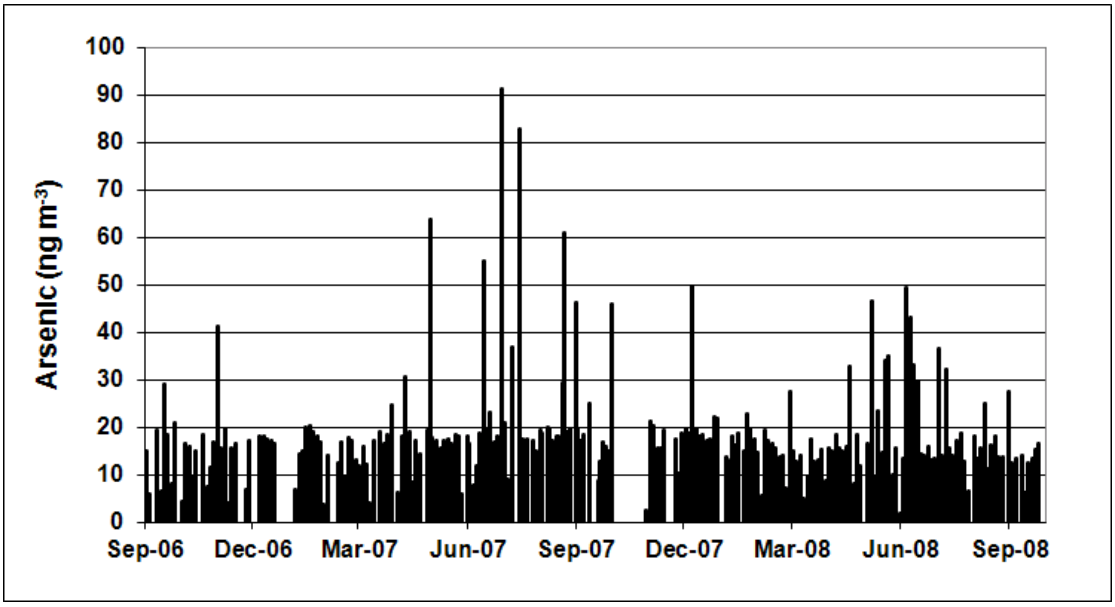

Figure S1. Time series plot for arsenic in $PM_{2.5}$.

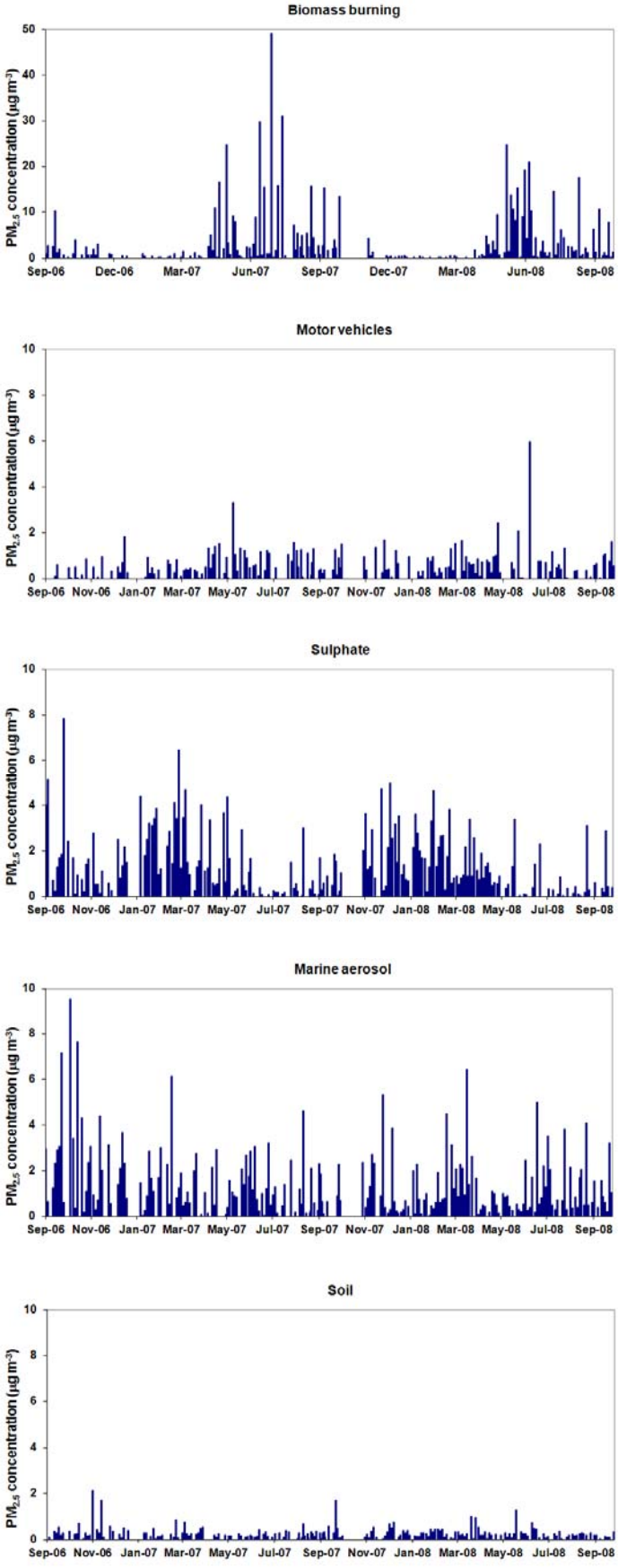

Figure S2. Temporal variation in relative source contributions to $PM_{2.5}$ mass.

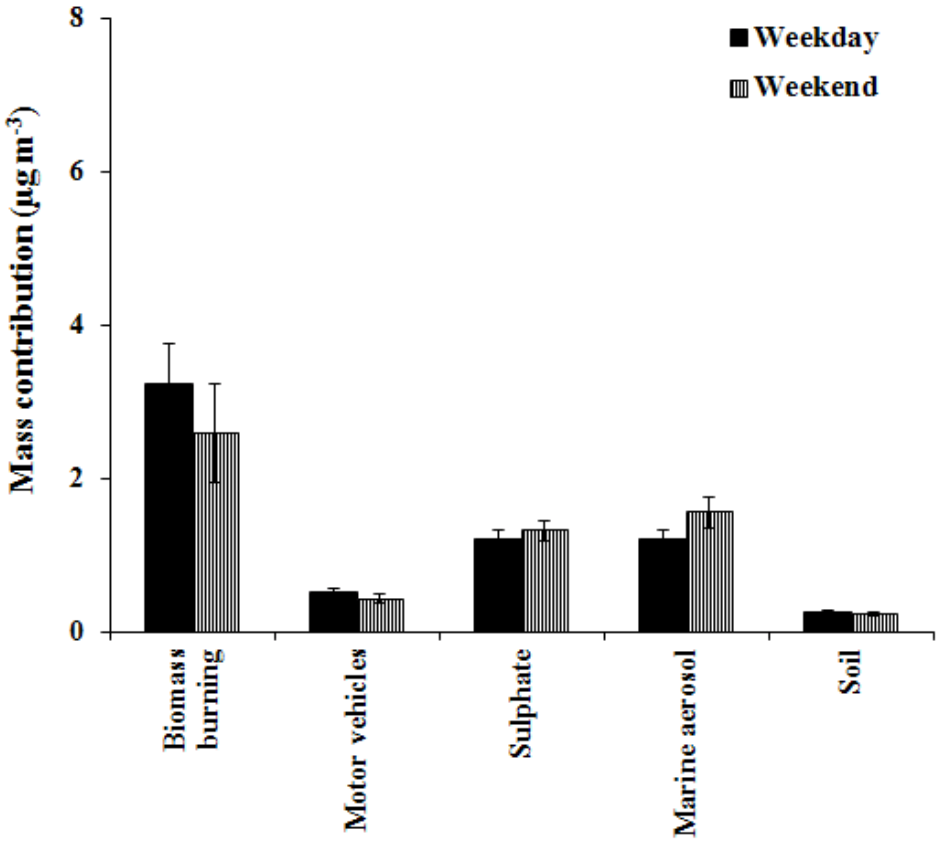

Figure S3. Weekday/weekend variations in $PM_{2.5}$ source contributions.

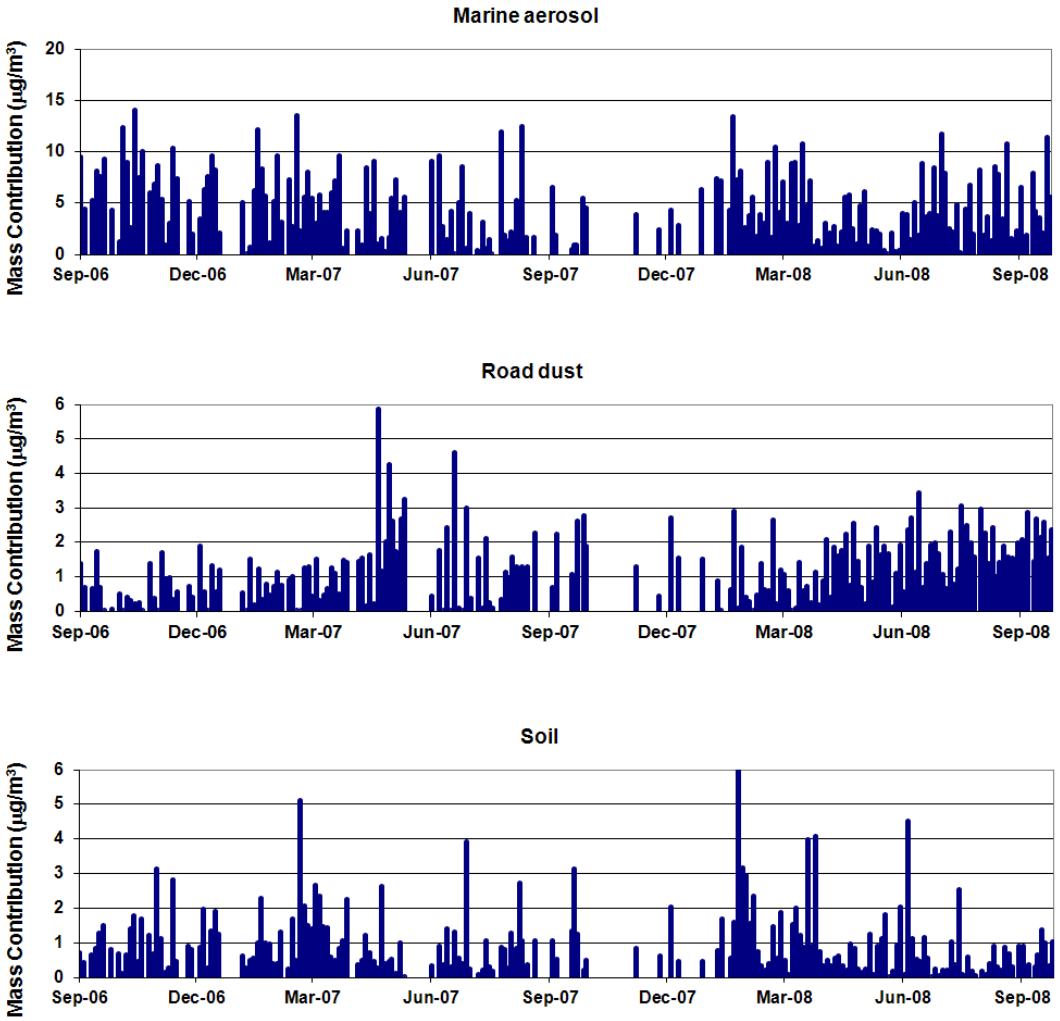

Figure S4. Temporal variation in relative source contributions to $PM_{2.5\text{-}10}$ mass.

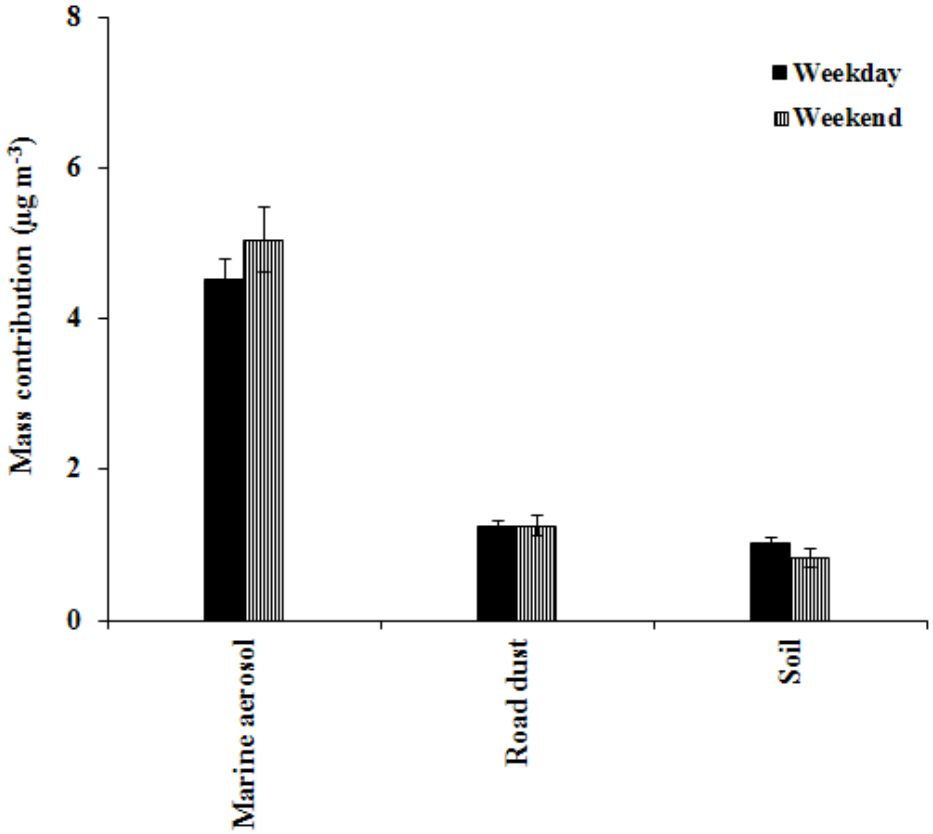

Figure S5. Weekday/weekend variations in $PM_{2.5\text{-}10}$ source contributions.